CALVIN

College

Catalog 2007/2008

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The Calvin College Catalog is published every academic year. While every effort is made to provide accurate, up-to-date information at the time of publication, Calvin College reserves the right to change, without notice, any statement in this publication concerning, but not limited to, policies, tuition, fees, curricula, course offerings, program requirements, faculty and other matters.

The information in this publication can be provided in an alternative format. Please call 1-800-688-0122 to request this service.

2007–2008

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Important Deadlines for Students	**Fall Semester**	**Spring Semester**
Last day to add classes	*September 10*	*February 4*
Last day to obtain any refund for full semester course drops/withdrawals (see financial services)	*October 11*	*March 6*
Last day to remove incompletes from the previous semester	*October 15*	*March 17*
Last day to change from credit to audit	*November 2*	*April 4*
Last day to drop course	*November 2*	*April 4*

Academic Calendar

The Fall Semester 2007

August	21–23	Tues – Thurs	New Faculty Orientation
	29	Wednesday	Fall Conference for Faculty and Staff
	29	Wednesday	Residence halls open
	29–1	Wed – Sat	Orientation and registration
September	4	Tuesday	First semester classes begin 8:00 a.m. (Modified opening day schedule)
	4	Tuesday	Convocation 9:50-10:50 a.m.
October	19	Friday	First session half-semester courses end
	22	Monday	Second session half-semester courses begin
	23–24	Tues – Wed	Academic Advising recess
	24	Tuesday	Registration for interim and spring semester begins
November	21	Wednesday	Thanksgiving recess begins at 5:00 p.m.
	26	Monday	Classes resume 8:00 a.m.
December	7	Friday	Classes end at 10:00 p.m.
	8	Saturday	Reading recess
	10	Monday	Examinations begin 9:00 a.m.
	14	Friday	Examinations end and Christmas vacation begins 10:00 p.m.

The Interim 2008

January	3	Wednesday	Interim term begins 8:00 a.m.
	23	Tuesday	Interim term ends 5:00 p.m.

The Spring Semester 2008

January	29	Tuesday	Spring semester classes begin 8:00 a.m.
	30	Wednesday	Spring Semester Convocation (Modified opening day schedule)
March	7	Friday	Classes end / spring break begins at 5:00 pm
	10–14	Monday–Friday	Spring break
	17	Monday	Classes begin 8:00 a.m.
	20	Thursday	First session half-semester courses end
	21	Friday	Good Friday – no classes – campus closed
	24	Monday	Second session half-semester courses begin
April	16	Wednesday	Honors Convocation
	22–23	Tues – Wed	Academic advising recess
	23	Wednesday	Registration for fall semester begins
May	8	Thursday	Friday class schedule in effect
	8	Thursday	Classes end 10:00 p.m.
	9	Friday	Reading Recess
	10	Saturday	Examinations begin at 9:00 a.m.
	15	Thursday	Examinations end 10:00 p.m.
	16–17	Friday – Sat	Commencement activities
	17	Saturday	Commencement ceremony 2:00 p.m.

The Summer Sessions 2008

May 21 – June 11	Session I –	Three week session
May 21 – June 18		Four week session
No class May 26, Memorial Day		
June 19 – July 10	Session II –	Three week session
June 19 – July 17		Four week session
No class July 4, Independence Day		
July 21 – August 8	Session III –	Three week session

King of all days, oh
so highly exalted
Glorious in heaven above
Humbly you came to the
Earth you created
All for love's sake
became poor

Mission of the College

Vision

Calvin College is a comprehensive liberal arts college in the Reformed tradition of historic Christianity. Through our learning, we seek to be agents of renewal in the academy, church, and society. We pledge fidelity to Jesus Christ, offering our hearts and lives to do God's work in God's world.

Purpose

Our primary purpose is to engage in vigorous liberal arts education that promotes lifelong Christian service. We offer education that is shaped by Christian faith, thought, and practice. We study and address a world made good by God, distorted by sin, redeemed in Christ, and awaiting the fullness of God's reign. We aim to develop knowledge, understanding, and critical inquiry; encourage insightful and creative participation in society; and foster thoughtful, passionate, Christian commitments. Our curriculum emphasizes the natural, cultural, societal, and spiritual contexts in which we live; our teaching respects diverse levels, gifts, and styles of learning; and our learning proceeds as a shared intellectual task.

Another purpose is to produce substantial and challenging art and scholarship. We pursue intellectual efforts to explore our world's beauty, speak to its pain, uncover our own faithlessness, and proclaim the healing that God offers in Jesus Christ. We strive to embrace the best insights of Christian life and reflection; engage issues in the intellectual and public spheres; and enrich faith by the heritage of the past and the discoveries of today. Our faculty and staff are committed to keen and lively work in their chosen fields and to sharing its fruits with others.

We are also called to perform all our tasks as a caring and diverse educational community. We undertake our tasks in response to a divine calling. Together, we challenge ourselves to excellence as we acquire knowledge, cultivate aspirations, and practice lives of service. We seek to gather diverse people and gifts around a common pledge and purpose; pursue justice, compassion, and discipline; and provide a training ground for the life of Christian virtue. Our classrooms embody a community of faith and learning extending across campus and beyond.

Commitment

We profess the authority of scripture and the witness of the ecumenical creeds. We affirm the confessions and respect the rich traditions of Reformed believers worldwide and, in particular, those of the Christian Reformed Church. We aim to enhance the cultural life about us and to address local needs. In all we say and do, wherever we may be, we hope to follow and further the ways of God on earth.

Christian Community

Calvin College is a Christian academic community of faculty, students, and staff who come together for the purpose of pursuing liberal arts education in the Reformed Christian tradition. Members of the community experience the common bond of lives committed to Jesus Christ, of relationships guided by biblical principles of love, justice, and righteousness, and of gifts used for God's glory and the furtherance of His kingdom.

A commitment of the community is to seek, nurture, and celebrate cultural and ethnic diversity, in obedience to the biblical vision of the kingdom of God formed 'from every tribe and language and people and nation'. Its members are part of the family of Christ that transcends ethnic, cultural, racial, gender, and class boundaries; a community in which each member earnestly desires to use his or her gifts for the service and support of the other

members. The Calvin community has come together from wide-ranging backgrounds and places. Personal and spiritual maturity is uneven, expectations and goals, diverse. Obviously unanimous agreement by every member on the community's shared commitments is quite impossible. While no one is forced to acknowledge Jesus Christ as Lord, each one who has chosen to join the Calvin community thereby declares he or she is willing not to violate the community's values and commitments. While each member is chiefly accountable to God for his or her own life's pattern, all members also bear responsibility to and for one another in this community. God's infallible Scripture provides a trustworthy guide for our faith and life together. In addition to the explicit teachings of Scripture, which members strive to uphold, the college community also chooses to maintain certain standards of behavior for prudence and good order in our life together.

The History of the College and its Objectives

Calvin College is a college of the Christian Reformed Church, a century-old denomination with a five-century-old heritage. It bases its whole faith and life on the sacred Scriptures, God's holy, inspired, infallible Word, and thus takes its stand with the churches, which have their roots in the Protestant Reformation.

In America the Christian Reformed Church traces its origin to a band of immigrants who sought freedom in the nineteenth century from the established church of the Netherlands. They settled in western Michigan and, after an early period of religious unrest among the thousands of Dutch settlers who soon joined the earlier immigrants, organized the Christian Reformed Church in 1857.

The Christian Reformed Church subscribes to three statements of faith (in addition to the early Christian Apostles Creed), which stem from the Reformation period: the Heidelberg Catechism, which is the most famous and widely translated of all Reformation creeds; the Confession of Faith written by the Belgian theologian, Guido de Bréges, in 1561; and the Canons of Dordt.

The Christian Reformed Church stresses the sovereignty of God in every part of life— in the family, the church, and the state; in world affairs; in economic, social, and political life; in business; and in learning and the arts.

The founders of Calvin College came from the conservative wing of the Reformed churches in the Netherlands and honored John Calvin as the founder of that tradition. They believed that John Calvin had set out the best systematic formulation of the Christian faith and in so doing had created a foundation for all proper study of God's world. They were further inspired by his concern for higher education, in founding the Geneva Academy, and his all-embracing activism by which he sought to promote the reform of society and culture, as well as the church, according to the word of God.

The founding date of Calvin College and Seminary is 1876. In that year the Christian Reformed Church adopted a six-year curriculum for ministerial training. The first four of these years were spent in the Literary Department and the last two in the Theological Department. In 1894 students who were not pre-theological students were admitted to an expanded curriculum, and thus the school became a type of preparatory school or academy. In 1900 the curriculum was further broadened and made more attractive to students interested in teaching or in preparing for pre-professional courses in the universities. By 1906 the Literary Department, which provided the four-years of preparatory and two-years of college work, became known officially as the John Calvin Junior College. The two-year college in time became a four-year college, and the preparatory department was discontinued. In 1921 Calvin College awarded its first Bachelor of Arts degree.

The school, which had started with seven students, grew slowly during the early years, but by 1930 it had reached its pre-World War II size of 350–450 students. By 1950 the enrollment had climbed to 1,270 and now is approximately 4,200.

The curriculum has expanded to include professional training in a variety of fields, but the college maintains a strong commitment to its liberal arts curriculum as a means to develop students' understanding of God's world and their place in it.

Government

The corporate name of the college is Calvin College. It is governed by a single board of trustees, which represents the ecclesiastical geographical districts of the church. The membership of the board is constituted of representatives elected by the various classes, nominations from the alumni association, and by the board of trustees. These are approved by synod. The Board of Trustees meets in October, February, and May. An executive committee functions for the board throughout the academic year.

Compliance with Legal Requirements

Calvin College, in accordance with Title VI of the Civil Rights Act of 1964, operates in a non-discriminatory manner with regard to race, color, age, or national origin. Furthermore, as required by Title IX of the 1972 Education Amendments, Calvin College does not discriminate on the basis of sex in its educational programs, activities, or employment policies. Calvin College also provides equal opportunity for qualified handicapped persons in accordance with the requirements of Section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act of 1990. Instructional and other physical facilities are readily accessible to handicapped students and special rooms in the residence halls are designed for barrier-free living. The Director of Student Academic Services provides advice and support to students with disabilities. Inquiries and appeals regarding compliance with these federal requirements should be directed to the Vice President for Administration and Finance, Calvin College Financial Services Office, as Civil Rights, Title IX, and Section 504 coordinator. Student appeals will be heard by the Academic Standards Committee.

Accreditation and Affiliation

Calvin College is accredited by the Commission on Institutions of Higher Education of the North Central Association of Colleges and Schools. It is also accredited by the American Chemical Society, National Association of Schools of Music, and the National Council for Accreditation of Teacher Education. The Calvin Nursing Program has applied for accreditation from the Commission on Collegiate Nursing Education and is approved by the Michigan Board of Nursing; the Engineering Program is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (A.B.E.T.); and the Social Work Program is accredited by the Council on Social Work Education. The accreditation documents from these agencies are on file in the Office of the Provost and are available for review in that office upon request.

The College also has membership in a number of professional associations and organizations. It is on the American Association of University Women list of institutions qualified for membership in the association. It maintains membership in the American Council on Education, the Association of Independent Colleges and Universities of Michigan, the National Association of Independent Colleges and Universities, the Council of Independent Colleges, the American Association of Colleges for Teacher Education, the Mathematical Association of America, the Michigan Academy of Science, Council for Christian Colleges and Universities, Arts, and Letters, and the American Mathematical Society. It is a member of the Christian College Coalition, Michigan Campus Compact, and is an affiliate member of the American Society of Engineering Education.

Calendar, Summer School

The academic calendar at Calvin College forms the typical 4-1-4 plan consisting of two semesters, each approximately four months in length, plus a one-month interim term in January. Students normally take 12–17 semester hours during each of the two semesters and 3–4 semester hours during the interim.

The summer semester offers 3–4 week courses with daytime and evening courses and weeklong graduate workshops. Students can normally complete up to three regular courses during the summer session.

Student Life

Our Mission

As servants of God and partners in education,
We challenge and support students as they
Seek meaning in their college experiences.

With delight and anticipation, we present them to the world
As a people who are learning to love the things that God loves,
So that the world is blessed by their leadership.

College is a stimulating, challenging, and exciting experience. Students explore new ideas, develop new skills, wrestle with difficult topics, and establish lifelong friendships. The Student Life Division at Calvin College helps students engage these experiences by offering a wide array of programs and services that are consistent with, and complement, the other educational opportunities at Calvin. The Student Life Division finds joy in facilitating a rigorous, Christ-centered learning environment in which students can flourish. We desire to see students become different people during their four or more years at Calvin. We hope that they will come to love the things God loves and that they will find themselves equipped to lead in the places where God calls them.

The eight offices of the Student Life Division are eager to challenge and support students as they develop their gifts and interests. These include the Broene Counseling Center, Campus Safety, Career Development, the Office of Christian Formation, Judicial Affairs, Health Services, Residence Life, and Student Development. With more than 80 creative, dedicated staff members, the SLD is well equipped to serve Calvin students in their holistic development. For more information on the Student Life Division at Calvin College, please visit our website at www.calvin.edu/studentlife.

Broene Counseling Center

The Broene Counseling Center offers comprehensive and high-caliber services in a confidential manner. The staff offers evaluation, counseling, and support within a Christian framework to any student dealing with emotional struggles, psychological problems, or personal concerns. Individual and group counseling are available, as are workshops and other special programs. Broene Counseling Center staff can also help direct students to a variety of books, pamphlets, and other resources on pertinent information such as depression, anxiety, relationships, sexuality, alcohol, stress, eating disorders, and much more.

Counselors are available by appointment. There are also walk-in times Monday through Friday from 3:30 p.m. to 4:30 p.m. when students can meet with a counselor without a pre-arranged appointment. Center hours are 8:00 a.m. to 5:00 p.m. Monday through Friday. Counseling services are available year around for any Calvin student. Appointments can be made directly by stopping in at the Center, which is located on the third floor of the Spoelhof College Center, or by calling 526-6123. Students can also visit the Center's website at www.calvin.edu/admin/broene/ for more information.

Campus Safety

The mission of the Campus Safety Office is to serve the Calvin community by promoting mutual responsibility for campus safety. It strives to ensure a safe and well-ordered campus environment, relevant educational initiatives, and respectful service of the highest integrity to members of our campus community. Our staff is available 24 hours a day, seven days a week. Please visit our website at www.calvin.edu/admin/campus_safety/ for more information.

Career Development

The mission of the Career Development Office is to assist Calvin students and alumni with career development activities that include career assessment and testing, career counseling, internship participation, job search planning, and leadership skills acquisition. Although not a placement service, this office helps students discover and explore the variety of careers available to them. The office uses the Myers-Briggs and Strong Interest Inventory to assist students in selecting a major. Personal guidance is provided for job search techniques such as résumé writing, networking, and interviewing skills. Students are also encouraged to explore and participate in a wide variety of internship and experiential education opportunities available through the Career Development Office. These "hands-on" experiences provide students with the opportunity to explore multiple career options during their college years.

The Career Development Office uses CalvinLink to coordinate the on-campus job posting and interview process. This program enables students to easily submit personal and academic information to the career center, upload résumés and cover letters, search for jobs, and select on-campus interview times. Seniors seeking job search assistance are asked to register for services early in their final year at Calvin. A one-time $40 career services fee is charged to first-year students, which covers all career services throughout their experience at Calvin. Of that fee, $15 is refunded via a Campus Store gift certificate to students who report their employment status within six months of graduation.

The Career Resource Center on the second floor of the Hekman Library provides a significant collection of print and computerized resources, including updated information on occupations, employers, and employment opportunities throughout the world. This state-of-the-art facility is indispensable for students needing help during any stage of their career-planning journey. The Career Resource Center also houses materials for students interested in graduate school programs. Career counselors are available by appointment or during "walk-in" times. The Career Development Office is open from 8:00 a.m. to 5:00 p.m. weekdays. The Career Resources Center is open during library hours. The services of the Career Development Office are available year-round.

Office of Christian Formation

God calls his people to seek him in all things. We seek him through our studying and conversing, our playing and worshipping. The Office of Christian Formation seeks to support and provide several specific avenues for students to grow as faith-filled, faithful people.

To grow in loving devotion to God is the goal our Lord places before his followers. Public worship is a means of acknowledging God's presence in our lives and of maturing in the Christian faith. Chapel services are held each weekday, Monday through Friday, at 10:00 a.m. in the Chapel. In addition to the main service, several foreign-language worship services are held regularly in the Meditation Chapel (located in the Chapel's undercroft.) On Sundays, students are expected to worship at a local church or at the student worship service, The LOFT (Living Our Faith Together), which is held in the Chapel at 8:00 p.m.

Opportunities for Christian leadership development abound through this office. The Mentoring Program provides students the chance to walk with a staff/faculty member or Calvin alum as they consider who they are and who God calls them to be. Each academic year, twenty students are selected to comprise the Barnabas Team. They are mentored and trained by the Directors of Christian Formation for ministry among their peers living in the residence halls and apartments. The Directors of Christian Formation also oversee student leaders working to enhance community and ministry among their peers who live off campus. Student-athletes also have opportunity to grow in their leadership skills through a summer training retreat and ongoing support from the Coordinator of Christian Formation for Athletics and Team Development.

Numerous opportunities exist for other voluntary religious activities, including Bible study groups; prayer groups; Christian service and evangelistic outreach projects; and group

fellowships such as InterVarsity Christian Fellowship, Young Life, and Campus Crusade.

The college Chaplain provides pastoral care for the college community. Students or staff who are in need of spiritual counsel are encouraged to contact the Chaplain.

Other Christian Formation Initiatives

Two additional programs not specifically under the purview of the Office of Christian Formation also exist to help students explore particular areas of gifts and calling. Student Worship Apprentices work with staff members to plan and participate in student-based worship throughout the academic year. In another effort, twelve promising college juniors are selected each year as Jubilee Fellows in a scholarship, study, and service program for those strongly inclined toward Christian ministry.

As an information source for students across the disciplines, the Ministry Resource Center (located in the Hekman Library) provides materials for those involved in on- and off-campus ministry. It is designed to connect students with gifts in art, theater, music, dance, writing, languages, counseling, business, technology, and other fields with ministry uses.

Please consult the "Faith" link on the college's website at www.calvin.edu for further information regarding campus opportunities for worship, discipleship, and prayer.

Judicial Affairs

Calvin College is a learning community where students can grow from a variety of experiences, even in their mistakes. The Judicial Affairs Office works with students, faculty, and staff to provide a ministry of support and intentional educational interventions with students who are in crisis, or those who are in violation of the community standards of Calvin College.

Health Services

Outpatient medical services are provided on campus to all registered students during the regular school year. Health Services (HS), located in the lower level of Heyns Hall, is open weekdays with limited evening hours available. Visits are scheduled by appointment only unless immediate care is medically indicated. Medical services are provided by nurse practitioners and part-time physicians. When necessary, students are referred to area providers for additional care. Call (616) 526-6187 to schedule an appointment.

Primary care services include evaluation and treatment of common illnesses and injuries, allergy injections, STD testing and treatment, women's health exams, smoking cessation counseling and treatment, and physical exams for sports, travel, and employment. Lab and medication services are also available to HS clients.

The travel health and immunizations staff provides comprehensive pre- and post-travel consultation, personal medical evaluations, immunizations, prescriptions, and tips for staying healthy while abroad. All vaccines and medicines for preventative health and off-campus travel are available at Health Services.

Immunization Policy: Calvin requires all incoming students to show provider-documented immunization status for polio, diphtheria, pertussis, tetanus, measles, mumps, rubella, varicella, hepatitis B, and tuberculin skin testing. The college also wants students be informed about and consider vaccination for bacterial meningitis. Call our Immunizations and Insurance Office for further information (616) 526-6568.

Student Health Insurance: To ensure that students have access to necessary medical care, Calvin College requires that all students have health insurance coverage. KnightCare, a plan designed for Calvin students, provides year round coverage at a reasonable cost. All students will be automatically enrolled in KnightCare unless they provide proof of comparable coverage and sign a waiver form by the specified date. Detailed up-to-date information is available by calling our Immunizations and Insurance staff (616) 526-6568 or by visiting the HS website at **www.calvin.edu/admin/health/knightcare/index.htm.**

Residence Life

Living on campus is an integral part of the Calvin College educational experience. The learning that takes place within communities of residents is a catalyst for social, spiritual, moral, and intellectual development. The seven traditional residence halls, with rooms configured in suites of two rooms and one bathroom (two students per room), and the eleven apartment-style buildings (four or five students per apartment) are all located within short walking distance of academic buildings and parking. All residence halls are staffed by full-time, Masters-level staff members who supervise various student leadership groups and ensure a safe, healthy, and developmental environment for all residents. All student rooms are furnished and have internet and campus cable access. Storage and quiet study rooms are available in hall basements, laundry facilities are free, and meal plans provide a wide variety of food options at every meal. For more information, visit the Housing and Residence Life website at **www.calvin.edu/admin/housing**.

Calvin acknowledges this important co-curricular ingredient by requiring all first and second year students to live on campus, and by encouraging continued on-campus housing for students beyond their first two years when it is no longer a requirement. Exceptions to the residency requirement are granted only for students commuting from their parents' place of residence, students who are married, part-time, or 21 years or older, or students who are two years beyond their high school graduation date.

Student Development

The Student Development Unit is made up of four distinct areas: Student Development Office, Multicultural Student Development, Service-Learning, and Student Activities. The office staff (Dean of Student Development, Associate Dean of Student Development) will be some of the first people you meet once you matriculate to Calvin. They plan and implement the orientation programs (for further information, please refer to our website at www.calvin.edu/orientation) of the college, namely PASSPORT (summer program), Wilderness Orientation Program (WOP), INTERNATIONAL PASSPORT (program for international students), QUEST (fall program) and TRANSITIONS (mid-year program). The office staff also provide a wide range of services for off-campus students (over 40 percent of the student body resides off campus), as well as leadership and administration to the nearly sixty student organizations on campus. Please visit our website at **www.calvin.edu/sdo**.

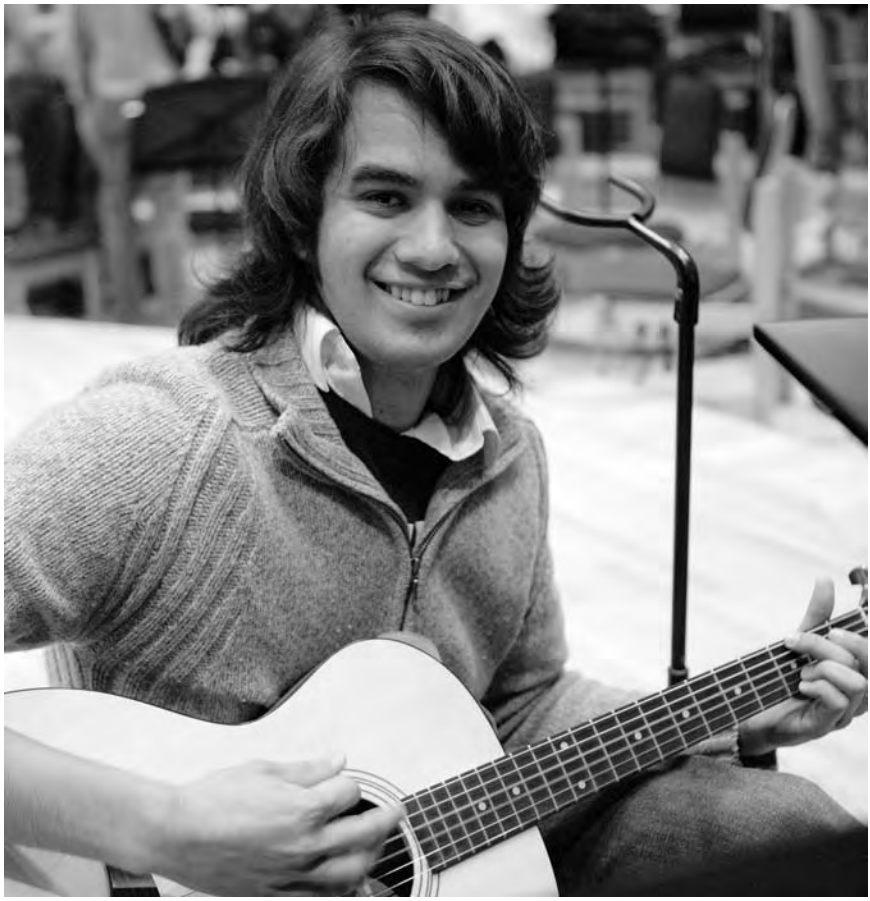
The Multicultural Student Development Office strives to support the college's mission to become a genuinely multicultural, anti-racist, Christian academic community by offering programs and support services for all students. These programs are designed to address the Student Life goals outlined in the "From Every Nation" document by providing forums for discussion and springboards to activism. Students are encouraged to increase their understanding of the historical underpinnings of today's racialized society and be able to discern manifestations of systemic racism. As a result, the MSDO hopes to contribute to a generation of citizens who are convicted by faith to restore global justice and shalom. Please visit our website at **www.calvin.edu/msdo** for further information.

The Service-Learning Center has as its motto, "Learning to Serve—Serving to Learn." Service-learning refers to the wide range of activities designed to meet needs within the local community while simultaneously developing knowledge, skills, and virtues in participating students. Students' participation in service-learning comes largely in the form of weekly service activities with a primary emphasis on reciprocal relationships within the Grand Rapids community. Students may also participate in academically-based service-learning, or service integrated within the context of a college course. Students connect conceptual content from their courses to their experiences in the community through structured reflection. Please visit our website at **www.calvin.edu/slc** for further information.

During college, students may learn and change more than any other period in their lives. This process of learning and changing takes place everywhere -- in classrooms, through all-night dorm discussions, and at a concert or movie on campus. Calvin encourages students

to embrace and apply a Christian worldview in all areas of life, including popular culture. As a result, the Student Activities Office staff plans an entire season of the best possible concerts, movies, comedy, theater, and other activities that will help students to evaluate critically these events in light of their faith, from a concert by Patty Griffin, a lecture by Bruce Cockburn, a movie such as *Blood Diamond*, or a major event such as the bi-annual Festival of Faith and Music, which hosts over 1000 conferees. Please visit our website at **www.calvin.edu/sao** for further information.

Student organizations are an integral part of campus life at Calvin. Students who involve themselves in their education through co-curricular activities enrich their own education. Involvement in student organizations is a great opportunity for students to develop their leadership skills, expand their interests, and build relationships. Students are encouraged to create new student organizations that reflect their interests, and to get involved with existing organizations that suit their interests and fit their schedules. All student organizations must have a faculty advisor, but they are run by the students. The Student Life Committee, the Dean and Associate Dean of Student Development, and the Coordinator of Student Organizations oversee and support the activities of student organizations. The nearly sixty student organizations range from Chimes (the student newspaper) to the Environmental Stewardship Coalition to the IMPROV team. An updated list can be found on Calvin's website under Student Organizations at **www.calvin.edu/resource/student.htm**.



Services for Students

The Fine Arts

Many sorts of fine arts activities thrive at Calvin, both as part of the academic life and as the result of spontaneous student interest. Bands, orchestras, choral groups, and chamber ensembles are part of the program of the Department of Communication Arts and Sciences. Students from all departments participate. The long, Calvin tradition of creative writing for publication and for private reading is encouraged by the members of the Department of English. Dialogue, a student literary magazine, and Chimes, the campus newspaper, provide opportunities for student publication.

The Department of Art seeks to arouse interest in the various visual arts. It sponsors workshops, visiting artists, and speakers. Regular educational exhibitions in the Center Art Gallery and a visible permanent art collection provide visual stimulation, aesthetic quality, and an enhancement of the total Calvin environment through the celebration of a rich cultural heritage and support of the art activities of students, faculty, alumni, and other Christians. The student-organized Fine Arts Guild and its sub guilds in Dance, Visual Arts, Music, and Writing provide independent expression and dialogue regarding the arts among all the students.

Intercollegiate and Intramural Athletics and Recreation

Intercollegiate athletics play an important role in student life at Calvin. Calvin is a member of the Michigan Intercollegiate Athletic Association (MIAA) and the National Collegiate Athletic Association (NCAA). Calvin men compete in cross-country, golf, basketball, soccer, swimming, baseball, track, and tennis. Calvin women compete in cross-country, golf, volleyball, basketball, swimming, track, softball, tennis, and soccer. We also have club teams in men's hockey, volleyball, and men's and women's lacrosse. To be eligible to participate in intercollegiate athletics, a student-athlete must be enrolled in a minimum of 12 semester hours each semester, be in academic and disciplinary good standing, and be making normal progress toward graduation. Academic good standing is defined in the table and notes found on page 28 of this catalog and the disciplinary standards are listed in the Student Handbook. Students on disciplinary probation are ineligible to participate in intercollegiate athletics. For the purposes of athletic eligibility, normal progress toward a degree is defined as accumulating at least 12 semester hours of credit each semester plus the completion of 3 interim courses in a 4-year program.

Intramurals are also an important phase of the physical education program and provide all students with the opportunity to participate throughout the year in a variety of programs.

Both indoor and outdoor facilities are available for recreation whenever classes or scheduled contests are not being conducted.

Student Senate and Other Organizations

The Student Senate serves as an advocate for student issues. It also allocates the budget of student organizations and concerns itself with student publications, homecoming, film arts, the campus radio station, and similar groups.

Over fifty-five student organizations exist on campus, some of which are related to particular academic departments. All organized clubs have a faculty advisor and receive formal approval through the Student Life Committee.

Student Conduct

Admission to Calvin College is a privilege that may be withdrawn from any student who does not meet the academic and conduct standards of the college. In addition, the college not only expects students to conduct themselves both on and off campus in ac-

cord with the Christian goals and standards of the college, but also may refuse admission to, may discipline, may suspend, or may expel any student who, in its judgment, displays conduct or attitudes, whether on or off campus, unworthy of the standards of the college. The Student Handbook and Residence Hall Living booklets describe the regulations and their implementation.

The Discipline Code, approved by the Faculty, the Student Senate, and the Board of Trustees, is the official document, which spells out college regulations and judicial processes. A copy of this code, included in the Student Handbook, is also available at the Student Life Office.

While the Code does not seek to develop a detailed and exhaustive summary of what a student may or may not do, it does contain, in addition to Christian principles of behavior, a list of proscribed conduct for so long as a student is enrolled at Calvin College. Among those actions prohibited are all kinds of dishonesty, acts of violence, disruption of institutional activities, theft, unauthorized entry, sexual misconduct or harassment, use of alcoholic beverages on and off campus and at extended campus events, drunkenness, profane and obscene language, and use of illegal substances. Sanctions for misconduct range from verbal warning to expulsion.

The judicial processes require a hearing before the designated college administrators or before the Student Discipline Committee. The judicial process provides for appeal to the College Appeals Committee.

Student Protest and Appeals Procedure

At Calvin College the goal to become a model Christian academic community should direct the attempts to resolve conflicts, which may occur between students and faculty members. We would expect that members will all 'accept one another' (Romans 15:7) and that student protest and appeal will occur infrequently and only over matters of significance to the calling as Christian faculty members. Moreover the process of protest should be one which should lead to restoration of Christian community in which the members are affirmed and express love for one another.

1. On occasion, a student may have criticism of a professor for which he or she requests some action. Criticisms may regard the requirements of a course, the nature of a test, a grade received, teaching effectiveness, personal life-style, general performance, or sanctions given for academic dishonesty. The student should present such criticism directly to the faculty member. The student criticism should be heard and given serious attention by the faculty member.
2. If the faculty member's response does not satisfy the student, or if the student, for good reason, does not feel free to approach the faculty member, the student should bring the criticism to the department chairman or the academic dean. The chairman or the academic dean should work for resolution.
3. If the student or faculty member does not accept the advice of the chairman or academic dean, the academic dean will suggest one of the following procedures:
   a. If the complaint regards a sanction given by a faculty member for academic dishonesty, the student must follow the procedure outlined in 'The Student Conduct Code and Disciplinary Procedures' found in Section 4.2.8 of the Faculty Handbook.
   b. If the protest is on matters other than sanctions given by a faculty member for academic dishonesty, the academic dean will refer the issue to an ad hoc committee of two faculty members, a student, and the academic dean. The ad hoc committee should hear the student protest and hear the professor's response, as well as collect appropriate material evidence. The student, if he or she so chooses, may ask a student, faculty member, or a Student Life Division dean to give counsel at this hearing. The committee should work for resolution of the differences and prepare a written recommendation to the provost, a copy of which will be sent to the student and faculty member.

4. The decision of the ad hoc committee may be appealed to the provost by either the student or the faculty member. In cases where the student protest involves the academic standards, i.e., course requirements or grades, the decision may be appealed to the Academic Standards Committee. Cases where the protest involves teaching effectiveness, professional standards, religious commitment, or personal life-style may be appealed to the Professional Status Committee.
5. The report of either of these committees will be advisory to the provost, who will prepare a recommendation for the president.
6. Further appeals by the student or faculty member would be to the president and by way of the president to the board of trustees. Correspondence addressed to a member of the board of trustees should be sent to the Board of Trustees office, Spoelhof Center. Such correspondence is routinely opened by a member of the board staff and forwarded to the person to whom it is addressed and to the president. If the correspondence is marked 'confidential', it will be forwarded unopened to the trustee to whom it is addressed.
7. Students who wish to appeal a decision of another nature should contact the registrar or vice president for student life to determine the appropriate process.

Use of Motor Vehicles

Motor vehicles owned or operated by Calvin students must be properly registered with the Campus Safety Department and must carry an official college vehicle permit. Motor vehicles may be parked only in approved student parking areas, and the drivers will be fined if they park elsewhere. Because parking areas are limited, parking regulations are strictly enforced. The driving regulations and requirements of the Michigan Motor Vehicle Code apply to all driving when on the campus.

Orientation and Advising

All first-year students are required to participate in PASSPORT, a program of orientation held during the summer and/or just prior to QUEST, the fall orientation program. Throughout orientation, students will meet key faculty members and administrators, receive information about college academics, activities and facilities, obtain registration materials, and meet with a faculty advisor to plan for the fall semester. Transfer student orientation takes place during a special PASSPORT session or just prior to the beginning of the fall semester. All students are assigned individual advisors from the faculty. These faculty members keep office hours during which time they are available to assist students in making decisions about courses and programs.

Students are expected to assume responsibility for obtaining academic advising. They must keep themselves informed about curriculum requirements, both in the core curriculum and in their programs of interest; they are expected to initiate conferences with their advisors and to come prepared with up-to-date information about the courses they have completed; and they must be aware of academic deadlines and regulations.

By the end of the sophomore year, each student must work out with a faculty advisor the declaration of a major. The associate registrar for advising and other staff in the registrar's office are available to help students with advising problems.

Additional specialized advising is offered through Student Academic Services. The Broene Counseling Center offers career testing and counseling for helping students to select a major and/or career.

Hekman Library

Calvin's Hekman Library is one of the finest libraries in West Michigan. Its collection consists of nearly one million items (books, journals, microforms, government documents, recordings, etc.) available to students more than 100 hours a week. Its large, growing, digital library (www.calvin.edu/library/) includes nearly ninety subject-specific databases

that access journal articles and millions of full-text articles. A friendly, professional public service staff is eager to assist students and is readily available at posts just inside the main entrance on the second floor. The quiet, comfortable environment provides great places to study with ample carrels, tables, and lounge furniture. It is just one floor away from more than 200 computers in the Information Technology Center, providing seamless access to research material and the tools needed to complete assignments.

Several special collections are housed in the library. The H. H. Meeter Calvinism Research Collection, located on the fourth floor of the library, is one of the most extensive collections of books and articles on John Calvin and Calvinism available anywhere. The Colonial Origins Collection, which consists of manuscripts, archives, and other records of the Christian Reformed Church, its leaders, its Dutch origins, and closely related institutions, is located on the second floor of the library. The Calvin Library is a partial depository of government documents, holding approximately 125,000 items. Cayvan Services with its many recordings and tapes is available for both the study and enjoyment of music.

Information Technology

Calvin Information Technology (CIT) provides computing, printing, and telecommunication services to students, faculty, administrators, and staff of the college. Our vision is to promote and support information technologies at Calvin College that are appropriate to the academic and administrative needs of the college. The CIT offices, the Information Technology Center (the main student computer lab), and the Teaching and Learning Digital Studio, are located on the first floor of the Hekman Library.

The Teaching and Learning Digital Studio provides faculty a place where they can make use of high-end hardware, software, reference materials, and consulting services as they develop digital media to support their teaching or research.

The Information Technology Center (ITC) is available to all current students, faculty, and staff. This lab offers Windows and Macintosh computers attached to the college network and the internet, several computer classrooms, multi-media stations, CD/DVD burners, scanners, and laser and color printing. Each residence hall complex has a computer lab that is open 24x7 and many departments have student computer labs as well. Most computer labs provide access to MS Office, student email, library research tools, software for web browsing and web-page development, and a wide variety of academic software. Classrooms on campus are equipped with technology for teaching and student presentations.

Students have access to black and white printing in all computer labs on campus and to color printing in the ITC. Each student is allotted a $25 printing quota per semester which is the equivalent of 500 black and white pages. Any printing over the pre-defined quota is included in the student's Miscellaneous Charges Statement at the end of the semester.

Calvin provides a Novell account to each Calvin student as a location to store academic documents and personal files. A student can access his or her Novell account by logging into Novell on-campus or via the internet off-campus. Students are also given a Calvin email account and a KnightVision account. Through KnightVision students have access to student discussion boards, student organizations, course registration, course grades, course material, social activities, and more in an easy-to-use, on-line format. KnightVision is accessible from any internet browser. All student accounts remain active as long as a student is registered for classes and until October 1st following graduation.

Students residing in Calvin residence halls owning personal computers have access to the college network and the internet from their dorm room through ResNet. Students who bring laptop computers with wireless capabilities to campus are able to take advantage of airCalvin, Calvin's wireless network. Calvin provides Symantec Antivirus software free of charge to all students. This software is required along with maintaining up-to-date definition files in order to connect to ResNet or airCalvin. Additional requirements for ResNet and airCalvin can be found at http://www.calvin.edu/it/services/studentnetworkservices. Support for connecting to ResNet and airCalvin is available from the CIT HelpDesk.

There is one telephone and multiple phone jacks in each dorm room. Local calling is provided at no charge. Students needing to make long distance calls should make other arrangements. Calling cards may be purchased at the Campus Store.

Questions regarding technology services on campus may be directed to the CIT HelpDesk at 526-8555. Additional information about computer services can be found by visiting the CIT web site at **http://www.calvin.edu/it**

Campus Store

The Calvin Campus Store is located on the first floor of the Commons Building. Hours of operation throughout the school year are Monday, Wednesday and Friday 8:00 a.m. to 5:00 p.m., Tuesday and Thursday 8:00 a.m. to 7:00 p.m. and Saturday from 10:00 a.m. to 2:00 p.m.

A variety of merchandise is available to accommodate your needs such as textbooks, Calvin logo imprinted items, Calvin clothing, educationally priced computer software, general books, class rings, graduation announcements, health and beauty aids, greeting cards, candy, stamps, school supplies, mailing and shipping services and much more.

The Campus Store carries all of the textbooks required for classes. For complete information on textbook purchasing, please go to **www.calvin.edu/campus-store**.

Mail Services

Mail Services provides window service Monday through Friday from 8:00 AM to 5:00 PM at both its main building on the north end of campus near Lake Drive and in the Campus Store. Students may purchase stamps, send packages via U.S. Mail of United Parcel Service (UPS). Various overnight services are also available through this office.

To address mail to your son or daughter living in a residence hall:

Full name of student (avoid nicknames)
Room number and Residence Hall name (must include the word Hall)
Grand Rapids MI 49546- (ask your student for their extended zip code number)

If your son or daughter lives in a campus apartment please ask them for the complete address.

For complete details please see: **www.calvin.edu/it/mailservices/addr.htm**

You may also fax information to your son or daughter through Mail Services. The Campus Fax Number is (616) 526-8551. Students can either pick-up faxes at the Mail Services window or you can put their on-campus address on the cover page of your fax and it will be sent to them.

Printing Services

Offering the same benefits as a commercial printer and located with Mail Services, Printing Services provides fee-based high speed printing services with 24 hour turnaround for Calvin alumni, faculty, staff, students and non-profit organizations at a reduced cost. Printing Services is open Monday through Friday from 8:00 AM to 5:00 PM. For a complete list of services please see: **www.calvin.edu/it/printingservices**.

Instructional Resources Center

The IRC is comprised of the following group of departments and services:

The Audio-Visual Department

The A-V Department provides equipment, services, and facilities to produce and display a variety of media. Its facilities include a "paint and paper" workroom for students, which has materials for creating posters, banners, overhead transparencies, bulletin boards, labels, sorting slides, and so on. It also offers lamination service, passport and ID photos, video and audio duplication, and provides a wide variety of equipment for classroom support.

Instructional Graphics

Instructional Graphics provides design and production services to faculty and students for classroom or conference needs. These services include: graphic design of large posters, presentations, displays and bulletin boards; preparation of images and graphics for publication, converting slides and prints to digital files, and outputting files to a large-format inkjet printer.

Video Productions

The college's in-house media production department, is a professional video production facility that develops documentary and instructional video, such as *Inner Compass*, a weekly discussion of religious and ethical issues aired on the local PBS television affiliate, and other forms of multimedia. It also operates a video studio and student video-editing lab.

The Distance Learning Classroom

The Distance Learning Classroom is equipped to provide live, two-way video-and-audio conferencing connections to sites throughout the world.

The Curriculum Center

The Curriculum Center is a multimedia educational materials library designed to support the teacher education program. It is also available for use by other departments and programs.

Office of Student Academic Services

The Office of Student Academic Services in Hiemenga Hall 446 provides many forms of student learning assistance. Peer tutors for most core courses and some upper level courses are available to students whose professors agree that tutoring would be helpful. Also, academic counseling and testing are available for students with difficult learning problems. Students with disabilities, international students, and students for whom English is a second language receive services from the office as well. Certain students are required, as a condition of admission or as a requirement of probation, to participate in specified aspects of these services. Please see additional information under The Access Program and Academic Services, or visit our website at **www.calvin.edu/academic/sas**

Rhetoric Center

The Rhetoric Center, located in Heckman Library 207, offers free assistance with writing and oral presentations. Instructors often require or encourage their students to seek help at the Rhetoric Center, or students may at any time request an appointment with a tutor (appointments should normally be made ahead of time). Students from all disciplines and at all levels of experience are welcome. The Rhetoric Center is open Monday –Friday from 9:00 a.m. to 5:00 p.m. and from 7:00 p.m. to 9:00 p.m. Monday –Thursday, during fall and spring semesters.

The Calvin Alumni Association

The Calvin Alumni Association is committed to building community among Calvin College alumni and friends, providing opportunities for service to alma mater and inspiring alumni to answer God's call in life and vocation.

The Calvin Alumni Association, founded in 1907, is composed of all persons who have attended Calvin College for at least one year or who have completed eight courses. Persons who have graduated from Calvin Theological Seminary are also considered members of the Association. There are currently more than 35,000 Calvin graduates and 54,000 Association members around the world, many of whom are part of 35 local alumni chapters.

The Calvin Alumni Association is governed by a board of 24 alumni from all over North America, each serving three-year terms. The board meets three times each year— during Family Weekend (October), Homecoming (February), and Commencement (May). The work of the Association is facilitated by the Director of Alumni and Public Relations.

The Association sponsors *Spark*, the alumni magazine; services to alumni chapters; career networking systems; numerous educational and social programs, including "MBA@ Calvin" ("Meeting Business Alumni") and alumni class reunions; and contributes to faculty research projects. The alumni-financed program of grants and scholarships is of special interest to students. Information concerning all of these may be obtained from the Alumni and Public Relations Office, (616) 526-6142; on the web at **www.calvin.edu/alumni**; or via email at **alumni@calvin.edu**.

Calvin Centers and Institutes

The Calvin Institute of Christian Worship

The Calvin Institute of Christian Worship at Calvin College and Calvin Theological Seminary promotes the study of the theology, history, and practice of Christian worship and the renewal of worship in congregations. The Worship Institute provides courses on worship at the college and seminary, offers an extensive website of resources (**www.calvin.edu/worship**), hosts an annual conference on worship, offers regional workshops at sites across North America, sponsors both scholarly and practical books on worship, and furnishes grants and consulting services to congregations that seek to promote worship renewal, offering Calvin students opportunities to participate as interns, student staff members, and conference and research team participants.

The Nagel Institute for the Study of World Christianity

The Nagel Institute was founded in 2006 as a research and educational agency of Calvin College. The Institute aims to do three things: 1) promote a deeper understanding of Christian movements from the global South and East; 2) partner with Christian scholars and support Christian thought and cultural engagement in the global South and East; and 3) provoke a reorientation of Christian thought and cultural expression in the global north toward the concerns of world Christianity. The Nagel Institute serves students with support for courses on world Christianity, frequent lectures by scholars from Africa, Asia and Latin America, and support for student-led initiatives in this field.

The January Series

The January Series of Calvin College is a month-long lecture/cultural enrichment series given each year during Interim. It is the premiere series of its kind in the United States. The *Series* has been awarded the prestigious Silver Bowl Award for 'The Best College and University Lecture series in the USA' three times and the award has since been retired. Presentations during the past few years were transmitted live over the World Wide Web allowing listeners to tune in all over the world. Many of the presentations are archived and can be accessed at www.calvin.edu/january.

The award winning *Series* takes place for fifteen consecutive weekdays during the month of January in the Fine Arts Center Auditorium from 12:30 p.m. to 1:30 p.m., and is offered as a free gift to the students, staff and faculty of Calvin College as well as to all of West Michigan.

Each presenter is widely recognized as a credible and articulate authority in his or her field of expertise. Scheduled to date for the 2008 Series are: Douglas Diekema, Sonia Nazario, Bill McKibben, Michael Griffin, Ishmael Beah, Margaret Lowman, Timothy George, William Garvelink, Sigval Berg, Eleanor Clift, and James Abbington.

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Admission and Standards

Procedures for Admission

In selecting students for admission, Calvin College looks for evidence of Christian commitment and for the capacity and desire to learn. Students who are interested in the Christian perspective and curriculum of Calvin and who show an interest in its aims are eligible for consideration. Although the prospect of academic success is of primary consideration, the aspirations of the applicant, the recommendation of a high school counselor, teacher, or principal, and the ability of Calvin to be of service will also be considered in admission decisions. The college admits students of any race, color, and national or ethnic origin.

Applicants will be notified concerning admission shortly after the Office of Admissions receives the following:

1. Completed Application Form (available online at www.calvin.edu/apply);
2. Non-refundable application fee: $35 (this fee is waived for applications received before December 1);
3. Completed Essays;
4. High School Transcript;
5. Academic/Educational Recommendation;
6. ACT or SAT College Entrance Exam Results (Calvin College does not require the writing sections of the SAT or ACT.)
7. Transcript(s) from any college(s) previously attended.

All documents and supporting data required for admission become the property of Calvin College and will not be returned to the applicant.

Completed applications are considered on a 'rolling' basis. Application deadlines are indicated below. Applicants will be notified of an admission decision soon after their files are complete.

Application deadline for:	Fall semester	Interim	Spring semester
First time and transfer students;	August 15	not avail.	January 15
International students	April 1	not avail.	not avail.
Readmitted students	admitted on a space-available basis until classes begin		
Guest students	admitted on a space-available basis until classes begin		

Admission Standards: Requirements for Regular Admission

Applicants with a high school average of "B–/C+" (2.5) or higher in college preparatory courses are normally given regular admission if their college entrance test scores meet the guidelines in the table that follows:

Minimum College Entrance Exams Scores Needed for Regular Admission

ACT	ACT	ACT	ACT		SAT	SAT
English	Math	Reading	Comp.	*or*	Critical Reading	Math
19	20	16	20		470	470

Applicants with lower grades and scores are reviewed individually by the Committee on Admissions. Some of these applicants may be admitted under special conditions. Others may be required to take placement tests and non-credit courses designed to enhance their success. (See 'Admission under Special Conditions'.)

Applicants must be high school graduates or have graduated from an equivalent program. Applicants who are at least nineteen years of age but have not completed high school or

its equivalent may be granted admission provided they have successfully completed the General Educational Development Test (GED) and submit satisfactory scores on one of the entrance examinations.

High School Course Work Required for Admission

The following components must be included in the applicant's high school transcript:

English: 3 years of college prep English
Mathematics: 3 years of college prep math, beginning with Algebra I and including Geometry (or a sequence of equivalent courses)
Social Sciences, Languages, Natural Sciences:
2 years of college prep courses in **two** of these areas
3 years of college prep courses in **one** of these areas

Model High School Program

High school students should recognize that the quality of their high school education will determine the ease with which they will do college work and their ability to follow certain courses of study. The model high school program given below indicates the recommended course work to be taken in high school.

English:	4 years	
Mathematics:	3 years	**Beginning with Algebra I, three years of college prep math are required**; four years are recommended for students entering math-related majors.
Foreign language:	2 years	Preferably four; ideally the last year in grade 12.
Science:	2 years	Biology, chemistry, or physics; one with a laboratory **Students considering programs in the sciences or health fields, including nursing, should take biology, chemistry and physics**.
History/Soc. Sciences:	3 years	
Electives:	3 years	Keyboarding and other college prep courses

Admission under Special Conditions

Applicants with high school or college records or with ACT/SAT scores that do not meet regular admission standards may be admitted if there is other evidence of academic promise. Such students are required to participate in the Access Program and must take assigned placement tests. They will receive special advising and may register for no more than 15 semester hours including any Access Program courses (see Academic Services pages). They also are encouraged to limit their involvement in extra-curricular activities. Conditions attached to admission must be completed during the student's first year.

Admission of Transfer Students

Students transferring from other colleges or universities must follow the same application procedures as first-year students. Transcripts from all previous colleges attended must be received prior to consideration for admission. ACT or SAT results are also required for transfer applicants with less than two-years of previous college experience. The minimum cumulative grade point average for students transferring from a four-year institution is 2.0 and from a two-year college, 2.5. Applicants with averages below the standard or with lower scores are reviewed individually by the Committee on Admissions. Some of these applicants may be admitted under special conditions. Others may be required to take placement tests and non-credit courses designed to enhance their success. (See 'Admission Under Special Conditions' above.)

Evaluation of Transfer Credit

Transfer credit will normally be awarded for work done in accredited institutions. The courses must be academic and similar in nature to courses offered at Calvin College. A minimum grade of "C" is required in each course to receive credit. No more than seventy semester hours of advanced credit will be allowed for work completed at an accredited community college. Furthermore, no matter how much work done at other institutions may be accepted, all students must complete their last year in residence and at least three upper-level courses in their major to graduate from Calvin.

A maximum of nine semester hours will be allowed for courses taken by correspondence from accredited colleges and universities. Courses taken in residence at other accredited institutions are normally accepted, provided they have been approved by the registrar in advance. In no case, however, will work in a community college be accepted after a student has accumulated more than 70 semester hours of credit.

To meet requirements for a Calvin degree, transfer students must complete one Interim course for each year in residence. Students may not take more than two Interim courses in a single department. Courses which meet off campus normally require special application in advance of registration.

Veterans will receive credit, as recommended by the American Council on Education, for liberal arts courses taken through the USAFI and for a maximum of nine semester hours taken by correspondence courses from accredited universities in the program.

Admission of International Students

Calvin College welcomes international students who can demonstrate their ability to meet the academic standards of the college, who are prepared to do college-level work in English, and who can show evidence of their ability to pay most of the cost of their education. Students should be certain that Calvin College offers the programs they need. The college is authorized under federal law to enroll non-immigrant international students.

To apply for admission, international students are required to submit the following by April 1:

1. International Student Application Form (www.calvin.edu/international);
2. Non-refundable application fee: $35 (waived for applications received before December 1);
3. Completed Essays;
4. Transcripts from High School and/or College(s) attended and the results of any tests required in the student's country;
5. Academic/Educational Recommendation;
6. Applicable tests - see below
7. Demonstration of English language proficiency;
8. Completed Declaration of Finances and supporting documents;
9. Profile of Educational Background Form.

Calvin College requires the SAT or ACT for international applicants who are in any one of the following situations (Calvin College does not require the writing sections of the SAT or ACT):

- Applicants who will have graduated from a high school in the United States.
- Applicants who will have graduated from an international school that follows a US high school curriculum.
- Applicants who will have graduated from an international school where English is the primary language of instruction.
- Applicants who will be transferring from another US college or university where s/he has earned less than one-year of credit.
- Applicants who are Canadian citizens.

International applicants who are not required to submit an SAT or ACT (according to the listing above) must submit the TOEFL, IELTS (International English Language Testing System), ELS or other documentation of English language proficiency. Additional information about mathematics proficiency may also be requested.

Several scholarships are available to international students; some scholarships are awarded based on the results of the ACT or SAT. International students who wish to be considered for Calvin's academic scholarships are encouraged to take the ACT or SAT even though these tests may not be required for admission purposes.

The minimum TOEFL score for regular admission is 550 (213 on the computerized version or 80 on the Internet-based test). The TOEFL code number for Calvin is 1095. The IELTS results are also accepted by the College with a minimum score of 6.5. In certain situations, a student with a lower score on either test may be admitted with a provision for further intensive language training.

Upon enrollment, international students for whom English is a second language must take English courses each semester until they have successfully completed English 101, a course required of all students for graduation. However, the college may require a locally-administered placement test and a subsequent review course in English as a Second Language prior to English 101 if the need is indicated by placement test results. International students for whom English is a second language can satisfy the graduation requirement of additional language study with their native language.

Enrollment Deposit for International Students

When international applicants are accepted for admission, they will be sent a formal letter of admission by the Director of Admissions. An enrollment deposit of $4000 toward first year costs is required of admitted international students. Upon receipt of the enrollment deposit, the Certificate of Eligibility (I-20) will be forwarded to the student, who should then make application for a student visa immediately with the nearest United States Consul.

Enrollment Deposit for U.S. and Canadian Students

An enrollment deposit of $300 is required of all enrolling first-year, transfer, and readmitted students from North America. This deposit serves as a confirmation of the student's plans to enroll and is applied toward the student's orientation fee. The remainder is applied to the student's account. First-year students from the U.S. must pay this deposit by May 1. Canadian and transfer students must pay this deposit by June 1. The enrollment deposit is not refundable after the due date. Former students who have been readmitted to the college must pay their enrollment deposit by August 1.

Immigration Procedures for International and Canadian Students

International and Canadian students are required to have a Certificate of Eligibility (I-20) to attend college or university in the United States. An application for the I-20 will be sent to international and Canadian students at the time of their admission to Calvin. Upon receipt of the completed I-20 application, immigration documents will be processed. Please note that completed I-20 applications must be returned to Calvin by July 31.

Entrance Examination Information

Prospective first-year students are required to provide ACT (Code #1968) or SAT (Code #1095) results. Students are advised to take their college entrance examination during the spring semester of their junior year or in the fall of their senior year. Calvin does not require the writing section of the SAT or ACT.

The ACT is administered several times throughout the year. Registration forms are generally available from high school counselors or online at www.act.org. This test is also required by the State of Michigan for its competitive scholarship program. Registration information for the SAT is also available from high schools and at www.sat.org.

Profile of Calvin First-Year Students

The middle 50% of the first-year students who enrolled at Calvin College in the fall of 2006 have the following academic profile:

High school grade point average: 3.3 - 3.9 (on a 4-point scale)

ACT Composite Score: 23 - 29

SAT critical reading plus math: 1110 - 1330

The six-year graduation rate for entering first-year students is 74%; most finish a degree in four years carrying a normal course load.

The first- to second-year retention rate is 88%.

Academic Forgiveness Policy

All students must meet the 2.0 grade point average standard for graduation. However, students who have completed course work at Calvin prior to their readmission can invoke an academic forgiveness option. To do so, students must specifically request this option at the time of readmission, and at least five-years must have elapsed since their last Calvin attendance date. Under the academic forgiveness policy, all student grades, in their prior academic period at Calvin, are excluded from the GPA calculation required for graduation, and all course and grade information, even when not included in the GPA calculation, remain on a student's official transcript. The semesters for which academic forgiveness has been granted will be so noted. Only those courses in which a student received a C- or better can be used as semester hour credit toward graduation requirements. Other prior coursework must be repeated or replaced in an approved manner.

Policies for Course Credits and Exemption Examinations

A maximum of 32 semester hours may be obtained through the transfer of non-classroom-based credit.

Some students are able to earn advanced college credit in certain subjects. This may be secured in any of five ways:

1. Advanced Placement — At the time of admission, first-year students may submit scores from an Advanced Placement (AP) Examination conducted by the College Board. While the minimum acceptable score is 3 or 4, depending on the test, the amount of credit awarded for higher scores varies. Detailed information is available from the registrar's office. Students may not receive both AP credit and a high school exemption for the same core requirement.
2. International Baccalaureate (IB) — IB credit will be given to students who receive a grade of 5 or higher on Higher-level classes. No credit will be given to Subsidiary-level classes.
3. Departmental Examinations- Some Departments offer departmental examinations for some courses. If a department deems it appropriate, regularly enrolled students may meet a core requirement and receive regular academic credit by examination. Only one exam per department may be taken unless prior approval is given by the registrar. Such tests must be taken in lieu of registration for the course and may not be used as repeated courses. Students wishing to take departmental examinations may obtain forms from the departments from which they wish to take the exams. The student will be charged a $20 fee for an exemption exam and $50 for a credit exam. The student's performance on the examinations will be recorded on the student's record.
4. Non-Traditional Methods — Calvin students may obtain transfer credit from on-line and correspondence courses that have been previously approved by the Calvin registrar. Additional credits may be obtained through credit-by-exam programs such as the College Level Examination Program (CLEP). Credit is granted to students who receive a satisfactory score on any of the CLEP subject examinations of the College Board. For more detailed information, please contact the registrar's office for a listing of credit given for CLEP subject exams.

Furthermore, students who have completed appropriate courses in high school may be exempted from certain college course requirements. This is possible in foreign language, and the natural sciences. Consult the registrar's office for a description of the ways high school courses satisfy college requirements.

Nondiscriminatory Policy

Calvin College does not discriminate with regard to age, race, color, national origin, sex, or disability in any of its education programs or opportunities, employment, or other activities. Questions pertaining to Title IX, which prohibits discrimination based on sex, and Section 504, which prohibits discrimination based on disability, may be directed to the Director of Admissions, Calvin College, 3201 Burton Street SE, Grand Rapids, Michigan, 49546, (616) 526-6106.

Visitors and Auditors

Members of the community who are not enrolled as students in any college are invited to register as visitors in most lecture classes. Formal admission to the college is not required; however each visitor must obtain permission from the professor and register with the Office of the Registrar, before attending class. A student may not visit a course or course component that is by its nature practical or applied, such as applied music or a lab. The fee for each course visited is $55 for the semester, which includes campus parking privileges.

Auditors must be formally admitted to the college and must pay the tuition for auditing, which is described below:

Students with 0 to 5 non-audit credits who choose to audit a class will be charged at $240 per credit hour for the audited course. Students with 6 to 11 non-audit credits who choose to audit a class will be charged at $375 per credit hour for the audited course. Students with more than 17+ non-audit credits who choose to audit a class will be charged at $240 per credit hour for the audited course. Students who are registered for 12-17 non-audit credits do not pay extra for any audited course.

The audited course is listed on the student's academic transcript, but no credit is recorded. Auditors are expected to attend all classes and participate in the assigned activities of the class. They may take all tests and submit assigned papers for evaluation, but they are not required to do so. Auditors may change their registration from audit to credit only during the first nine weeks of the semester; students enrolled in a course for credit may change to audit only during the first nine weeks.

A student may not visit or audit a course or course component that is by its nature practical or applied, such as applied music or a lab.

Enrollment in Seminary Classes

Full-time college students may, as a part of a program worked out with their departmental advisors, carry up to two courses in Calvin Theological Seminary in any one semester. Approval by the registrar of the seminary and the registrar of the college is required, and under no circumstances may credit for a single course be counted toward degree programs in both college and seminary. Full-time seminary students may enroll for not more than two courses in the college provided the registrar of the seminary and the college approve.

Dual Enrollment Policy

Dually enrolled students are individuals who are still attending high school but are concurrently enrolled in college courses. The dual enrollment program is administered by participating high schools, and interested students should first inquire at their high school. Students are eligible for dual enrollment until the time of their high school graduation.

Calvin welcomes qualified high school students who wish to be dually enrolled. Students must obtain a letter of permission or recommendation from their high school counselor

or principal which indicates the course(s) they wish to enroll in at Calvin. Students must also complete Calvin's undergraduate application for admission. An official high school transcript is required. No essays, application fees or college entrance exams are required for dual enrollment. Students who wish to enroll as first year students for the following academic year must subsequently submit essays and results of the ACT or SAT. Students will be notified of their dual enrollment admission and course registration by mail.

The cost of dual enrollment is the responsibility of the family, in partnership with their high school. Please refer to the financial services section for more detailed information about costs.

Student Load and Classification

The typical undergraduate student load is 12 to 17 semester hours per semester. The normal course load permits students to register for courses in applied music, basic physical education, and drama in addition to a typical academic load. Non-credit review courses are counted as part of a normal load, and students on probation or condition may be required to limit their load to 12 semester hours. In exceptional cases, a student may apply for permission from the registrar to carry more than 17 semester hours. Such an application requires the recommendation of the student's academic advisor or department chair and the approval of the registrar. To be eligible for consideration, the student must have a cumulative grade point average of 3.0, must have received no grades of incomplete during the previous two semesters, and is expected to limit outside employment.

Normal progress toward the degree for full-time students requires that a minimum of 12 semester hours be earned each semester. Normal progress also requires the completion of 3 interim courses. A more typical load is 31 semester hours per year, which enables most students to complete degree requirements in 4 academic years.

Undergraduate students are classified as first-year students until they have earned 27 semester hours of credit. Students with a minimum of 27 semester hours of credit completed will be classified as sophomores; those with 58, as juniors; and those with 89, as seniors. Classification for the purpose of college records will be revised at the beginning of each academic semester.

Grading Systems

Grades given during the regular semester are designated by letters A, excellent; B, good; C, average; D, just passing; F, failure; I, incomplete; W, authorized withdrawal; and N, unauthorized withdrawal. Grades given for honors credit are preceded by the letter H (i.e., HA-).

For purposes of averaging grades, the following numerical values or grade points are assigned to each of the above grades: A, four points per course; B, three; C, two; D, one. A plus-grade is computed at three-tenths of a point above these figures and a minus-grade at three-tenths below. Grades for courses completed as transfer credit or in cooperative programs at other colleges and universities are recorded on students' records but are not included in the compilation of their average at Calvin.

Ordinary grades for the interim are H, honors; S, satisfactory; and U, unsatisfactory. These do not carry grade point values and are not averaged in the student's total record, but the student normally receives 3 semester hours toward the 124 required for graduation for each interim course satisfactorily completed. Interim courses carrying core credit are normally graded according to the traditional letter system and will be included in the student's average.

Graduate workshops are graded with S and U grades only.

Auditors are given grades of AU. However, if they fail to attend classes, the instructor will report a grade of AUN.

Students may alter their schedules during the first week of classes without grades of W being recorded on their records. After that time, grades of W, authorized withdrawal,

will be recorded if they leave courses with the written approval of their instructors by the end of the ninth week of the semester. Students who discontinue classes without permission or notification are not entitled to a grade of W but will be given an N, unauthorized withdrawal. This grade is computed as an F in determining a student's grade point average. However, students who withdraw from school at any time with the approval of the registrar and of one of the student deans may be given grades of W in all courses.

Students may repeat any courses by properly registering for them, but must inform the instructor when they are repeating a course. Only the latest grade, whether higher or lower, shall be included in the compilation of a student's cumulative grade point average. The original grade is not expunged from the record, but is noted as a repeated course. A student will not receive additional course credit for repeated courses.

If students fail to complete all the required work or to sit for the final examination, instructors may, if they consider a student's reason valid, give a grade of I, incomplete, rather than a grade of F. The grade of I shall be computed as a neutral grade in determining a student's grade point average. Students given an I in the fall semester or in the interim must make up the deficiency by March 15 of the following spring semester; if given an I during the spring semester or summer session, they must make up the deficiency by October 15 of the following fall semester. If they fail to do so, grades of IN will be entered on their records. A grade of F will be altered only if a student reregisters and retakes the course in which it was given. Grades of I are never expunged from the records. When a final grade is received or the deadline is passed a new grade preceded by an "I" will be rewarded.

The Dean's List

Full-time students, including graduate students, with a semester grade point average of 3.5 or higher and a cumulative grade of 3.3 or higher will be placed on the Dean's List. Part-time students who meet the grade point requirements above and have earned 3 semester hours within the last year and at least 12 semester hours within the last 2 years will be placed on the Dean's List. The Dean's List is compiled at the end of each semester when grade reports are printed. Interim grades and subsequent grade changes normally do not alter the list.

Academic Probation and Dismissal

Each student admitted to Calvin College is assumed to have the preparation, the desire, and the ability to make satisfactory progress toward a degree. In practice, however, some students do not make the progress expected of them. Such students are notified, offered special assistance and academic counseling, and given an opportunity to improve their records. Failing in that, however, they will be dismissed.

The records of all undergraduate students are reviewed after each semester, and the academic status of full-time students is determined according to the following schedule:

Cumulative total of semester hours attempted	*Minimum cumulative grade point average needed for continuation*	*Minimum cumulative grade point average needed for good standing*	*Minimum percent of attempted hours, which must be credited for good standing*
16 or fewer	1.0	1.5	66%
17 – 31	1.30	1.65	66%
32 – 49	1.45	1.75	68%
50 – 67	1.60	1.85	70%
68 – 85	1.75	1.95	72%
86 – 104	1.90	2.00	74%
105 – 123	2.00	2.00	77%
124 or more	2.00	2.00	80%

The number of semester hours attempted is the number of hours for which a student is registered at the beginning of the second week of classes. Credited hours are those for which the student has earned credit that applies toward a degree.

While Academic Services courses are counted toward the 12 semester hours needed for full-time status, they are not counted in the number of semester hours attempted or credited, or in the cumulative grade point average.

Courses that are repeated are counted in the number of courses attempted, but not in the number of semester hours credited. For the purposes of calculating GPA, incompletes are calculated as a neutral grade.

Students receiving benefits from the Department of Veterans Affairs are placed on academic probation if their GPA falls below 2.00 and must, within the next two semesters, raise it to 2.00 in order to continue to be certified for such benefits. Such students must, prior to enrolling for the final 12 semester hours, have earned a cumulative grade point average of 2.00. If any student receiving veteran's benefits fails to come off probation within the prescribed probation period, the school will inform the Veterans Administration. The student will be informed, in writing, that the Veterans Administration has been notified.

Any student whose average falls below the minimum required for continuation is subject to dismissal. Those permitted to continue, but not meeting the requirements for good standing are placed on probation. Students placed on probation must, in the semester following, earn a current grade point average equal to or better than the cumulative average required for good standing in that semester, e.g., a student who has attempted 14 semester hours during the first semester and is placed on probation in the second semester must average 1.65 or above. Students who fail to meet the standards for good standing during the semesters they are on probation are subject to dismissal. In addition, students placed on academic probation will be required to meet a number of conditions as outlined by the Academic Review Committee and Student Academic Services. Conditions may include, but are not limited to, a certain number of semester hours, meetings with a probation counselor, a limit on the number of hours of outside employment, etc. Failure to meet the specified conditions will constitute grounds for immediate dismissal. First-year students placed on probation may register for no more than 12 semester hours and may be required to successfully complete an Academic Support Program review course or to complete, in good faith, a program of academic counseling with an advisor. All students on probation are expected to limit extracurricular activities. First-year or transfer students admitted with conditions must meet these conditions during their first year of enrollment. Failure to meet the terms of specified conditions will constitute grounds for immediate dismissal.

Students not permitted to continue may appeal their academic dismissal to the Academic Review Committee, whose decision is final. One-year must elapse before students dismissed for poor academic performance are eligible to petition for readmission. A request for readmission will be reviewed by the Academic Review Committee and the Admissions Committee; readmission following academic dismissal will be based upon evidence that the difficulties previously encountered can be overcome and that eventual completion of degree requirements can reasonably be expected.

The Family Education Rights and Privacy Act (FERPA)

The Family Educational Rights and Privacy Act of 1974 helps protect the privacy of student records.

The act provides for the right of the student to inspect and review education records, the right to seek to amend those records, and to limit disclosure of information from the records.

Students who are currently enrolled at Calvin College or formerly enrolled students, regardless of their age or status in regard to parental dependency are protected under FERPA. Parents of students termed dependent for income tax purposes may have access to the students educational records.

With certain exceptions, a student has rights of access to those records which are directly related to him/her and which are maintained by Calvin College. Educational Records include any records in the possession of an employee, which are shared with or accessible to another individual. The records may be handwritten or in the form of print, magnetic tape, film, electronic image, computer storage, or some other medium. This would include transcripts or other records obtained from a school in which a student was previously enrolled.

Official Calvin College transcripts are released only when requested in writing by the students. The fee is $5 per copy. Transcripts will not be released for students who have failed to meet their financial obligations to the college.

Calvin may disclose information on a student without violating FERPA through what is known as directory information. FERPA regulations define 'directory information' as information contained in an education record of a student that would not usually be considered harmful or an invasion of privacy. This generally includes a students name, address, telephone number, electronic mail address, photograph, date and place of birth, major field of study, participation in officially recognized sports and activities, weight and height of athletes, dates of attendance, grade level, enrollment status (e.g., undergraduate or graduate, full- or part-time), degrees, honors and awards received, the most recent educational agency or institution attended, and other similar information. A student may restrict the release of his/her directory information by making a request in writing to the registrar.

In certain other situations, a students consent is not required to disclose educational information.

Fifteen Exceptions are:

1) to school officials who have 'legitimate educational interests';
2) to schools in which a student seeks to enroll;
3) to Federal, State, and local authorities involving an audit or evaluation of compliance with education programs;
4) in connection with financial aid;
5) to State and local authorities pursuant to a State law adopted before November 1974 requiring the disclosure;
6) to organizations conducting studies for or on behalf of educational institutions;
7) to accrediting organizations;
8) to parents of a dependent student;
9) to parents of students under 21 for violations of any law or institutional rule related to the possession of alcohol or controlled substance;
10) to comply with judicial order of subpoena;
11) health or safety emergency;
12) directory information;
13) to the student; and
14) results of disciplinary hearing to an alleged victim of a crime of violence;
15) to the Attorney General of the United States in response to an ex parte order in connection with the investigation or prosecution of terrorism crimes.

Requests to disclose educational information will always be handled with caution and approached on a case-by-case basis.

Students who believe that their education records contain information that is inaccurate or misleading, or is otherwise in violation of their privacy, should discuss their problems informally with the person in charge of the records involved. If the problems cannot be resolved, the student may request a formal hearing by the registrar. The request must be made in writing to the registrar who, within seven days after receiving the request, will inform the student of the date, place, and time of the hearing. Students may present evidence relevant to the issues raised. The hearing officer who will adjudicate such challenges will be the registrar, or a person designated by the registrar who does not have a direct interest in the outcome of the hearing. The educational records will be corrected or amended

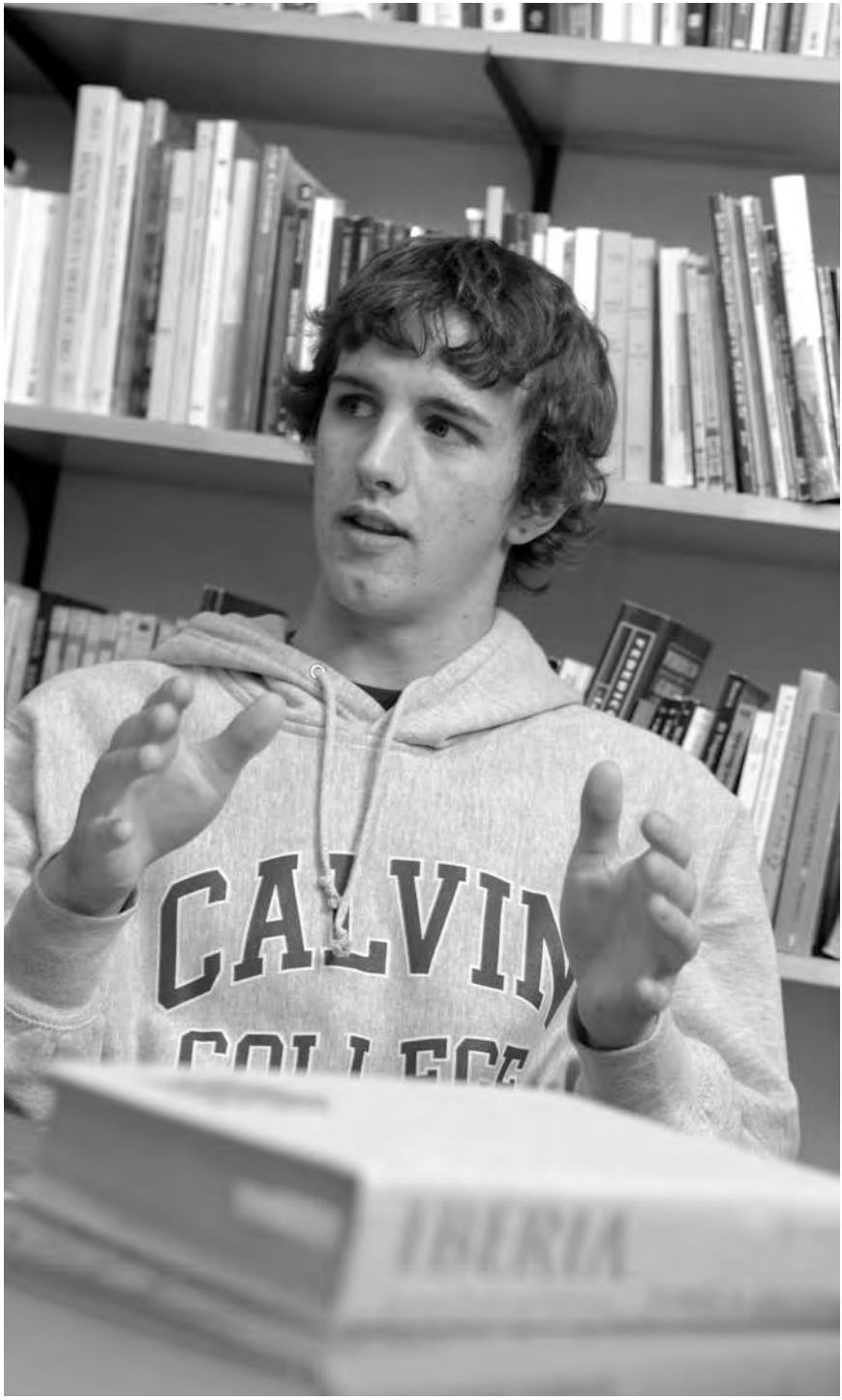
in accordance with the decisions of the hearing officer, if the decisions are in favor of the student. If the decisions are unsatisfactory to the student, the student may place with the educational records statements commenting on the information in the records or statements setting forth any reasons for disagreeing with the decisions of the hearing officer. The statements will be placed in the educational records, maintained as part of the student's records, and released whenever the records in question are disclosed.

Application for Degree and Certificates

In addition to the formal requirements for degrees described in the section on 'Core Curriculum', students must satisfy certain technical requirements. Normally, they must complete their last year in residence at Calvin. They must also complete a Declaration of Major Form and have it signed by their departmental advisor and must meet all of the conditions specified in that sheet. (These sheets normally are completed during the sophomore or junior year.) Finally, they must file a formal application for a degree at the Office of the Registrar not later than the beginning of the semester in which they expect to graduate. If they are completing teacher education programs, they must also file an application for Michigan certification at the same time they apply for a degree or not later than a semester before they complete the certification requirements.

Students may not participate in the May graduation ceremony unless they are within one semester of meeting their graduation requirements.

Students desiring to graduate with an honors designation must apply for admission to a departmental honors program and meet those requirements and the general honors program requirements. Consult the 'Special Academic Programs' pages for more information.


CALVIN
INERTIA

Core Curriculum

The Core Curriculum: An Engagement with God's World

Life is more than a job. Most students graduating from Calvin College will pursue a career in the professions. They will become teachers, accountants, engineers, ministers, architects, research biologists, doctors, speech therapists, lawyers, social workers, nurses, and the like. But whatever their particular employment, they will also become citizens, neighbors, parents, parishioners, consumers, and, more generally, participants in North American culture.

The core curriculum at Calvin College is a preparation for life. While the major or the professional program prepares students for the successful pursuit of a job, the core equips students for a life of informed and effective Christian service in contemporary society at large, for an engagement with God's world.

As such, the core curriculum at Calvin College participates in a long tradition of liberal arts education, a tradition that stretches back the ancient Greco-Roman world. Originally designed to prepare those free from the necessity of work for a life of public service, the liberal arts course of study began with the "trivium" - logic, rhetoric, and grammar. Logic was to enhance a student's ability to construct and evaluate knowledge claims; rhetoric, to develop the powers of persuasive communication in the public square; grammar, not just to learn the mechanics of a language, but to shape character through exposure to the ideals and examples embedded in the canonical texts of a culture. In short, the aim of the trivium was to render the liberal arts student intelligent, effective, and virtuous.

The goal of the core curriculum at Calvin College is likewise divided into three parts: Knowledge, skills, and virtues. The courses in the core are designed to impart a basic knowledge of God, the world, and ourselves; to develop the basic skills in oral, written, and visual communication, cultural discernment, and physical activity; and to cultivate such dispositions as patience, diligence, honesty, charity, and hope that make for a life well-lived'— of benefit to others and pleasing to God.

The spirit of the Christian liberal arts curriculum permeates all of the degree programs of the college. Traditionally, most students complete the Bachelor of Arts or the Bachelor of Science degree programs, either of which may include a teacher certification component. Other degrees offered by the college include the Bachelor of Fine Arts in Art, the Bachelor of Science in Recreation, the Bachelor of Science in Nursing, the Bachelor of Science in Accountancy, Bachelor of Science in Public Accountancy, the Bachelor of Science in Engineering, the Bachelor of Social Work, the Bachelor of Arts in Speech Pathology and Audiology, Bachelor of Computer Science, and the Master of Education. Cooperative Bachelor of Science degrees are offered with a number of other institutions in medical technology, occupational therapy, and special education.

Because of the complexity of the Calvin curriculum and the many alternative ways of meeting the formal requirements, students must confer with their advisors regularly in planning their academic programs. Students may graduate under the Calvin catalog in effect at the time of their initial registration or any succeeding catalog as long as the catalog chosen is not more than seven years old when graduation requirements are completed. Students who have not attended the College for more than seven years must re-enter the College under the catalog in effect at the time of re-entry.

The Core Requirements

In keeping with the tradition of liberal arts education, the core curriculum of Calvin College is designed to equip students with the knowledge and skills required for an informed and effective life of Christian service in contemporary society. Strong high school preparation may reduce the number of courses required in the core, and that number may be further reduced by special examinations in any subject.

Required core courses are divided into 4 components: The core gateway, core skills, core studies, and the core capstone. The gateway into the core is made up of two linked courses required of all first-year students: Prelude and Developing a Christian Mind (DCM). Prelude is progressive orientation to Calvin as an academic community in the Reformed tradition. It is taught during the fall. DCM is a first-year interim course designed to introduce students to a Reformed Christian worldview and its relevance for contemporary issues. First-year students taking a 122 language course during the interim can take a section of DCM in the spring semester. Core skills courses, such as written rhetoric or research and information technology, are best taken early in a student's career at Calvin, as they advance those skills essential to academic success at the collegiate level. The core studies are designed to introduce students to the primary domains and dimensions of life. Typically, a number of them will overlap with courses required in a student's major or professional program. The core capstone is comprised of integrative studies courses, typically taken in the junior or senior year, which draw together the broad themes of the core curriculum in connection with a particular theme or discipline. The cross-cultural engagement requirement may be fulfilled in a number of ways: Through designated off-campus interim courses; semester abroad programs; or approved semester courses at Calvin with a strong cross-cultural component.

GATEWAY & PRELUDE

❑ Developing a Christian Mind	one course from:	IDIS 150

Transfer credit not accepted for Developing a Christian Mind core

❑ First-Year Prelude	one course from:	IDIS 149

CORE COMPETENCIES

❑ Written Rhetoric	one of the following:	ENGL 101 or ENGL 100/102 (two-course, full-year sequence)
❑ Information Technology	one course from:	IDIS 110; CS108; ENGR 101

Transfer credit not accepted for IDIS 110 core; exemption exam offered.

❑ Rhetoric in Culture	one course from:	ART 153; CAS 101,140, 141, 214; IDIS 102; SCES 214
❑ Health and Fitness		
Personal Fitness	one course from:	PER 101-129, PE 222
Leisure and Lifetime	one course from:	PER 130-159, PE 221
Skill Enhancement	one course from:	PER 160-189

A student participating in a varsity or junior varsity sport for a full season is exempt from the one-hour skill enhancement category.

❑ Foreign Language	one of the following:	CHIN 202; DUTC 202; FREN 113, 123, 202; GERM 123, 202; GREE 202, 206, 207 JAPN 202; LATN 202, 205; LCTL 202; SPAN 202, 203

High School Exemption from Foreign Language requirement is possible.

Students who have taken at least 4 years of high school level foreign language (C or better in each high school term) are exempt from Calvin's requirement. Student who have taken less than 4 years will be asked to take a language placement test.

Beginning the summer of 2005 at least 2 years of high school foreign language (C or better each term)or one year of college foreign language will be required of students who are in academic programs that have reduced core curriculum requirements (Accounting, Engineering, Fine Art, Nursing and Recreation).

❑ History of the West and the World	one course from:	HIST 151 or HIST 152
❑ Philosophical Foundations	one course from:	PHIL 153
❑ Biblical Foundations I OR Theological Foundations I	one course from:	REL 121 or REL 131
❑ Biblical Foundations II OR *(Must complete if taken REL 131)*	one course from:	REL 211-214; 221-224
❑ Theological Foundations II *(Must complete if taken REL 121)*	one course from:	REL 230-237; 243, 244, 251

Students must take one Religion Core at Calvin.

❑ Persons in Community	one course from:	EDUC 202; PHIL 211; POLS 110; PSYC 151; SOC/SOWK 250
❑ Societal Structures in N. America	one course from:	ECON 151, 241, 221; GEOG 241; IDIS 205; POLS 101, 102, 212; SOC 151, 210; STHO 211
❑ Literature	one course from:	CLAS 211; ENGL 205, 210, 211, 215-219, 283,285, 290, 295; FREN 217, 311-314; GERM 217, 218; LATN 206; SPAN 309
❑ Global and Historical Studies	one course from:	ARTH 232, 233, 241, 243, 245; BIOL 364; CAS 330; ECON 237, 337; ENGL 302, 318; GEOG 110, 210/ ENST 210, 240, 242; HIST 231-233, 235, 238, 241, 242, 245, 246, 261, 262, 263, 271;IDIS 242; IDS 201; PE 310;PHIL 225, 226; POLS 207, 271, 276, 277, 279; REL 255, 352, 353, 354, 355; SOC 153; SPAN 308, 311; SPHO 205: STBR 372; STHU 312; STCH 203, 204
❑ The Arts	one course from:	ARTE 210; ARTH 101, 102, 234, 235, 237, 238, 239, 240; ARCT 201, 202; CAS 145, 203, 217, 254, 281, 282, 320, 321; CLAS 221, 231; MUSC 103, 105, 106, 107, 204, 236, 238; PE 202, 330

❑ Mathematics	one course from:	MATH 100, 143, 160, 161, 221; PSYC 255; SOC/ SOWK 255
❑ Physical World	one course from:	ASTR 110-112, 211, 212; CHEM 101, 103, 104, 115; GEOG/GEOL 120, 251; GEOG/IDIS 191; GEOL 151, 152; IDIS 160; PHYS 133, 134, 212, 221, 223, 235; SCES 113
Living World	one course from:	BIOL 111, 112, 115, 141

High School Exemption from Physical World or Living World requirement is possible. (Students must take one Science Core at the college level).

Students who have taken at least 3 years of high school science (excluding Physical or Environmental Science) with a grade of C or better are eligible for an exemption from either the Physical World or Living World core requirement. The Office of the Registrar will determine which exemption is appropriate.

The Physical World and Living World core categories can also be met by any of the following 2-course sequences:

Physics 133-134
Physics 133-235
Chemistry 103-104
Geology 151-152

❑ Cross-Cultural Engagement	See list on core website or at the Office of the Registrar	
❑ Integrative Studies	one course from:	ARTS 395; ARTH 395; ARCT 397; BIOL 394-396; BUS 360; CAS 352, 399; CS 384; ECON 395; EDUC 398; ENGL 395; ENGR 339, 340; ENST 395; GEOG 380, 386; GERM 308; HIST 395; IDIS 310, 394; IDS 395; MUSC 395; NURS 380; PE 332; PHIL 201-205, 207-209, 212, 215; POLS 399; PSYC 399; RECR 310; REL 295; SOC 395; SOWK 381; SPAN 395;

Transfer credit not accepted for Integrative Studies core.

Certain professional-degree programs have a modified core curriculum approved by the faculty. These include accountancy (B.S.A. and B.S.P.A), speech pathology and audiology, engineering (B.S.E.), fine arts (B.F.A.), nursing (B.S.N.), recreation (B.S.R.), social work (B.S.W.) and the education programs. Model programs are described within each department.

Bachelor of Arts, Bachelor of Science Degrees

The formal requirements for a Calvin College bachelor's degree include the following: Successful completion of 124 semester hours, completion of three interim courses of three credit hours or more, completion of the designated program of study and the designated core, and a minimum grade point average of 2.0 (some programs require a 2.5 GPA) both overall and in the program of concentration. Not more than 5 semester hours of basic physical education or 8 semester hours in applied music and drama may be applied to graduation requirements except when such courses are a designated part of a required major or minor program. No more than 12 semester hours of internship credit may be applied to graduation requirements.

Students who have completed at least 58 semester hours in biology, chemistry, computer science, the earth sciences, engineering, mathematics, and physics may elect to receive a Bachelor of Science degree.

Students desiring to earn a second baccalaureate degree from Calvin College must meet all of the requirements of the second degree and complete a minimum of 145 semester hours.

Interim Course

Calvin is on a system under which students take only one three or four semester hour course during the three-week January term, commonly called *Interim*. Most Interim classes meet mornings or afternoons, but those involving laboratories and in-service experiences may require full-day participation. Because of their informal and intensive nature, most Interim courses have enrollment limits. To meet requirements for a Calvin degree, students must complete at least three Interim courses (a course, to meet the interim requirement must be at least three semester hours). Transfer students must complete one Interim course for each year in attendance at Calvin and students may not take more than two Interim courses in a single department. Interim courses are graded honors (H), satisfactory (S), or unsatisfactory (U), except those courses that satisfy core requirements and other specially designated courses, which are graded in the conventional A–F system. A number of one semester hour P.E. courses are also offered during interim. One of these may be taken in addition to the required three semester hour course.

Calvin College is associated with a number of similar colleges with January interim programs, making possible the exchange of students during the interim. Information is available from the Director of Off-Campus Programs.

Members of the community who are not enrolled as students in any college are invited to register as visitors in interim classes if the permission of the instructor is given. Formal admission to the college is not required, but each visitor must register with the Office of the Registrar before attending class. The fee for each course visited is $55, which includes campus parking privileges. This invitation to visitors extends to off-campus interim courses as well. However, professors leading off-campus courses give first priority to student enrollment; if space is available, visitors may register for the course and pay the costs associated with the off-campus interim and an additional administrative fee of $275.

Programs of Concentration (Majors and Minors)

Majors. Every degree-seeking student must fulfill the requirements of a faculty-approved departmental or group major. Although such major concentrations are not normally chosen until the second semester of the sophomore year, most programs do presuppose the completion of specific freshman and sophomore courses. Official admission to a major program requires the formal approval of a department or program advisor and the completion of a declaration form. Once a declaration form is completed, a student may access a copy of their Academic Evaluation Report, which details the student's remaining academic requirements. Whenever students change their major, they must again submit a declaration form for the new major. Teacher education group majors and some departmental majors for teachers may be applied only to teacher certification programs.

To be admitted to a department's major program a student must have earned at least a C (2.0) in each course designated as a prerequisite for admission, unless that department stipulates a C (2.0) average in two or more prerequisite courses. To be admitted to a group concentration a student must have met the grade point average required for admission by the primary department within that group. A student not maintaining a minimum average of C (2.0) in the program of concentration may be permitted to remain in that program for a single semester of probation.

The various programs of concentration are specified in the section of the catalog, which describes departmental programs and course offerings. Group majors designed for teacher certification programs are described in the Education section.

Students may also initiate interdisciplinary (IDIS) programs of concentration other than those formally approved by the faculty. Such majors require a minimum of twelve courses, ten of which must be from two disciplines with no fewer than four from either. At least two of the courses in each discipline must be advanced courses. The remaining two courses needed to meet the twelve-course minimum must be chosen from a third discipline. Students must provide a written rationale for such programs, indicating how the chosen disciplines relate to each other and how the proposed course requirements constitute a coherent field of study. Such proposals require the approval of the registrar and of the chairs of the departments from which the ten courses are selected. IDIS forms are available in the registrar's office and replace the Declaration of Major/Minor form.

Minors. Optional six-course departmental minors and group minors are possible in certain fields. A 2.0 average in the minor program courses is required for graduation in them. Most of the minors are described in the departmental sections of the catalog. Group minors require the written approval of the designated advisor. In addition the college offers the following interdisciplinary minors:

African and African Diaspora Studies
Archaeology
Asian Studies
Environmental Studies
Gender Studies
German Studies
International Development Studies
Journalism
Latin American Studies
Medieval Studies
Missions
Urban Studies
Youth Ministry Leadership

Only those minors described in the Teacher Education Programs section are approved for teacher certification.

Overlap between major and minor (or supplementary) concentrations. A student's major and minor (or supplementary) concentration shall consist of at least fourteen distinct courses of three semester hours or more; moreover, when some courses may apply toward both concentrations, no more than two courses shall be counted as satisfying the requirements of both the major and minor (or supplementary) concentrations. This policy has the following implications:

Courses required in the major	*Maximum overlap permitted*	*Minimum # of distinct courses required*
8	0	14
9	1	14
10	2	14
11 or more	2	15 or more

Overlap between two majors. A double major, i.e., two college recognized major concentrations, shall consist of a minimum of sixteen distinct courses of three semester hours or more. When some courses may apply toward both concentrations, no more than three courses shall be counted as satisfying the requirements of both major concentrations. This policy has the following implications:

Total courses in two majors	*Maximum overlap permitted*	*Minimum # of distinct courses required*
16	0	16
17	1	16
18	2	16
19	3	16
20 or more	3	17 or more

Overlap between minors. There may be no overlaps between minors.

Special Academic Programs

The Academic Writing Program

Minimum Grade in English 101. As the first step in developing competence in writing, a minimum grade of "C" is required of all students receiving credit for English 101.

Departmental Writing Programs. All students will meet Writing Program requirements through a departmental writing program.

Group Majors. Departments that established departmental writings programs will include provisions for their group majors. When students initiate a group major other than those formally approved by the faculty, they must include plans for meeting the Writing Program requirements. Students should obtain approval for such plans from their major advisors and the director of the Writing Program.

Transfer Students. Students who transfer into a major program should work with their major advisor to determine what they must do to satisfy Writing Program requirements.

The Access Program

The Access Program provides an alternative entry into Calvin College for those students who do not meet admission standards, but whose records indicate that they could develop into successful college students. Admission into this program is determined by the Committee on Admissions and is based on high school grades, high school course work, ACT/SAT scores, and recommendations. Enrollment by means of this program is limited each year to a limited number of first-year students.

After a student has been selected to be part of the Access Program, placement tests in English and mathematics are given to determine whether additional course work is neces-

sary in either or both areas. All Access students are required to take ASC 112: Strategies for Academic Success. This course is a 3 semester hour course and is taken concurrently with a reading-lecture course in which the student learns to apply what is taught in ASC 112.

Students in the Access Program are assigned to academic advisors who are familiar with program requirements and methods by which academic progress can be achieved. Typically Access students are very involved in the program during their first semester, and additional follow-up might occur during the second semester. Please see more information under *Office of Student Academic Services* and *Academic Services* or visit our website at: www.calvin.edu/academic/sas.

The Adult and Continuing Education Program

Adults who wish to begin a college program or return to college courses may enroll under the classification of Adult Learner. This classification includes:

1. Adults with no prior college experience and at least a four year interruption in education since high school.
2. Adults transferring into Calvin College who have a combination of course work and work experiences equivalent to four years of activity since high school.
3. Post baccalaureate students returning for a second degree or a set of course work related to their emerging interests and commitments.

Adult learners seeking to complete a degree from Calvin College must fulfill requirements for a major and for liberal arts core courses. At least 25% of the semester hours required for graduation and a minimum of three courses in the designated major must be completed at Calvin College.

Adult Learners who enter or return to Calvin must complete the new Adult Learner Core Curriculum. Adult Learners will be required to complete one course in each of the following core areas: Developing the Christian Mind or Biblical/Theological Studies II, Global/Historical Studies or Foreign Language Competency, Written Rhetoric, Rhetoric in Culture, History of the West & the World, Philosophical Foundations, Biblical/Theological Foundations I, Persons in Community, Societal Structures in North America, Literature, The Arts, Mathematics, Natural World (Physical or Biological Science), a Capstone Course, and an approved Cross-cultural engagement.

NOTE: Certain programs and majors do not allow this modified liberal arts core. For example, Adult Learners in the teacher education program and the nursing program must fulfill the liberal arts requirements specific to those programs. Adult Learners should seek the advice of an academic advisor from their program or major early in their enrollment at Calvin.

Adult Learners may also obtain credit through the development of a prior learning portfolio. The portfolio provides a means for adult learners to petition for college credit based on prior learning through work or volunteer activities. Students must write essays and supply documentation when petitioning for prior learning credit. Normally, one to four semester hours may be granted for each essay and appropriate documentation. A total of 16 semester hours may be obtained through the prior learning portfolio.

Students seeking classification as an Adult Learner should indicate this when they complete their admission forms. Questions about the Adult Learner classification may be directed to the Office of the Registrar.

The Honors Program

Calvin College offers special opportunities for students of outstanding academic ability throughout their undergraduate education. The Honors Program is intended to provide for the discovery, nurturing, and rewarding of academic excellence, and to prepare outstanding students for leadership in service to the immediate community and the world at large.

Incoming students are automatically invited to participate in the Honors Program if they

have an ACT composite score of 29 or higher (= SAT 1290). Current students whose cumulative GPA at Calvin is 3.3 or higher are also eligible to participate. Other students may apply to the director by completing the online "Application to Participate in the Honors Program" (www.calvin.edu/academic/honors/forms/apply.htm).

Students in the Honors Program may register for special honors sections of core courses, contract with a professor to take a regular course for honors credit (for which extra work is required), seek exemptions from core requirements by examination, propose cross-disciplinary programs of concentration, and participate in various extracurricular events for honors students. Honors classes generally assume a high level of motivation and initiative on the part of the student, and aim at greater depth of learning than a regular class.

To graduate with honors, students must complete at least six honors courses (a minimum of eighteen semester hours with at least two of these courses outside their major), maintain a GPA of at least 3.5, and fulfill any other conditions established by the department in which they major. These departmental requirements are spelled out on the website (www.calvin.edu/academic/honors/courses/requirement.htm). Regular interim courses with honors grades are not considered honors courses. Students should plan their honors work with their advisors as early as possible. They must also submit an "Application to Graduate with Honors" by February 15 of their senior year.

For further information, contact the Director of the Honors Program, Prof. Kenneth Bratt (Classics Department), or see the website at www.calvin.edu/academic/honors/.

Professional-degree programs

Information regarding professional-degree programs can be found in the department under which they fall in the Academic Departments/Courses section of the catalog.

Pre-professional Programs

The programs in this section prepare students for admission to professional and graduate schools while also meeting the requirements for a Bachelor of Arts or Bachelor of Science degree from Calvin.

Architecture

Various courses of study may be pursued as preparation for a professional degree in architecture, because of the broad nature of a profession concerned with design, history and culture, and the social and technical sciences. Most Calvin pre-architecture students follow the "Harvard model" for architectural education--they complete a four-year liberal arts degree in a field such as art, art history, business, communications, engineering, geography, history, philosophy, environmental science, sociology, or political science, or an interdisciplinary group major, and then they enroll In a graduate program for the master of architecture as a first professional degree. This liberal arts focus helps prepare students to work in diverse environments and makes them more resilient and adaptable in coping with the rapid pace of global social, technological, and economic change. Four years of high school math is recommended, since at least one course in Calculus and Physics 221 and 222 are required.

Students may also take two years of courses at Calvin and then transfer to a professional program offering a degree in architecture. A model two-year program includes ENGR 103 and ART 153 in the first year and ARCT 201-202 and ARTS 250 in the sophomore year.

Students interested in these programs should consult with the pre-architecture adviser in the Department of Art and Art History.

Law

There is no prescribed program specifically designed for the student planning to enter a law school after graduation. Law school applicants must have a college degree and must take the Law School Admission Test, but law schools do not require that applicants have taken

specific courses or have a particular major concentration. Prospective law school applicants should complete the requirements for a Bachelor of Arts degree as they are prescribed in the Core Curriculum. The pre-law advisor, J. Tatum, of the Department of Sociology, can advise students on suitable electives and can help them plan programs, which provide good preparation for law school. Pre-law students should declare their interest in law at registration time, and they should also plan to attend the pre-law information session held at the beginning of the fall semester. The pre-law advisor also guides students through the processes of identifying law as a calling, LSAT test preparation and application to law school.

Medicine and Dentistry

Students planning to apply to medical or dental schools should consult P. Tigchelaar, Department of Biology, faculty advisor for the pre-medical and pre-dental programs. Students should also note the general college core requirements listed under the Core Curriculum.

A student may select any major concentration and still meet the entrance requirements for all medical and dental schools. However, nationwide the majority of the applicants to medical and dental schools are science majors.

For those students not majoring in biology, the minimum science requirements for entrance into nearly all medical or dental schools are met by the following: Three courses in biology (which should be selected in consultation with the pre-medical advisor); Chemistry 103-104, 261-262 (Chemistry 323 is required by some schools); and Physics 221-222 or the equivalent. Mathematics 132 and 143 are recommended. A two semester calculus sequence (Mathematics 161-162) is required by very few schools.

Because a few schools have unique requirements, students should consult with P. Tigchelaar to determine specific requirements of the schools to which they intend to apply.

Pre-medical and pre-dental students normally take their Medical College Admissions Test (MCAT) or Dental Admissions Test (DAT) in the spring of their junior year and should apply for admission to medical or dental schools during the summer prior to their senior year.

Ministry

The Association of Theological Schools (A.T.S.) recommends that pre-seminary students develop the ability to think, communicate, and do independent research. As well, pre-seminary students should learn about human culture and society, and they may develop proficiency in Biblical languages, Latin, and modern languages. Pre-seminary students should consult the catalogs of the seminaries that they intend to enter for specific admission requirements. Pre-ministry students should direct any questions to a member of the pre-ministry advising team: M. Lundberg (Religion), team coordinator; D. Cooper, Jubilee Fellows Leader; J. Witvliet, Director of the Music and Worship Program.

To qualify for admission to Calvin Theological Seminary, students must meet all of Calvin's requirements for a bachelor's degree, as well as the admissions requirements of the seminary, including a minimum grade point average of 2.67. Calvin Theological Seminary recommends that pre-seminary students emphasize the following areas of study: Classical civilization, English, Greek, history, philosophy, psychology, sociology, and theology.

Calvin Seminary's Master of Divinity (M. Div.) program prepares persons for ordination. To enter the Master of Divinity program, pre-seminary students must complete the following courses:

Language:	At least two years of Greek
Humanities:	A total of at least 24 semester hours (8 courses) in English, history, and philosophy, with at least two semester-length courses each in literature, history, and philosophy (preferably history of philosophy)

Natural science, social science, and speech: At least two courses in each

Calvin College students should include the following courses in their programs: Greek 205-206; Philosophy 251 and 252; and Communication Arts and Sciences 101 and 200. Communication Arts and Sciences 203 and 240 are recommended.

Calvin Seminary's Master of Arts in Educational Ministry program prepares persons for positions of educational leadership. The courses required for admission are generally met by the college graduation requirements with the addition of one three semester hour course in philosophy.

Calvin Seminary's Master of Arts in Missions program prepares persons for leadership in professional settings such as missions and para-church organizations. Admission requirements are generally met by Calvin College graduation requirements with the addition of one three semester hour course in philosophy and one three semester hour course in Social or Cultural Anthropology.

Calvin Seminary's Master of Arts in Worship program prepares people to lead the church in the core activity of worship. Admission requirements are generally met by Calvin College graduation requirements with an additional six semester hours in Music and/or Art, which may include performance or studio classes; a minimum of three semester hours in philosophy; and a minimum of three semester hours in oral rhetoric.

Calvin Seminary's Master of Theological Studies program provides a theological education that emphasizes vocational objectives for students who are not seeking ordination. Specific requirements beyond those required for graduation from the college include four courses in Greek; competence in a modern foreign language through the second-year college level is recommended.

Professional Combined-Curriculum Programs

Occupational Therapy

Preparation for entrance into the field of Occupational Therapy (OT) requires earning a Master of Science degree (M.S.O.T.) or a doctor's degree (O.T.D.) in Occupational Therapy, completing a six-month internship, and passing a national board examination. Admission into these graduate programs requires a college degree with any major so long as certain specified courses are taken. It also requires work or volunteer experience in O.T., which can be arranged through the Service-Learning Center at Calvin.

Because the specific courses required for admission to occupational therapy are designated by the school offering the degree, the student should obtain a list of these required courses from each school to which they intend to apply. This step can be completed after arriving at Calvin and learning which schools offer O.T. programs. Before registering for classes, a schedule for each student is arranged in consultation with the pre-occupational therapy advisor, R. Nyhof, of the Biology Department.

Calvin College offers a 3-2 combined curriculum program with the Program in Occupational Therapy, Washington University School of Medicine in St. Louis, Missouri. A student participating in this program would spend three years at Calvin College taking the specific courses listed below, apply for acceptance into the program at Washington University, and if accepted, transfer to Washington University for the two clinical years. Upon successful completion of the first year, the student would receive a Bachelor of Science in Letters and Occupational Therapy from Calvin College and a M.S.O.T. from Washington University upon successful completion of the second year program. Alternatively, a student accepted into the O.T.D. program would spend three years at Washington University. A student applying from Calvin will receive preferential status in his/her application for either program.

The three-year program at Calvin includes the following requirements:

Biology 141, 205, and 206
CAS 215 or PE 215
Chemistry 115
Communication Arts and Sciences 101
History 151 or 152
Philosophy 153 and Philosophy 212 or Biology 396.

Religion 121 or 131
A Second course in Religion
Interdisciplinary 110, 149 and Interdisciplinary 150
English 101 and one course in literature
Foreign language, through the second year college competency
Mathematics 143 or Psychology 255
Music 103, 106, 236, or 238
Physical Education: 3 activity courses
Physics 223
Psychology 151, 201, and 212
Sociology 151 and 153
Medical terminology course (to be arranged)

Pre-professional transfer programs

Natural Resource Programs

Students interested in stewardship of God's creation can complete degrees in Resource Ecology, Policy and Management, and Resource Institutions and Human Behavior.

Resource ecology requires students to become proficient in biology, physical sciences, mathematics, and computer science. Students considering careers in researching fisheries, wildlife, and forestry should complete a biology concentration at Calvin, while also fulfilling graduate school requirements. Students should consider graduate education in Natural Resources to increase their employment options.

Resource policy and management requires students to become proficient in economic theory, management skills, social sciences, communication skills, and political institutions. This emphasis is appropriate for students who seek careers in management of resources (forestry, fisheries, and wildlife management), planning (landscape architecture), or policy (resource economics, policy, advocacy, education, and communication). Landscape architecture requires completion of courses in design, graphics, engineering, and planning.

Resource institutions and human behavior requires students to become proficient in social and behavioral sciences, learning how individual, group, and institutional behavior affects the use and allocation of natural resources.

Students follow one of two paths to gain professional competence in the Natural Resources, in any of the above fields: 1) Completion of a Bachelor's degree at Calvin followed by graduate study or 2) After two years of study at Calvin and then transfer to a professional program elsewhere. Transferring after two years is suggested for students interested in resource policy and resource management. Students who expect to transfer should complete the first two years of the Biology major, one year of mathematics, one year of chemistry, and as many courses in computer science and economics as possible.

Students interested in these areas should consult D. Warners, of the Biology Department, early in their college careers.

Optometry

Students wishing to become optometrists may complete three to four years at Calvin before entering optometry school to complete four additional years of study culminating in the Doctor of Optometry (O.D.) degree. Most optometry schools now prefer that transfer students complete a B.A. or B.S. degree before entering optometry school. Requirements of the various schools vary, but all require the following:

	Semester hours
Biology 141 and 242	8
Biology 207 or 336	4
Chemistry 103 and 104	8
Chemistry 261 and 262 or 253	5-10

Physics 221 and 222	8
Mathematics 132 or 161	4
Mathematics 143	4
English 101 and a literature course	6
Social Science (Psychology 151, Sociology 151)	3-6

Many schools also recommend physiology, anatomy, biochemistry, and a business or economics course. These requirements may be met within the context of a biology major or group science major at Calvin College. Students should consult the website of the Association of Schools and Colleges of Optometry (www.opted.org) and work with the pre-optometry advisor, J. Ubels, to plan a course of study that meets the requirements of the optometry schools to which they intend to apply. All applicants to optometry school are required to take the Optometry Admission Test (OAT), which is offered each year in October and February. Application deadlines at the various optometry schools range from January 1 to April 1.

Pharmacy

Calvin College does not offer courses in pharmacy; however, students may take courses at Calvin that are prerequisites for acceptance to a pharmacy school. Students interested in a career in pharmacy will complete two to three years at Calvin College before transferring to a college of pharmacy to complete four additional years of study culminating in a Doctor of Pharmacy (Pharm.D.) degree. Pre-pharmacy requirements of the various pharmacy schools vary greatly and change often. Some schools do not accept advanced placement credits. Students should carefully and frequently consult the American Association of Colleges of Pharmacy website (www.aacp.org) and the websites for the pharmacy schools to which they intend to apply to plan an appropriate course of study. The pre-pharmacy advisor, J. Ubels, will assist students in planning a pre-pharmacy curriculum. Most pharmacy schools require the Pharmacy College Admission Test (PCAT), which should be taken in the fall semester of the student's final year at Calvin.

Physical Therapy

Students wishing to enter the field of Physical Therapy (PT) must complete a master's degree (M.S.P.T.) or a doctor's degree (D.P.T.) in Physical Therapy. Beginning in the year 2020, a D.P.T. will be required for entrance into the profession. Students at Calvin College can prepare to complete this degree in two ways. First, students may complete two years of prerequisite courses at Calvin (prerequisite courses are described later) and then transfer to the general undergraduate program at an Institution offering a graduate degree. Following a third year, they could apply to a professional school at that institution to earn the M.S.P.T. or D.P.T. degree. Second, students may complete the prerequisite courses in conjunction with a degree program in any discipline. Students then attend graduate school. Because admission to graduate programs in Physical Therapy is very competitive, students are frequently advised to choose the second option; this option will lead to a degree in addition to completing the prerequisite courses. Calvin has developed an articulation agreement with the Herbert H. and Grace A. Dow College of Health Professions Physical Therapy Program at Central Michigan University (CMU). Under this agreement, CMU will guarantee acceptance for up to two Calvin students per year who have met their requirements.

The prerequisite courses depend on the graduate school to which students wish to apply; therefore, students should obtain a list of requirements for each of the schools to which they plan to apply. Below is a sample list of prerequisite classes for non-Biology majors. Students are encouraged to contact the advisor of the pre-physical therapy program, R. Nyhof, of the Biology Department, before they register for classes. Students must also work or volunteer with patients under the supervision of a licensed physical therapist. This can be arranged through the Service-Learning Center at Calvin.

First Year Fall Semester	*First Year Spring Semester*
Biology 205	Biology 141
Chemistry 103	Chemistry 104
Core courses	Core or major concentration courses
Second Year Fall Semester	*Second Year Spring Semester*
Biology 206	Mathematics 143 or Psychology 255
Chemistry 253	Psychology 201
Psychology 151	Core or major concentration courses
Core or major concentration courses	
Third Year Fall Semester	*Third Year Spring Semester*
Physics 221	Physics 222
Core or major concentration courses	Core or major concentration courses
Chemistry 323	

Physician Assistant

Students who would like to practice medicine under the supervision of a licensed physician should consider becoming a Physician Assistant (PA). A Physician Assistant can record medical histories, perform physical examinations, make diagnoses, counsel patients, order and administer laboratory tests, assist in surgery, set fractures, and, in most states, prescribe drugs.

Each graduate program determines their prerequisite courses, and since there is so much variability from one program to another, Calvin College does not offer a specific program for students who want to prepare for a career of Christian service as a Physician Assistant. Rather, students can major in any discipline so long as they complete the prerequisite courses for the graduate program to which they intend to apply. Students who desire to pursue a career as a Physician Assistant should contact either P. Tigchelaar or R. Nyhof for advice about preparatory courses and hours of direct patient care required by particular clinical training programs.

Academic Departments and Courses

Description of courses offered by the various departments

The symbols F (Fall), I (Interim), S (Spring), and SS (Summer Session) indicate when each course is offered. Courses marked with an asterisk (*) may be applied to graduate programs. The credit (semester hours) for each course is indicated in parentheses after the course name. **Interim course descriptions will be available October 2007.**

Faculty members on leave of absence for the academic year are indicated by a (†), those on leave for the first semester by an asterisk (*), and those on leave the second semester by double asterisks (**).

Academic Services

T. Steenwyk (director), L. Bosch (international student advisor), J. Bosscher (math Instructor), K. Broekstra (coordinator of services to students with disabilities), J. DeBoer (assistant coordinator of services to students with disabilities), J. DuMez (English instructor), A. Granderson-Kitomary (academic counselor), J. Heerspink (tutor coordinator)

Student Academic Services courses (ASC) provide academic instruction in English, mathematics, and college-level thinking and learning skills. Class size and schedules are designed to give ample opportunity for individual instruction and personal conferences with instructors. All courses include training in study methods appropriate to the subject being studied.

Courses designed to review pre-college work, designated with numbers below 010, do not carry credit for graduation. However they are, recognized by The Office of the Registrar and the Office of Financial Aid as registered units, which count toward full-time status and toward financial aid eligibility. Non-credit courses appear on student transcripts with grades, but do not carry honor points. Failure to complete a prescribed Academic Services Course (ASC) with the required grade may require repeating a course or may make an Access student or a student on probation subject to dismissal. Access students and students on probation normally register for a total of twelve to fourteen semester hours including any required non-credit courses. Please see additional information under Office of Student Academic Services and The Access Program, or visit our website at: www.calvin.edu/academic/sas.

COURSES

003 **Review of Written English as a Second Language** (3). F, no credit. This course provides instruction and extensive practice in written English for students whose native language is other than English. It includes grammar study, vocabulary development, and reading practice. Students are assigned to this course on the basis of scores on the locally administered placement test of English Language Proficiency. Enrollment in English 101 the following semester requires the recommendation of the ASC 003 instructor and the English Department.

004 Mathematics for the Liberal Arts Student (3). F and S, no credit. This course is taught with a particular emphasis on development of mathematical thinking and problem solving. It includes such topics as: properties of real numbers, linear equations and inequalities, polynomials and exponents, and quadratic equations. The course is designed to bring students to the level of competence needed for ASC 005, Mathematics 100, Mathematics 143, Mathematics 221, Economics 151, Astronomy 110, Biology 111, Chemistry 103, Physical Science 110, and other core courses. A final grade of C or higher is required for successful completion of the course.

005 Intermediate Algebra for the Business & Science Student (3). F and S, no credit. This course presents materials with an em-

phasis on development of problem-solving skills and mathematical reasoning. It is a study of such topics as: graphing, linear equations, exponents and polynomials, quadratic and logarithmic functions, and right angle trigonometry. The course is intended as preparation for Econ 200; Math 110, 132, 201; or for students in mathematics-oriented majors who require additional instruction in mathematics. A final grade of C or higher is required for successful completion of the course.

111 Academic Transitions (1). F and S. This course introduces students to select strategies, theories, and approaches to learning. Students will apply these concepts and will understand the effects of motivation and behavior on learning. Course content is applicable across all academic disciplines. Open to first and second year students; others by permission of Student Academic Services.

112 Strategies for Academic Success (3). F. This course introduces students to theories of learning and motivation. Students will apply these theories to a paired course and to their broader academic studies. This course is relevant for students across all academic disciplines. Open to first year students; others by permission of Student Academic Services (SAS). Concurrent registration in a selected paired course is required. Scheduling must be arranged through SAS.

Accountancy

The accountancy program at Calvin College is intended to prepare students for careers in accounting by balancing a comprehensive survey of accounting courses, various business and economics electives, and the college's strong liberal arts core curriculum. Preparation for a career in accounting can be accomplished by completion of one of two degrees: the Bachelor of Science in Accountancy and the Bachelor of Science in Public Accountancy. The Bachelor of Science in Accountancy degree is a four-year program intended for students who want to prepare for a career in accounting other than public accounting. The program requires 56 credit hours in the Departments of Business and Economics and a modified core requirement. The Bachelor of Science in Public Accountancy degree meets the 150 credit hour education requirement adopted by Michigan and most other states to prepare students who wish to sit for the Certified Public Accountant (CPA) examination.

See the Business pages for more information on the accounting degrees and model programs as well as descriptions of course offerings.

African and African Diaspora Studies

An interdisciplinary minor, African and African Diaspora is an integrative program that combines studies of Africa and people on the African continent with those of descendants who were dispersed by forced migration and voluntary immigration. The minor, therefore, has two tracks: one that focuses on Africa and the other on the Americas. For administrative purposes, students will choose one of two minors: African Studies (Track 1) or African Diaspora Studies (Track 2). J. Bascom of the Geography department, D. Isom of the Education department, and A. Patterson of the Political Science department serve as advisors for this program.

THE MINOR REQUIRES:

1. Four courses from one of the two tracks as listed below;

Track 1: Africa

- Geography 242
- History 241
- History 242
- Philosophy 226
- Political Science 279
- English 318
- Art 245

- Less Commonly Taught Languages (LCTL) 101
- Spanish 101
- French 219

- Any course in the annual semester in Ghanna Progam.
  - Common examples are Study in the Twi Language (STGH 100), Religions in West Africa (STGH 253), West African Literature (STGH 217), and Culture and People in Ghana (STGH 312).

- An advisor-approved interim (off-campus or on-campus).
  - Recent off-campus examples include Jamaica and Martinique.

Track 2: African Diaspora

- History 255
- History 256
- Sociology 303
- Sociology 252
- English 283
- French 101
- Spanish 101
- French 219
- Spanish 370

- An advisor approved interim (off-campus or on-campus).
  - Recent off-campus examples inlude Jamaica and Martinique

2. One additional course from the opposite track.

3. IDIS 391: Seminar in African and African Diaspora Studies

Students may not count more than two interim courses toward their requirements.

Students may not count more than one language course - KiSwahili, Twi, French, or Spanish - toward their requirements.

COURSES

Kiswahili

LCTL 101 Elementary Kiswahili I (4). This course is an introduction to spoken and written Kiswahili. The course is designed for students with no previous experience with the language. It will expose them to the people and cultures of Kiswahili-speaking countries and enable them to learn elementary spoken Kiswahili as well as basic grammar concepts needed to communicate with Kiswahili-speaking peoples in East Africa. Students will develop a deeper understanding of East Africa through exposure to film, art, culture, journalistic interviews, history, and literature. No prerequisites.

LCTL 102 Elementary Kiswahili II (4). This course continues the study of Kiswahili grammar with equal emphasis on improving conversational proficiency and on reading and writing Kiswahili. Students will gain

more insight into the cultures of Kiswahili-speaking peoples. Prerequisite: LCTL 101 or permission from the instructor after testing.

LCTL 201 Intermediate Kiswahili I (4). This course concentrates on developing communicative skills to enable the learners to engage in meaningful verbal interactions with other Kiswahili speakers. In order to achieve this goal, most lessons are task-based, both pedagogic and real-life tasks. Activities such as role-play, creating sample materials, discussion, story telling, describing scenes, and studying authentic cultural objects are used. Reading and writing passages are carried out as would be in a Kiswahili-speaking community. Prerequisite: LCTL 102, or permission of the instructor.

LCTL 202 Intermediate Kiswahili II (4). A continuation of 201, this course concentrates on developing communicative skills to enable the learners to engage in meaningful verbal interactions with other Kiswahili speakers. In order to achieve this goal, most lessons are task-based, both pedagogic and real-life tasks. Activities such as role-play, creating sample materials, discussion, story telling, describing scenes, and studying authentic cultural objects are used. Reading and writing passages are carried out as would be in a Kiswahili-speaking community. Prerequisite: LCTL 201 or permission of the instructor.

IDIS 391 Senior Seminar in African and African Diaspora Studies (3). S, alternate years. This course covers the parallel and simultaneously unique stories of Africa and the African Diaspora from their common colonial histories to the contemporary issues and transformative movements of today. From Africa to the West, colonialization and neo-colonialization have formed the historical and social context from which racialized gender representations, identity, and resistance have emerged. Drawing on the fields of sociology, history, anthropology, political science, economics, and theology, this course utilizes a Christian lens to explore and critique those colonialism/neo-colonial roots as well as current issues, social movements, economic development, and the role of the church in transformative efforts throughout the Diaspora. Special attention is paid to critical theory, the neo-colonial social context, its operational impact, globalization, and means for social change. As a senior seminar, the course utilizes a seminar approach where the class discussion and structure derives from interactions with the texts, guest lectures, theories, and ideologies. The course carries an honors option (to be arranged with the professor). Prerequisites: Three courses from the African or African Diaspora minor (at least two of which must be in areas other than language or literature) or by approval of the professor. Not offered in 2007-2008.

Archaeology

The minor in archaeology may be taken in conjunction with any major. It is designed to serve both those students who wish to study archaeology out of extra-vocational interest and those who wish qualification for graduate programs in archaeology. Students interested should seek faculty advice as specified below.

Group Minor in Archaeology
Interdisciplinary 240
Interdisciplinary 340

Twelve semester hours from the following:
Architectural History 201
Art Studio 250/300, 256/356
Art History 101, 241, 243, 245, 393
Biology 323, 346
Computer Science 141, 153
Classics 221
Engineering 101, 103
Geography 221/222, 320
Geology 151, 152, 311, 313/Biology 313, 314

History 231, 232, 235, 238, 241, 245, 261, 338
Museum Studies- Art 393, History 393, History Interim
Religion 311, 321
Sociology 153, 253, 303, 308
Two courses in ancient languages applicable to the archaeological culture studied
One Interim course, with archaeological focus
Other courses applicable to the student's archaeological interests.

Students may select a coherent sequence of four elective courses appropriate to their major and to their plans for further study with the approval of an advisor in the minor program. Sample programs in Old World Archaeology, New World Archaeology, and specialized fields such as Architectural Drawing in Archaeology are available. Language requirements for advanced work in archaeology vary. There are no language requirements for the archaeology minor, but students should consider plans for future work and study in completing college language requirements. For Old World archaeology, the best modern language choice is either French or German, while Spanish is useful for New World archaeology.

Supervising and Advising

The group minor in archaeology is administered by an inter-departmental committee, the Archaeology Minor Committee. The members of the committee in 2003-04 are B. de Vries (History), Program Coordinator, K. Bratt (Classics), R. Stearley (Geology), K. Pomykala (Religion), H. Luttikhuizen (Art), and T. VandenBerg (Sociology).

Interested students should consult a member of the Archaeology Minor Committee for selection of the specific courses for the minor.

COURSES

IDIS240 **Introduction to Archaeology** (3). A classroom introduction to archaeology with emphasis on archaeological theory, field work methods, artifact processing, and data interpretation. The course is designed to introduce students to the theoretical concepts of archaeology, participation in field work, and the critical reading of archaeological reports in both the Old World and New World archaeology. It serves as a prerequisite for Interdisciplinary 340.

IDIS340 **Field Work in Archaeology** (3-6). SS. Offered in conjunction with field work done by Calvin faculty or quality field schools of other universities. An on-site introduction to archaeological field work designed to expose the student to the methodologies involved in stratigraphic excavation, typological and comparative analysis of artifacts, and the use of non-literary sources in the written analysis of human cultural history. Also listed as History 380. Prerequisites: Interdisciplinary 240 and permission of the instructor.

Art and Art History

Professors D. Diephouse (chair), A. Greidanus, H. Luttikhuizen, F. Speyers
Associate Professor J. Steensma Hoag
Assistant Professors J. Chen, C. Hanson, E. Van Arragon, J. Van Reeuwyk, A. Wolpa
Instructor Y. Ahn

Calvin's art department offers both Bachelor of Arts and Bachelor of Fine Arts degrees. Students opting for a Bachelor of Arts degree may choose from the major concentrations of studio art, art history, and art education. The department also offers minors in studio art and art history.

The Bachelor of Fine Arts (B.F.A.) program, which has a greater professional emphasis, is described in detail below.

Visual Arts (B.F.A.)

Students who are interested in the Bachelor of Fine Arts degree (B.F.A.) program at Calvin should consult with A. Greidanus of the Department of Art, faculty advisor for the B.F.A. program.

Before applying for admission to the program, a student must have completed three studio art courses in college. Application forms and information on requirements for admission are available in the Art Department office. Submit applications by the first Wednesday in October or the first Wednesday in March.

A student wishing to obtain a B.F.A. degree in art must successfully complete 124 semester hours, including three interim courses, the regular liberal arts core requirements, with the *exception* of a reduced foreign language requirement, equivalent to one year in college, and a prescribed program of concentration.

Program of Concentration: 63 hrs.

Art 153	4 hrs.
Art History 101 or Architectural History 201	4 hrs.
Art History 102 or Architectural History 202	4 hrs.
Art History 238, 239, or 240	3 hrs.
One Art History Elective	3 hrs.
Five Introductory Studio Courses from:	
Art Studio 250, 251, 255, 256, 257, and 258	15 hrs.
Four Intermediate Studio Courses from:	
Art Studio 300, 301, 305, 306, 307, 308, and 316	12 hrs.
Three Advanced Studio Courses from:	
Art Studio 350, 351, 355, 356, 357, 358, and 380	9 hrs.
Two Electives from Art Studio or Art History	6 hrs.
Art Studio 395	3 hrs.

Recommended Cognate:
Philosophy 208

STUDIO ART MAJOR

Art 153
Art History 101 or Architectural History 201
Art History 102 or Architectural History 202
Two Introduction Studio Courses
Two Intermediate Studio Courses
One Advanced Studio Course
One Art History or Studio Elective
Art Studio 395

STUDIO ART MINOR

Art 153
Art History 101 or Architectural History 201
Art History 102 or Architectural History 202
Two Introduction Studio Courses
One Intermediate Studio Course
One Studio Elective

ART HISTORY MAJOR

Art 153
Art History 101 or Architectural History 201
Art History 102 or Architectural History 202
Art History 232 or 233 or Classics 221
Art History 234 or 235 or 237
Art History 238 or 239 or 240
Art History 241 or 243 or 245
Two Art History Electives
Art History 397 or Architectural History 397

Cognates
Philosophy 208
Second Foreign Language

ART HISTORY MINOR

Art 153
Art History 101 or Architectural History 201
Art History 102 or Architectural History 202
Art History 232 or 233 or Classics 221
Art History 234 or 235 or 237
Art History 238 or 239 or 240
Art History 241 or 243 or 245

ART EDUCATION K-12 COMPREHENSIVE MAJOR
(NO MINOR REQUIRED)

Art 153
Art Studio 250
Art Studio 255 or 256
Art Studio 257 or 258
Art Studio 251
Five studio art electives (including two intermediate courses and one advanced course)
Art Education 315, 316 and 359
Art History 101 and 102
Art History 238, 239, or 240
Art History 241, 243, or 245

Prior to the teaching internship, students must have the approval of the department. Criteria for approval are found in the *Teacher Education Program Guidebook*, available in the Education Department.

Students must have earned a grade of "C" (2.0) or better in Art 153 before applying for admission to the studio art and art education programs.

ELEMENTARY EDUCATION FINE ARTS GROUP MAJOR AND MINOR

All Fine Arts Group Majors must complete at least 36 semester hours of courses in Art, Music, and Communication Arts and Sciences. All minors must complete at least 24 semester hours of courses in these three areas. All majors and minors must take Art Education 315; Communication Arts and Sciences 214; and Music 238. In addition, students majoring in Fine Arts must complete a sequence of courses from two of these disciplines chosen in consultation with a fine arts education advisor. Students minoring in fine arts must complete a sequence of courses from one of these disciplines and some additional electives chosen in consultation with a fine arts advisor. Fine Arts Advisors: J. VanReeuwyk, Art; R. Buursma, Communication Arts and Sciences; and P. Hash, Music.

COURSES

153 **Visual Culture** (4). F and S. An introduction to the function of visual images as tools of persuasive communication. This course will better equip students to communicate effectively with visual images and critically examine their various uses in contemporary culture. Intended for first- and second-year students only.

Art Education

210 **Methods for the Elementary Teacher** (3). F. This course is an introduction to image-making and to various methods of teaching art at the elementary-school level. The course is designed to meet the needs of general education and special education students. It includes lectures, studio experiences, collaborative assignments, demonstrations, and opportunities to work with children from area schools through service learning hours. This course meets core requirements in The Arts section in Core Competencies. Open to sophomores, juniors, or seniors or by permission of the instructor.

315 **Introduction to Elementary Art Education** (3). S. This course is an introduction to the field of art education in general as well as art education methods specifically for the elementary school level. This course is designed to meet the needs of the Art Education student (K-12) and is pre-requisite to ARTE 316: Secondary Art Education. It is also designed to meet the needs of the Education student taking a Fine Arts group major or minor. This course includes lectures, studio experiences, and collaborative assignments as well as assignments to create art lesson plans, units and a personal philosophy of Art Education. Partnership opportunities to work with area school children through service learning hours are included. Prerequisites: Education 302/303 or permission of the instructor.

316 **Secondary Art Education** (3). F. This course introduces students to various methods of teaching art in the secondary school and to professional standards in art education. It will also guide prospective teachers in developing a responsible pedagogical approach that they can call their own. To foster greater socio-historical understanding, throughout this course, the function of visual images will be addressed in relation to their cultural setting. This course includes lectures, studio projects, demonstrations, and art teaching experiences with students from area schools. This final component will be met through service learning hours. Prerequisites: Art 153, Arte 315, Education 302/303.

359 **Seminar in Principles and Practices in Art Teaching** (3). S. A course on principles and practices in the teaching of visual culture at the elementary and secondary levels. This course must be taken concurrently with Education 346. Students must be admitted into Directed Teaching by the Art and Education departments prior to enrollment.

Studio Courses

250 **Introduction to Drawing** (3). F and S. An introduction to drawing media. This course teaches the basic understanding and use of drawing materials and techniques through the construction of visual problems and solutions related to pictorial space (line, shape, value, volume, scale, composition, and perspective). Students will be expected to produce visually effective drawings through control and execution of the media. Visual, conceptual, and technical concerns will be reinforced through readings, discussions, demonstrations, and critiques. This course will address the use of drawing, not only as a means of developing observational skills, but also that of practicing critical and visual discernment. Materials fee. Prerequisite: Art 153.

251 **Introduction to Painting** (3). * F and S. An introduction to the painting medium. This course initiates technical and visual problems and solutions related to the study of painting (color, form, shape, and composition), as well as an investigation of adjoining critical issues that include perception, representation, likeness, and facture. Students will be expected to produce visually effective paintings through control and execution of the media. This course addresses critical issues surrounding the production of painted images, the tradition of painting, and the use of painting as a means of developing observational skills, as well as critical and visual discernment. Visual, technical, and conceptual concerns will be reinforced through readings, discussions, demonstrations, and critiques. Materials fee. Prerequisite: Art Studio 250.

255 **Communication Design I** (3). * F and S. An introduction to the image-based software as a problem-solving approach to Internet oriented communication design. Emphasis is on developing and integrating visual acuity with software dexterity in order to communicate with meaning and purpose. Typography, illustration, and photography are integrated to develop visual problem-solving skills. Selected projects are designed to develop visual understanding and encourage critical discernment. Materials fee. Prerequisite: Art 153.

256 **Introduction to Photography** (3). * F and S. An introduction to basic photographic techniques and the process of black and white photography including camera operation, film processing, printing, and presentation. Course work emphasizes visual problems and solutions specific to photography, such as flatness, frame, time, and focus. The ability to produce photographic images with visual effectiveness through control and execution of the media is stressed. Visual and technical abilities will be reinforced through readings, discussions, demonstrations, critiques, and lectures. The history of photography and critical approaches to the media will be introduced and inform the context of study. Materials fee. Prerequisite: Art 153.

257 **Introduction to Sculpture** (3). * F and S. An introduction to the production of three-dimensional objects through methods and technologies of sculpture. Course work emphasizes visual problems and solutions specific to sculpture including the basic components of three-dimensional form and the manipulation of space. Students will be introduced to a variety of materials such as pre-fabricated, found media, plaster, wood, stone, metal, and composites. Students will be expected to produce sculptural objects with visual effectiveness through control and execution of the media. Visual acuity and technical abilities will be reinforced through readings, discussions, demonstrations, critiques, and lectures. The history of sculpture and critical approaches to the media will lead to an understanding of how three-dimensional forms give shape to ideas and beliefs. Materials fee. Prerequisite: Art Studio 250.

258 **Introduction to Ceramics** (3). * F and S. This course introduces students to the basic components of ceramics, including the construction of three-dimensional forms and the organization of space. Students will learn traditional and contemporary methods of working with clay and glazes. Course work addresses visual problems and solutions spe-

cific to ceramics, the texture of materials, and the manipulation of space. Visual acuity and technical abilities will be reinforced through readings, discussions, demonstrations, critiques, and lectures. The history of ceramics and critical approaches to the media will lead to an understanding of how three-dimensional forms give shape to ideas and beliefs. Materials fee. Prerequisite: Art Studio 250.

300 **Intermediate Drawing** (3). F and S. A further exploration of the activity of drawing. This course emphasizes the critical engagement of visual problems and solutions through the development of a drawing portfolio. The primary source material for this course is the human figure, utilized for visual and technical investigation of pictorial space, as well as for contemporary critical issues surrounding the representation of the self and others. Materials fee. Prerequisite: Art Studio 250.

301 **Intermediate Painting** (3). *S. A further exploration of painting ideas and media. This course emphasizes the critical engagement of visual problems and solutions through the development of a painting portfolio. Students will be expected to participate in ongoing group and individual critiques, discussions of assigned readings, and contribute to the dialogue in a bi-weekly painting seminar. Through critical engagement of contemporary painting practices, this course initiates patterns of individual research in the production of a painting portfolio. Materials fee. Prerequisite: Art Studio 251.

305 **Communication Design II** (3). * F. This course focuses on dynamic, interactive interface website design. Using WYSIWYG editors, vector, bitmapped graphics and motion, and MP3 audio are integrated to produce website portals that are usable and intuitive in the visualization of their navigation. Students will learn how to use low-bandwidth, high-impact, image-based software that allows users to navigate through linear, nonlinear, spatial, parallel, hierarchical, and matrix timeline structures, which lead to useful, virtual interaction. Projects are designed to construct visual interfaces, which optimize site navigation without programming. Materials fee. Prerequisite: Art Studio 255.

306 **Analogue Photography** (3). * F. A further exploration of the visual and technical aspects of the photographic medium, with study of critical theory specific to analogue photography. A variety of professional equipment, processes, and advanced techniques will also be introduced, including color and artificial lighting. Course work emphasizes the application of technical readings, demonstrations, and lectures through the production of effective photographic images. Photographic criticism is addressed through readings, lectures, studio assignments, critiques, and a final project. Materials fee. Prerequisite: Art Studio 256.

307 **Intermediate Sculpture** (3). * F and S. A further investigation of the visual and technical aspects of sculptural media and organization of space. This course will require the production of a portfolio of sculptural objects. Special attention will be given to the use of particular production methods, issues of presentation, and the relationship between concept and process. Critical theory specific to sculpture is addressed through readings, lectures, and class projects. Materials fee. Prerequisite: Art Studio 257.

308 **Intermediate Ceramics** (3). * F and S. A further investigation of the visual and technical aspects of clay, glazes, and other media. This course will require the production of a portfolio of ceramic objects. Special attention will be given to the use of particular production methods, issues of presentation, and the relationship between concept and process. Critical theory specific to ceramics is addressed through readings, lectures, and class projects. Materials fee. Prerequisite: Art Studio 258.

316 **Digital Photography** (3). * F. An exploration of the visual and technical aspects of photography with an emphasis on digital media. A study of critical theory specific to digital photography will be addressed. Topics covered will include digital image acquisition, manipulation, storage, and display. Course work emphasizes the application of technical readings, demonstrations, and lecture through intensive production of digital images. Criticism is addressed through readings, lectures, studio assignments, critiques, and a final project. Materials fee. Prerequisite: Art Studio 256.

350 **Advanced Drawing** (3). * F and S. This course addresses individual research and conceptual problem solving through the production of a cohesive portfolio of drawings. Students will be encouraged to experiment with the use of new technologies and non-traditional drawing media. In addition to discussions of assigned readings, students will participate in ongoing group and individual critiques that will focus on the individual development and critical understanding of drawn images and ideas. Materials fee. Prerequisite: Art Studio 300.

351 **Advanced Painting** (3). * S. A further investigation of painting ideas and media. This course emphasizes individual research and conceptual problem solving through the production of a portfolio of paintings. As part of this course, students will be encouraged to experiment with new technologies and non-traditional painting media supports. In addition to helping lead the biweekly seminar on contemporary issues in painting, students will participate in ongoing group and individual critiques that will focus on the development of images and ideas toward a cohesive painting portfolio. Materials fee. Prerequisite: Art Studio 301.

355 **Communication Design III** (3). * S. This course expands site portal design from narrow to broad bandwidth streaming digital imagery. Navigating within time line image frames and MP3 audio will be integrated, calibrated, and coalesced with overlapping clips in order to construct visual narratives which resonate with specific market audiences. Design work flows will be streamlined to optimize the synchronization of audio with vector and bitmapped images, with an emphasis on achieving a portal's predicated performance. Emphasis will be on personal development of technical and imaginative skills. Materials fee. Prerequisite: Art Studio 305.

356 **Advanced Photography** (3). *S. An emphasis on individual research and conceptual problem solving in the production of a coherent body of analogue and/or digital photographic work. Class time will consist of critiques on the quality of concept and presentation of idea in student images, in addition to discussions of assigned technical and critical readings. Students will be evaluated on a photography portfolio and a class presentation of their work. Materials fee. Prerequisite: Art Studio 306 or 316.

357 **Advanced Sculpture** (3). * F and S. This course directs individual research in the production of a cohesive body of sculptural work. Requirements include regular critiques of works in progress and discussions of techniques and critical readings. Student portfolios will be evaluated on the basis of craft, concept, and presentation. Students will examine possible ways in which they can make contributions to the field of sculpture and visual culture. Materials fee. Prerequisite: Art Studio 307.

358 **Advanced Ceramics** (3). * F and S. This course directs individual research in the production of a cohesive body of ceramic work. Requirements include regular critiques of works in progress, discussions of techniques, and critical readings. Student portfolios will be evaluated on the basis of craft, concept, and presentation. Students will examine possible ways in which they can make contributions to the field of ceramics and visual culture. Materials fee. Prerequisite: Art Studio 308.

380 **Internship in Communication Design** (3). F and S, tutorial. A practicum in which students work ten hours per week for one semester under an employer supervisor and participate in a series of internship seminars. Students apply theoretical, ethical, and technical aspects of graphic design or photography to specific problems in visual communication. Personal journals, assigned art projects, and regular meetings with the supervising instructor are required. To enroll in this course, students must submit a written proposal to the chair for approval. Prerequisites: Five studio art courses and departmental approval.

385 **Internship in Visual Studies** (3). * F and S, tutorial. A practicum in which students work a minimum of ten hours per week for one semester in an art-related field under the supervision of a studio artist, professional designer, or gallery director. Students will also meet regularly with an instructor on campus to address lessons learned. To enroll in this course, students must submit a written proposal to the chair for approval. This course is not intended for students concentrating in communication design. Prerequi-

sites: Five studio art courses and departmental approval.

390 **Independent Study in Studio Art** (3). * F and S, tutorial. An advanced course providing opportunities for investigating the use of new techniques or new materials, including mixed-media. To enroll in this course, students must submit a written proposal to the chair for approval. Prerequisites: Five studio art courses and departmental approval.

395 **Senior Seminar in Studio Art** (3). * F. A capstone seminar course for all seniors majoring in studio art, which re-examines the integral relationship between the production of visual images and faith commitments. Students will examine contemporary theories and practices in art criticism, while refining their own religious convictions. In addition, students will address ethical issues related to art-making as they prepare for professional careers in art-related fields. Slide lectures, selected readings, and class discussions; completion of an art portfolio and an artist statement is required. Prerequisite: Senior standing with a major in studio art.

The following art courses may be part of supplementary concentrations in journalism: Art Studio 255, 256, 305, 306, 316, 355, and 356.

Art History

101 **Introduction to the History of Art I** (4). F and S. This course surveys the history of the visual arts from the Paleolithic era to the Renaissance. Although this course concentrates primarily on the development of the historical and religious traditions of Europe, the artistic traditions of non-Western cultures are also addressed. The course is intended for first- and second-year students.

102 **Introduction to the History of Art II** (4). F and S. This course is a historical survey of the visual arts in Western civilization from the Renaissance to the present. It is intended for first- and second-year students.

232 **Early Christian and Byzantine Arts** (3). * S, odd years. A historical study of the form and function of visual images in the Early Christian and the Byzantine traditions. Special attention will be given to the rise of the cult of saints, to the veneration and destruction of religious icons, and to the relationship between sacred images and the imperial court. Slide lectures and class discussions; a research paper is required. Prerequisite: Sophomore standing or above. Not offered 2007-2008.

233 **Medieval Art** (3). * S, even years. A historical study of the form and function of visual images in Western Europe from 400 to 1400. Special attention will be given to the relationship between art and the crusades, to tensions between monastic orders, and to the role of visual images in various kinds of mysticism. Slide lectures and class discussions; a research paper is required. Prerequisite: Sophomore standing or above.

234 **Northern Renaissance Art** (3). * F, odd years. A historical study of the form and function of visual images in Netherlandish and German cultures from 1400 to 1550. Special attention will be given to the rise of naturalism, to the relationship between art and religious devotion, and to the emergence of an art market. Jan van Eyck, Hieronymus Bosch, Pieter Bruegel, and Albrecht Durer are some of the major artists studied. Slide lectures and class discussions; a research paper is required. Prerequisite: Sophomore standing or above.

235 **Italian Renaissance Art** (3). * F, even years. A historical study of the form and function of visual images in Italy from 1300 to 1550. Special attention will be given to the emergence of linear perspective, to the relationship between art and humanism, and to the invention of artistic genius. Giotto, Piero della Francesca, Leonardo da Vinci, and Michelangelo are some of the major artists studied. Slide lectures and class discussions; a research paper is required. Prerequisite: Sophomore standing or above. Not offered 2007-2008.

237 **Baroque and Rococo Art** (3). * S, odd years. A historical study of the form and function of visual images in Western Europe and the American colonies during the seventeenth and eighteenth centuries. Special attention will be given to relationship between art and the Catholic Reformation, to the rise of nationalism and modern science, and to the emergence of philosophical aesthetics. Caravaggio, Bernini, Rubens, Rembrandt,

Vermeer, and Watteau are some of the major artists studied. Slide lectures and class discussions; a research paper is required. Prerequisite: Sophomore standing or above. Not offered 2007-2008.

238 **Nineteenth-Century Art** (3). * S, even years. A historical study of the form and function of nineteenth-century art in Western Europe and the United States, from neoclassicism to impressionism. Special attention will be given to the relationship between art and the politics of revolution, to the cultural implications of industrialization, and to the search for scientific objectivity. David, Delacroix, Goya, Courbet, Manet, and Monet are some of the major artists studied. Slide lectures and class discussions; a research paper is required. Prerequisite: Sophomore standing or above.

239 **Modernism and the Arts** (3). * F, odd years. A historical study of the form and function of visual images in Western Europe and the United States from 1880 to 1960. Special attention will be given to the rejection of optical naturalism, to the emergence of psychoanalysis, to the World Wars, and to the development of modernism in various intellectual circles. Van Gogh, Cezanne, Matisse, Picasso, and Pollock are some of the major artists studied. Slide lectures and class discussions; a research paper is required. Prerequisite: Sophomore standing or above.

240 **Contemporary Art** (3). * F, even years. A historical study of the form and function of visual images in Western Europe and North America since 1960. Special attention will be given to the collapse of modernism, to the revolution in digital technologies, and to contemporary issues concerning race, cultural identity, and gender. Slide lectures and class discussions; a research paper is required. Prerequisite: Sophomore standing or above. Not offered 2007-2008.

241 **Asian Art** (3). * S, even years. A historical study of the form and function of visual images in Asian Cultures. Special attention will be given to India, China, and Japan. Students will address the relationship between visual images and political, religious, and social developments in Asia, including the spread of Hinduism, Buddhism, and Islam. Slide lectures and class discussions; a research paper is required. Prerequisite: Sophomore standing or above.

243 **Art of the Americas** (3). * F, even years. A historical study of the form and function of visual images in pre-Columbian and Native American cultures. This course will concentrate on cultural developments before contact with Western civilization, but issues of cultural interaction between Native American and immigrant European cultures will be addressed. Slide lectures and class discussions; a research paper is required. Prerequisite: Sophomore standing or above. Not offered 2007-2008.

245 **African and Oceanic Art** (3). *S, odd years. A historical study of the form and function of visual images in the African and Oceanic (Polynesian, Melanesian, and Australian Aboriginal) cultures. Special attention will be given to the relationship between religious commitments and artistic practices within these cultures. Slide lectures and class discussions; a research paper is required. Prerequisite: Sophomore standing or above. Not offered 2007-2008.

393 **Museum Studies** (3). * F and S, tutorial. An advanced course providing opportunities for studying the theory and practice of museum education and/or exhibition curatorial development and installation. Prerequisites: Five courses in art history and permission of the instructor.

397 **Methods in Art Historiography** (3). * F, odd years. A capstone seminar for all juniors and seniors majoring in art history, the course aims to provide an understanding of the development of art history as an academic discipline and the major methodological approaches available for engaging art objects. Special attention is paid to connecting these methodological issues to the rest of the art history curriculum including the integration of ethics and faith commitments. In preparing students for future work in art history, the course strives to hone critical thinking skills and instill in students a richer appreciation of the stakes of intellectual positions.

CLAS221 **Graeco-Roman Art and Architecture**.

Architectural History and Criticism

201 **Architectural History I** (4). F. A survey of the history of architecture from the Paleolithic era to the Renaissance. Although this course will concentrate primarily on the development of the historical and religious traditions of Europe, the development of non-Western traditions prior to 1500 will also be addressed. Slide lectures and class discussions. Intended for first- and second-year students.

202 **Architectural History II** (4). S. A survey of the history of architecture from the Renaissance to the present. Although this course will concentrate primarily on the development of the historical and religious traditions of Europe, the development of non-Western traditions after 1500 will also be addressed. Slide lectures and class discussions. Intended for first- and second-year students.

397 **Architectural Theory and Criticism**. S, odd years. A capstone seminar course for all juniors and seniors enrolled in the pre-architecture program, which re-examines the integral relationship between architectural theories and faith commitments. Special attention will be given to contemporary criticism. Students will address ethical and religious issues as they address various methods of architectural design and practice in preparation for careers in architecture and urban planning. Imaging and verbal discussions; a course paper is required. Prerequisites: Junior or senior standing.

Graduate Courses

590 **Independent Study**. F, I, and S.

Asian Studies

The Major in Asian Studies consists of three tracks. The Calvin semester in China (STCH 203 and 204) may substitute for History 245 or 246 and Philosophy 225. The semester program at the Japan Center for Michigan Universities, because its curriculum varies somewhat from year to year, may substitute for such courses as may be decided appropriate by the Asian Studies advisor and the Committee for the Asian Studies Major. (D. Bays, History, Chair; K. Clark, Philosophy; L. Herzberg, Asian Languages; D. Obenchain, Religion)

ASIAN STUDIES MAJOR

Choose one of the following tracks as listed below:

TRACK 1: CHINESE LANGUAGE

*Minimum of 8 Chinese language courses and 4 culture courses, with at least one of the latter at the 300 level.

1. History 245 or 246: East Asia
2. Philosophy 225: Chinese Thought and Culture
3. Religion 255: World Religions
4. One 300 level culture elective from the list below
5. Eight Chinese language courses from the list below

TRACK 2: JAPANESE LANGUAGE

*Minimum of 8 Japanese language courses and 4 culture courses, with at least one of the latter at the 300 level.

1. History 245 or 246: East Asia
2. Philosophy 225: Chinese Thought and Culture
3. Religion 255: World Religions
4. One 300 level culture elective from the list below
5. Eight Japanese language courses from the list below

TRACK 3: AREA STUDIES

*Minimum of at least 4 language courses and 8 culture courses, with 3 of the latter at the 300 level.

1. History 245 or 246: East Asia
2. Philosophy 225: Chinese Thought and Culture
3. Religion 255: World Religions
4. Five culture classes from the list below, three of which must be at the 300 level.
5. Four language courses, in the same language, from the list below.

Art 241: Asian Art
Chinese 101/102: Elementary Chinese I, II
Chinese 201/202: Intermediate Chinese I, II
Chinese 215/216: Advanced Chinese I, II
Chinese 217/218: Modern Chinese Literature I, II
Japanese 101/102: Elementary Japanese I, II
Japanese 201/202: Intermediate Japanese I, II
Japanese 215/216: Advanced Japanese I, II
Japanese 217/218: Modern Japanese Literature I, II
History 235: India and its World
History 245: East Asia to 1800
History 246: East Asia since 1800
History 272: The Contemporary World: The Korean War and the Cold War
History 346: Modern China
History 371: Asia and the Pacific Since 1850
Political Science 277: Asian Politics
Religion 354: Hinduism
Religion 355: Buddhism
Interim Courses: In Asia or on Asian Topics
STCH 203: Traditional Chinese Civilization
STCH 204: Modern China
STCH 210: Emerging China
CHIN 390 (In Beijing)
JCMU courses

No more than two interims may count toward the Area Studies Track.

No interims can count toward the language tracks.

The Minor in Asian Studies consists of six courses, three required and three electives. The Semester in China (Semester in China 203 and 204) may substitute for History 245 or 246 and Philosophy 225. Courses taken at the Japan Center for Michigan Universities may substitute for required and/or elective requirements. No more than one interim course is allowed in the minor. D. Bays, of the History Department, serves as Chair of theCommittee for the Asian Studies Minor; K. Clark, of the Philosophy Department, L. Herzberg, of the Foreign Languages Department, and D. Obenchain of the Religion Department, serve on the Ad Hoc Committee for the Asian Studies Minor, as well.

ASIAN STUDIES MINOR

Three required courses:
History 245 or 246
Philosophy 225
Religion 255

Three elective courses:
Art 241
Chinese 101-218
Japanese 101-218
JCMU courses
History 235, 245, 246, 272, 346, 371
Political Science 277
Religion 354, 355
STCH 203, 204, 210
Approved interim courses

Astronomy

Professors L. Molnar, S. Steenwyk (chair)
Associate Professor D. Haarsma

Students interested in a career in astronomy or astrophysics should major in physics, minor in astronomy, and plan their program with D. Haarsma or L. Molnar. The local and remote telescopes and cameras of the Calvin Observatory are available for student use through the director of the observatory, L. Molnar.

The Physical World core requirement may be met by Astronomy 110, 111, 112, 211, or 212.

ASTRONOMY MINOR

At least 21 hours, including:
Physics 133 or approved Astronomy interim
Physics 134
Physics 246
Astronomy 211
Astronomy 212
Astronomy 384 or 395

Students pursuing a Physics Major and Astronomy Minor must follow college guidelines for overlap between a major and a minor; this is facilitated by the option in the Physics Major of substituting upper-level courses for introductory ones.

HONORS

The requirements for graduation with honors in astronomy are:

1. Minimum cumulative GPA of 3.3 and total of six honors courses (18 hours minimum) overall, including two honors courses outside the major;
2. At least three honors courses (of 3 or more semester hours each) in physics or astronomy; at least one of the three must be an advanced theory course from 335-376, excluding 347 and 359;
3. Cumulative GPA of at least 3.3 in physics, astronomy, and mathematics collectively;
4. Completion of an approved physics major, with at least 40 semester hours of physics or the secondary education physics major;
5. Regular participation in the departmental seminar program; and
6. Successful completion of a departmentally approved research project in physics or astronomy (typically through summer research) and Physics or Astronomy 395.

To obtain honors credit in any physics or astronomy course, a student can make a contract with the course instructor regarding a special project. Alternatively, a student in an Introductory level physics course up through Physics 235 or in a 100 - 200 level astronomy course may earn honors in that course by concurrently taking the seminar course, Physics 195, and completing its requirements. A student must earn a grade of "B" or better in a course to receive honors designation for that course.

COURSES

110 **Planets, Stars, and Galaxies** (4). F and S. A survey of the major astronomical objects, including planets, stars, and galaxies; a study of their characteristics and their organization into a dynamic, structured universe; an investigation of the processes now occurring in the universe and the methods used to study them; a presentation of the history and development of the universe. The course examines scientific perspectives on the natural world, various relationships between science and culture, the role of Christianity in the development of science, and relationships between Christianity and current scientific findings. Not open to students who have taken, or wish to take, Astronomy 111 or 112. Students who meet the prerequisites of Astronomy 211 or 212 are encouraged to take one of those courses instead. Laboratory. Prerequisites: Interdisciplinary W50/150 or sophomore standing.

111 **The Solar System** (4). S. This course is similar to Astronomy 110 in providing an introduction to astronomy from a Christian perspective, but emphasizes the contents of our solar system (ranging from planets and satellites down to meteorites and dust), their interrelatedness, and their development over time. Not open to students who have taken Astronomy 110, but open to students who have taken or plan to take Astronomy 112. Students who meet the prerequisites of Astronomy 211 or 212 are encouraged to take one of those courses instead. Laboratory. Prerequisites: IDIS 150 or sophomore standing. Not offered 2007-2008.

112 **Stars, Galaxies, and the Universe** (4). F. This course is similar to Astronomy 110 in providing an introduction to astronomy from a Christian perspective, but emphasizes objects beyond our solar system (including stars, black holes, and galaxies), their function and development, and how they fit into the structure and development of the universe as a whole. Not open to students who have taken Astronomy 110, but open to students who have taken or plan to take Astronomy 111. Students who meet the prerequisites of Astronomy 211 or 212 are encouraged to take one of these courses instead. Laboratory. Prerequisites: Interdisciplinary W50/150 or sophomore standing.

211 **Planetary and Stellar Astronomy** (4). S, alternate years. This course is an introduction to modern astronomy and astrophysics for students with some science and mathematics preparation. The first portion of the course includes a study of the planets and other objects in the solar system, including their physical processes and development and the formation of the solar system as a whole. The second portion of the course emphasizes the physical structure of stars, their origin and development, and their end results (white dwarfs, neutron stars, black holes). Students may take both Astronomy 211 and 212, but one is not a prerequisite for the other. Laboratory. Prerequisites: One course in college calculus (such as Mathematics 132 or 161) and one course in high school or college physics, or permission of the instructor.

212 **Galactic Astronomy and Cosmology** (4). S, alternate years. This course is an introduction to modern astronomy and astrophysics for students with some science and mathematics preparation. The first portion of the course includes a study of our own Galaxy, its structure, its contents (including the interstellar medium and dark matter), and its formation and development. The second portion of the course covers other galaxies, including their classification, clustering, and development, as well as active galaxies and quasars. The final portion of the course covers physical cosmology, including expansion of the universe, its age and ultimate fate, and the formation of elements. Students may take both Astronomy 211 and 212, but one is not a prerequisite for the other. Laboratory. Prerequisites: One course in college calculus (such as Mathematics 132 or 161) and one course in high school or college physics, or permission of the instructor. Not offered 2007-2008.

384 **Modern Observational Astronomy** (2). S, alternate years. Students will learn techniques of modern observational astronomy by doing observing projects in each of three wavelength regimes: optical, radio, and one other (e.g., X-ray). Optical observations will use CCD detectors to do multi-color photography, photometry, astrometry, and spectroscopy. Radio observations made with the Very Large Array will be used for interferometric imaging. NASA archival data will be used for other wavelengths. Prerequisite: Concurrent registration in or completion of Astronomy 211 or 212.

390 **Independent Study**. F, I, and S. Independent readings and research in astronomy. Prerequisite: Permission of the chair.

395 **Astronomy Research, Writing, and Presentation** (0-3). * F, I, and S. Completion of an approved experimental or theoretical research with presentation of results. The research may be done entirely as part of this course or through another avenue (e.g., summer research with a faculty member). Normally, each student is required to submit a formal, written report and to present results in a department seminar and/or poster presentation. This course may be taken up to three times. Prerequisites: A faculty sponsor and approval of the department.

Biochemistry

See the Department of Chemistry and Biochemistry for a description of the biochemistry major and specific biochemistry courses.

Biology

Professors C. Blankespoor, H. Bouma, D. DeHeer (chair), R. Nyhof, P. Tigchelaar, J. Ubels, R. Van Dragt, U. Zylstra
Associate Professors J. Bonnema, D. Dornbos, K. Grasman, A. Hoogewerf, D. Koetje, † S. Matheson, D. Warners
Assistant Professors R. DeJong, A. Shen, J. Wertz, A. Wilstermann
Adjunct Professor H. Quemada

We study biology in response to our Creator's call to investigate the diversity, organization, and functioning of the living world and to provide a Christian model for its study, care, and keeping. Whether our faculty and students study the biological mechanisms by which cells communicate, the flow of water and ions through roots and stems, the foraging behavior of voles, the interactions within ecosystems, or the ethical dilemmas occasioned by technology and discovery, we seek to understand the mechanisms and meaning of life. Graduates of our program are well equipped to pursue many different vocations, engaging God's world as health care providers, professors, teachers, researchers, biotechnologists, or ecologists.

Our department offers courses and programs for students interested in careers as a biologist, for students intending to pursue post-baccalaureate education, e.g., graduate, medical, dental, or other professional training, and for those interested in teaching at the elementary or secondary school levels. To do this the department offers three majors, Biology, Biotechnology, and Secondary Education Biology plus a concentration for Environmental Science majors, as well as core and pre-professional courses.

Students seeking general college core credit in Biology typically enroll in General Biology (Biology 111), Life Science for Elementary School Teachers (Biology 112), or Human Biology (Biology 115).

The pre-professional courses in Anatomy (Biology 205), Physiology (Biology 206), and Microbiology (Biology 207) serve pre-nursing students as well as non-majors planning a career in medicine or an allied health field.

Biology and Biotechnology majors engage fundamental biological concepts in the three biology introductory courses: Cell Biology (Biology 141), Animal Biology (Biology 242), and Plant Biology (Biology 243). Thereafter, majors enroll in upper-level (3XX) elective courses covering such topics as Genetics, Immunology, Cell and Tissue Culture, Evolution, Ecosystem Management, Plant Physiology, and Animal Behavior. All majors perform independent research by completing internships, working directly with faculty in a research laboratory or field setting, or by completing an Investigations (35X) course. To culminate their studies, students explore complex contemporary issues in a senior capstone course.

BIOLOGY MAJOR

Biology 141
Biology 242 (or 205 and 206)
Biology 243
Four from Biology 3XX, three of which must have laboratory components (may include one approved interim)
One course from Biology 35X, 385, or 399
Biology 394, 395, or 396
Biology 295 (taken twice)

Cognates

Chemistry 103-104, 253 or 261
One course from Chemistry 201, 262, 271/281, 323/383, or Geology 151
Mathematics 132-143, or 161-162, or Physics 221-222

BIOLOGY MINOR

Biology 141
Biology 242
Biology 243
Three from Biology 3XX (may include an approved interim)

BIOTECHNOLOGY MAJOR

Biology 141
Biology 242
Biology 243
Biology 324
BIology 325
Biology 334
Biology 383
one additional Biology 3XX course
Biology 356 or an advisor-approved research course focusing on DNA, RNA, and/or proteins
Biology 394
Biology 295 (taken twice)

Cognates

Chemistry 103-104, 253 or 261-262, 323
Mathematics 132 (or 161) and 143
Two courses from Information Systems 141, 151, 153, or 171 (IS 141 and 171 are recommended)

BIOTECHNOLOGY MINOR

Biology 325
Biology 334
One from Biology 354, 356, 385, or 399, as approved by the biotechnology advisor (D. Koetje)
At least one from Biology 141, 242, 243, 321, 324, 331, 332, 333, 335, 336, or 364
Chemistry 253 or 261
One additional 200- or 300-level Chemistry course

The biotechnology minor is designed to complement a major concentration in Chemical Engineering, Chemistry, Biochemistry, or Biology. To satisfy overlap rules, Biochemistry majors and Chemistry majors should take two courses from Biology 141, 242, 243, 321, 324, 331, 332, 333, 335, 336 or 364. Biology majors must take one 300 level Biology course in addition to the four 300-level Biology courses required in their major. Engineering majors, and other majors not requiring Biology cognate courses, can satisfy this requirement by taking Biology 141.

SECONDARY EDUCATION BIOLOGY MAJOR

Biology 141
Biology 242
Biology 243
Four courses from the following two groups with at least one course from each group: Group 1: Biology 311, 313, 323, 331, 332, 338, 341, 344, 345, 346, 364 and approved ASI courses. Group II: Biology 321, 324, 333, 334, 335, 336
Biology 357
Biology 395
Biology 295 (taken twice)

Cognates

Chemistry 103-104, 253 or 261 one course from Chemistry 201, 262, 271/281, 323/383, or Geology 151
SCES 214
Mathematics 143-132 or Mathematics 161-162 or Physics 221-222

Prospective secondary teachers should complete Biology 357 (Investigations in Biology for Teachers) as part of the normal program of concentration. Programs of concentration should be prepared on the basis of current guidelines established by the National Science Teachers Association. The NSTA guidelines recommend study in zoology, botany, physiology, genetics, ecology, microbiology, cell biology/biochemistry, and evolution. A minor in physical science is recommended, and this minor may be constituted of selected cognates. Directed teaching in biology is available only during the spring semester. Prior to the teaching internship, students must have the approval of the department. Criteria for approval are found in the *Teacher Education Program Guidebook*, available in the Education Department. The advisor for biology teaching major and minor programs is C. Blankespoor.

ENVIRONMENTAL SCIENCE MAJOR - BIOLOGY EMPHASIS

Biology 141
Biology 242
Biology 243
Biology 345
Two from Biology 336, 341, 344, 346, or approved 300-level courses
Chemistry 103 and 104
Chemistry 253 or 261
Chemistry 271 and 281
Geology 151
Geology 311
Geology 312

Cognates
Environmental Studies 210
Environmental Studies 302
Environmental Studies 395
Mathematics 132-143 or Mathematics 161-162 and 243

For additional information see Environmental Science, Environmental Studies program

SECONDARY EDUCATION BIOLOGY MINOR

Biology 141, 242, and 243
Biology 357
Two advisor-approved electives, at least one of which must be a 300-level course

Cognate
SCES 214

ELEMENTARY AND SECONDARY INTEGRATED SCIENCE STUDIES

Students in an Elementary or Secondary Education Program wishing to major or minor in science should consult the Science Education section of the catalog.

RECOMMENDED COGNATES

Chemistry courses should be completed by the end of the second year of the program. Computer science is also recommended. These cognates are minimum requirements. Students planning to do graduate work in cell and molecular biology are advised to complete both the physics and mathematics cognates and organic chemistry. Those planning careers in environmental biology should consider the Environmental Science major. Other environmental courses in biology, geology, and natural resources are offered at the AuSable Institute of Environmental Studies in Mancelona, Michigan. Information on AuSable courses is available from the AuSable advisor, D. Warners.

HONORS

To graduate with honors in the Biology Department, the student in satisfying the college honors program must complete three biology courses with honors, submit an honors thesis, and earn a minimum 3.5 GPA in the major. Of the required biology courses, one will normally be the honors section of Biology 141 or 242. (Both of these courses may be taken but only one applied to the honors program.) The second honors course will be taken from those courses numbered Biology 300-349; the details of which will be worked out by the student and instructor at the time that the student registers for the course. The third course requirement is the completion with honors of an independent research project (Biology 399) or investigations course (Biology 354-357). Normally the investigative research conducted in one of these courses will be reported in the form of a scientific research paper, which will constitute the honors thesis, and as a public presentation to a scientific audience. In addition to courses taken for honors credit, students in the honors program will enroll in the department seminar course (Biology 295) for a minimum of three semesters. Honors advisor is D. DeHeer.

GROUP MAJORS

A group major in science and mathematics meets the needs of some students, particularly those in professional programs, such as physical therapy and physician assistant. These majors, however, are not appropriate for students planning to attend medical school or graduate school in biology. Group majors require a minimum of twelve courses in natural science and mathematics, ten of which must be from **two** disciplines with a minimum of four courses from each. The remaining two cognates must be chosen from a third discipline. At least two 300-level courses in one discipline must be included in the ten-course component of this group. Biology 395/396 or equivalent is required. The chairs of the departments involved must approve each program.

Prerequisite to a program of concentration in biology is a minimum average of "C" (2.0) in Biology 141, 242, and 243 or approved equivalent courses. The core requirement in biology is normally met by Biology 111, 112, or 115. In some cases Biology 141 may be appropriate.

COURSES

General College Courses

111 **Biological Science** (4). F, S and SS. This course is a study of the biological concepts of ecology, genetics, and evolution and their contribution to an understanding of the nature of living systems within the framework of a biblical worldview. An emphasis is placed on the application of these concepts to some important contemporary issues, such as environmental stewardship and genetic engineering. Laboratory.

112 **Life Science for Elementary School Teachers** (4). F and S. This course is designed for students in the elementary education program. In this course students use life science concepts in an inquiry-based approach to build a biological knowledge base that is appropriate to the elementary school classroom. The course covers topics in life sciences that are recommended as teaching objectives in elementary education. These include activities studying cells, classification of living organisms, reproduction and heredity, evolution, and how life forms coexist interdependently within ecosystems. Throughout the course a perspective of respect for God's creation and Christian stewardship of the creation is presented as the purpose for investigating and learning to understand life on earth. Laboratory.

115 **Human Biology** (4). F, S and SS. This is a study of the major theories of biology as applied to humans. The student is introduced to the concepts of cell, genetics, ecology, and evolution through the study of the anatomy, physiology, and development of the human body and health. Students apply these concepts to contemporary issues in human biology, society, and the environment. The laboratory utilizes methods of biological investigation, with an emphasis on human anatomy and physiology. Laboratory. Also listed as Health 115.

The following interdisciplinary course may be included in concentrations in this department:

IDIS 210 **History of Science** (3).

Pre-Professional Courses

These courses are intended for non-biology majors who are pursuing pre-nursing or other pre-professional, especially pre-health care, programs.

205 **Human Anatomy** (4). F, S, and SS. A study of the structure of human organ systems, including some developmental anatomy and histology. The laboratory will emphasize human anatomy and will include dissection of a cat as a representative mammal and some study of histology.

206 **Human Physiology** (4). F, S, and S. An introduction to the physiology of the human being. Functions of the major organ systems are studied, including the circulatory, respiratory, excretory, muscloskeletal, nervous, reproductive, gastrointestinal, and endocrine systems. The laboratory introduces basic physiological techniques in an investigative setting. Prerequisites: Biology 242 or 205, Chemistry 115, 253, or equivalent.

207 **Medical Microbiology** (4). F and S. A study of microorganisms and their activities. Topics include microbial cell structure and function, metabolism, microbial genetics, viruses, and the role of microorganisms in disease, immunity, and other applied areas. Three hours of lecture and two laboratory periods per week. Prerequisite: Biology 141 and Chemistry 115, 253, or equivalent.

Program of Concentration Courses
Basic Courses

141 **Cell Biology and Genetics** (4). F and S. This course studies the structures, functions, and evolution of prokaryotic and eukaryotic cells at the molecular, subcellular, and cellular level. Fundamental concepts of genetics are studied including Mendelian genetics and molecular genetics. The course introduces basic historical, philosophical, and biblical frameworks for the study of biology. Applications of course concepts to contemporary issues in biology are considered. The laboratory consists of investigations in molecular biology, cell biology, and genetics. Corequisite or prerequisite: Chemistry 103 or 115.

242 **Animal Biology** (4). S. An introduction to the biology and diversity of select groups of animals and protists. Topics include taxonomic diversity, structure, and function at

the organ and tissue level, and population biology and evolution. Emphasis is placed on considering these topics in an environmental context. Lecture and laboratory. Prerequisite: Biology 141.

243 **Plant Biology** (4). F. An introduction to plant biology that includes a consideration of the structure, function, and development of plants as organisms, a consideration of the relationships of plants to each other and the other organisms in a study of selected communities within biomes, and consideration of basic ecosystem approaches, and topics in the diversity of algae, fungi, and plants. Lecture and laboratory. Prerequisite: Biology 141.

Advanced Courses

311S **Field Botany** (4). SS. Taxonomy and ecology of vascular plants as components of natural communities. On site examination of plants in bogs, dunes, marshes, meadows, forests, and swamps. Assigned readings, field trips, and laboratory. Offered as a summer course at AuSable Institute of Environmental Studies located near Mancelona, Michigan. Prerequisite: Biology 243, or an introductory botany course.

313 **Paleontology** (4). * S, alternate years. A study of the organisms that once lived on the Earth. Includes an examination of the processes of fossilization and methods of discovering the structure, habitat, and relationship of those organisms, and a review of their distribution and life history. A broad spectrum of organisms is studied with emphasis on invertebrate animals. Laboratory, field trip. Also listed as Geology 313. Prerequisite: Geology 152 or Biology 242 and 243.

321 **Genetics and Development** (4). * F. A study of modern concepts of the gene and the analysis of progressive acquisition of specialized structures and functions by organisms and their components. The laboratory includes study of genetic and developmental phenomena of selected organisms. Lectures and laboratory. Prerequisites: Biology 242 and Chemistry 115, 253, or 261.

323 **Comparative Vertebrate Anatomy** (4). * S. A comparative study of vertebrate structure and of the functional significance of these structural variations. Lectures and laboratory. Credit cannot be applied toward a biology major for both Biology 205 and 323. Prerequisite: Biology 242.

324 **Molecular Biology** (4). * S. A study of photosynthesis, biosynthesis of macromolecular precursors, the chemistry of the storage, transmission, and expression of genetic information, biochemical dimensions of selected physiological processes, and philosophical and ethical issues related to biochemistry and molecular biology. Lectures and laboratory (Biology 383). Also listed as Chemistry 324. Prerequisite: Chemistry 323.

325 **Biotechnology** (4). S. A study of basic and advanced methodologies, current applications, and contemporary Issues In biotechnology. Theoretical and practical aspects of DNA cloning, recombination, transformation, blotting, genomics, and proteomics are taught within the context of medical, agricultural, environmental, legal, and Industrial applications. Reading assignments and discussions explore Christian and secular perspectives of biotechnology regulation, patenting, and other social concerns. Laboratory exercises facilitate development of basic lab skills (maintenance of notebooks, routine calculations, preparation of reagents and materials, and safety). Lectures and laboratories. Prerequisites: Biology 141, Chemistry 253 or 261.

331 **Comparative Animal Physiology** (4). * S. A study of animal physiology using a cellular and comparative approach. Topics include membrane transport, nerve function, sensory mechanisms, muscle contraction, hormone action, ion and osmotic regulation, temperature relations, metabolism and circulation. Lectures and laboratory. Credit cannot be applied toward a biology major for both Biology 206 and 331. Prerequisites: Biology 242 or 205; Chemistry 115, 253, or 261.

332 **Plant Physiology** (4). * S, alternate years. A study of form and function in plants as whole organisms. Course topics include photosynthesis and productivity, physiological and developmental responses to environmental cues, mineral nutrition, and water and solute transport. Lectures and laboratory. Prerequisites: Biology 243; Chemistry 115, 253, or 261. Not offered in 2007-2008.

333 **Immunology and Hematology** (4). * A study of immunology including the compo-

nents and functions of the innate and adaptive immune systems. Immunodysfunction, immunologic diseases, and abnormalities of the hematologic systems also are considered. Hematologic concepts and practices are addressed in laboratory sessions. Lectures and laboratory. Prerequisites: Biology 206 or 242, and Chemistry 115, 253, or 261.

334 **Cell and Tissue Culture** (4). * F. A study of the biology, methodology, and applications of in vitro cultures of animal and plant cells. Lectures and laboratory. Prerequisites: Biology 141, Chemistry 253 or 261.

335 **Cell Physiology** (4). * F, alternate years. A study of the function of animal cells with emphasis on events occurring outside the nucleus. Major emphases include the structure of the cell membrane, functions and interrelationships of membrane transporters and ion channels, synthesis of proteins and targeting of vesicles through the secretory pathway, structure and function of cell surface receptors and their interactions with intracellular signaling pathways, mechanisms of cell motility, and interactions of cells with the extracellular matrix. Concepts will be discussed in the context of historical development, examination of experimental evidence and relationship to the function of tissues and organs. Lectures, problem-based discussions of the primary literature, laboratory. Prerequisites: Biology 242, Chemistry 253 or 261.

336 **General Microbiology** (4). * F. A study of the structure and function of microorganisms, including a consideration of their role in food production and spoilage, biogeochemical cycles and environmental quality, and as tools in genetic engineering. Lectures and laboratory. Prerequisites: Biology 242, 243, or 206; Chemistry 115, 253, or 261.

338 **Animal Behavior** (4). * S, alternate years. A study of the mechanisms and adaptive significance underlying the behavior of animals. Topics include natural and sexual selection, behavioral ecology, social behavior, orientation and navigation, animal communication, and chemical ecology. Lectures and laboratory. Prerequisites: Biology 242 and 243. Not offered in 2007-2008.

341 **Entomology** (4). * F, alternate years. Study of the biology of insects with emphasis on systematics. Lectures, laboratory, and field trips. Prerequisites: Biology 242 and 243.

344 **Vertebrate Biology** (4). * S, alternate years. Study of the ecology and evolution of fish, amphibians, reptiles, birds, and mammals. Lectures and laboratory. Prerequisite: Biology 242.

345 **Ecosystem Ecology and Management** (4). * F. Detailed study of ecosystem structure and function, with special emphasis on local ecosystems, and the scientific basis for managing and restoring ecosystems. Lectures and laboratory. Prerequisites: Biology 242 and 243.

346 **Plant Taxonomy** (4). * F, alternate years. Identification, nomenclature, and classification of vascular plants. Lectures, laboratories, and field trips. Prerequisite: Biology 243.

364 **Global Health, Environment, and Sustainability** (3). * F. Global health and food matters are best understood within their biological, ecological, and socio-economic contexts. This course explores how processes in these contexts contribute to health and disease, especially as they pertain to international and community development. Globalization presents opportunities and challenges for health and food security and for ecosystem integrity. Development models that enhance these by strengthening human-environment interconnectedness, using responsible technologies, and developing just policies are upheld as exemplars. Prerequisite: Living World core

383 **Laboratory in Biochemistry** (1). * F and S. A laboratory course designed to teach students modern biochemical separation and analytical techniques. Included in this course are the following topics: Exclusion, ion-exchange, affinity, and high performance liquid chromatography, agarose gel and polyacrylamide gel electrophoresis, ultracentrifugation, ultraviolet/visible spectroscopy, enzyme kinetics, and recombinant DNA techniques. Students will be required to carry out individual projects involving the purification and analysis of a biological macromolecule from cells or tissue. Also listed as Chemistry 383. Prerequisite or corequisite: Chemistry 323.

Research and Practicum Courses

Prerequisites for all investigative courses include the three basic courses in the program of concentration. **Because of enrollment limits, instructor permission must be received before registration.**

290 **Directed Research** (1-3). F, I, and S. The student enrolling in this course will be involved in laboratory or library research on a project currently being studied by one or more staff members. Application forms are available from the department office and admission will be determined by the chair and the faculty member directing the project.

354 **Investigations in Ecotoxicology** (4). * F, alternate years. Field and laboratory studies examining the impacts of environmental pollutants on animals. Interpretation of scientific literature, study design, and the collection, analysis, and presentation of data will be emphasized. Students will develop and conduct individual research projects on the effects of toxic chemicals on the ecological, organismic, and (or) cellular levels. Prerequisites: Biology 242 and permission of the instructor. Not offered in 2007-2008.

354 **Investigations in Plant Ecology** (4). *F. Field, laboratory and greenhouse studies in plant population and community ecology. Emphasis will be given to the development of research questions, how experiments are designed, and how data are collected, analyzed and presented. Topics will include regeneration, competition, coexistence, pollination, distribution, diversity and conservation. Students will develop their own research projects and analyze and present results from their work. Prerequisites: Biology 243 and permission of instructor.

354 **Investigations in Genetics**. (4).*S, alternate years. Laboratory study of eukaryotic DNA replication and mitosis. Students will use mutant yeast strains to conduct independent projects on the yeast cell division cycle. In the process students will learn a variety of laboratory techniques to analyze suppressors of a yeast cell cycle mutant that cannot properly replicate its DNA. In addition to conducting individual and group research, students will read and discuss original literature, write literature and research summaries, and prepare a final presentation based on their projects. Prerequisites: Biology 242 and 243 and permission of instructor. Not offered in 2007-2008.

354 **Investigations in Physiological Ecology** (4). * S, alternate years. A directed investigations course in which students employ laboratory, greenhouse, growth chamber, and/or field studies to address an issue of physiological ecology. Activities will span the conception of a testable research question, development of a research plan and experimental design, collection and analysis of data, and presentation of results. Research topics could include assessment of competitive advantage (allelopathy, soil factors), pesticide efficacy, gas exchange, light or water use efficiency of invasive and native plants. Prerequisites: Biology 242 and 243, Chemistry 104, and permission of the instructor.

354 **Investigations in Microbiology**. (4). * S, alternate years. Directed investigations in the fascinating world of microorganisms. Microorganisms are abundant and diverse and they interact with other organisms and their environments with surprising complexity and profound impact. In this course, students will use techniques to culture and identify microorganisms, to investigate their interaction with other cells and organisms, and to understand their regulation at a molecular level. These techniques will include various bacterial culture methods, microscopy, assays for antibacterial activity, assays for biofilm formation, flow cytometry, DNA isolation and sequencing, and gene expression studies. Emphasis will be given to experimental design and the collection, analysis, and presentation of data. After initial exercises designed to introduce students to the variety of techniques and topics, students will read relevant scientific literature, develop their own research projects, and present the results of their work in written, poster, and oral presentations. Prerequisite: permission of the instructor.

354 **Investigations in Inflammation** (4). Not offered 2007-2008.

354 **Investigations in Restoration Ecology** (4). * Not offered in 2007-2008.

354 **Investigations in Developmental Cell Biology**.* Not offered 2007-2008.

356 **Investigations in DNA Technology** (4). S. A directed investigations course in which students employ molecular biology methods to characterize DNA clones from gene libraries, analyze the expression patterns of these clones, sequence them, use bioinformatics to characterize putative gene products, and design primers for realtime RT-PCR gene expression analysis. Course projects culminate in multimedia or poster presentations of results. Two labs per week. Prerequisites: Biology 141, Chemistry 253, or 261. Recommended: Biology 256.

357 **Investigations in Biology for Teachers** (4). * F. This course, intended for biology majors and minors in the education program, is designed to train students in the use of laboratory for investigating and understanding the content of biology. Typically, all students study topics in plant and animal genetics, physiology, behavior, anatomy, and ecology. Individually, students select a content area for further exploration. Students instruct each other through investigations designed to guide their discovery and understanding of biological concepts. In doing so, students model the investigative process that builds and critiques the content base of biology. Students use computers for data collection, analysis, and presentation. A final presentation of independent research in a selected content area is required. Prerequisites: Biology 242, 243, and permission of the instructor.

359 **Seminar in Secondary Teaching of Biology** (3). S. A course in perspectives on, principles of, and practices in the teaching of biology on the secondary level. This course should be taken concurrently with Education 346. The seminar provides a forum for the discussion of concerns that develop during directed teaching. This course is part of the professional education program and may not be included in the major or minor in biology.

385 **Internship in Biology** (0-4). F, I, S, and SS. This course is an off-campus internship that emphasizes professional application of the concepts and principles learned as part of a Biology program. A student has responsibilities in a private firm, office, laboratory, a not-for-profit organization, or a government agency. The intern works on a specific project under the direct supervision of an employer-supervisor and a faculty internship coordinator. The intern will meet with the faculty coordinator, will maintain a journal, and must present an oral or written report summarizing the internship experience. The off-campus employer-supervisor will complete an evaluation report on the work of the intern. With faculty approval, this course may satisfy the investigations requirement in the biology major or biotechnology minor. Only one Biology 385, 390, or 399 course may be used to satisfy the requirements for the biology major or biotechnology minor. Prerequisites: At least sophomore standing in Biology, a cumulative GPA of 2.0 or better, an average GPA of 2.0 or better in all credited science and mathematics courses, and approval by both the department and the off-campus employer.

390 **Independent Study** (1-4). F, I, S, and SS. This course provides the opportunity for a student to conduct library research, or under the direction of a faculty member, to study a subject not currently offered in the biology curriculum. Permission to enroll must be obtained from the department chair and the faculty member directing the project. Requirements will be determined by the supervising faculty member. Only one Biology 390 or 399 course may be used to satisfy the requirements of the biology major.

399 **Undergraduate Research** (3-4). F, I, S, and SS. Students enrolling in this course will conduct laboratory or field research under the supervision of a faculty member. The project may be part of an ongoing research program of the supervising faculty member. A written thesis on the project will be required, as well as presentation of a poster or seminar to the department. Permission to enroll must be obtained from the department chair and the faculty member directing the project, and with their permission, this course may fulfill the requirement for an Investigations course in the biology major. Only four credit hours of Biology 390 or 399 course may be used to satisfy the requirements of the biology major. Prerequisites: Biology 242 and 243.

Seminar Courses

295 **Biology Seminar**. F and S. No credit. Various topics in biology and related disciplines are presented by visiting speakers, faculty, and students. During the junior and

senior year, majors must attend two of the four semesters; freshman and sophomore students are encouraged to attend. Majors intending to graduate with honors must attend three of the four semesters in their junior and senior years.

394 **Perspectives in Biotechnology** (3). I. This course explores, within a reformed Christian framework, the historical and philosophical perspectives pertaining to the science and practice of biotechnology. Students explore the underlying assumptions of current biotechnology research as well as its social, ethical, and legal implications. They address governmental regulations affecting laboratory safety, biohazards, and containment of genetically modified organisms and patenting. Prerequisites: Senior status in the biotechnology program of concentration, Biblical Foundations I or Theological Foundations I, Developing a Christian Mind, and Philosophical Foundations.

395 **Perspectives in Biology** (3). F. This course examines ways in which biology has developed through conceptual and technological innovations, ways in which worldviews have informed biological concepts, the inherent limitations of the scientific enterprise, and philosophic viewpoints held by contemporary biologists. The course will also examine how a biblically informed worldview contributes to an understanding of living systems and to the application of such understanding to societal issues, such as environmental sustainability and appropriate uses of biotechnology. Prerequisites: Senior status in the biology major program, Biblical Foundations I or Theological Foundations I, Developing a Christian Mind, and Philosophical Foundations.

396 **Perspectives in Medicine** (3). * F. This course is a critical study of the historical and philosophical perspectives pertaining to the science and practice of medicine with particular emphasis on the methodology, results, and implications of current medical research. Students study the medical literature towards a critical analysis of selected representative societal and ethical issues in medicine. Prerequisites: Senior status in biology or biochemistry program or permission of the instructor, Biblical Foundations I or Theological Foundations I, Developing a Christian Mind, and Philosophical Foundations.

Graduate Courses

590 **Independent Study**. * F, I, and S.

Business

Professors D. Cook (chair), R. Slager
Associate Professors R. Eames, R. Medema, A. Mpesha, D. Reynolds, L. Van Drunen
Assistant Professors M. Edgell, S. Van Oostenbrugge, J. Voskuil

The department has structured its major areas of study so that students may design programs that best prepare them for their chosen career fields. It offers four majors leading to a Bachelor of Arts degree — business, a group concentration in business and communication, a group concentration in the social sciences, and a group concentration involving mathematics and business. Group concentrations must form a coherent, planned program approved by an advisor. The department offers programs leading to a Bachelor of Science in Accountancy or a Bachelor of Science in Public Accountancy. The department also participates with computer science in offering a major in information systems. The department offers a minor in business.

Only one interim course may serve as an elective for any major or minor in the department, and only if the interim course is designated as an elective by the department. The department offers a variety of experiential learning options that can be integrated into any of the department's majors.

BUSINESS MAJOR

Business 160
Business 203
Business 204
Business 360
Business 363
Business 370
Business 380
Business 367 or 396
Economics 200 (1 hour)
Economics 221
Economics 222
One from Economics 323-326
Two from Business or Economics electives

Cognates
Mathematics 143, 243, or 343
Mathematics 201
Information Systems 171 (1 hour)

BUSINESS MINOR

Business 160
Business 203
Economics 221
Economics 222
Two Business electives

ACCOUNTING MAJOR (BSA)

Business 160
Business 203
Business 204
Business 215
Business 301
Business 302
Business 305
Three from Business 306, 310, 311, or 315
Business 350
Business 360
Business 370
Business 380
Two from Business 363, 367 or 396 and Economics 323-339 (may only take one from Business 367 or 396)
Economics 200 (1 hour)
Economics 221
Economics 222

ACCOUNTING MAJOR (BSPA)

A total of 150 hours
Includes all of the courses listed for the BSA plus:
All four from Business 306, 310, 311 and 315
Business 307
Three from Business 363, 367 or 396 and Economics 323-339 (may only take one from Business 367 or 396)

BUSINESS/CAS GROUP MAJOR

Business 160
Business 203
Business 380
Economics 221
Economics 222
One from Business 365, 381, or 382
One 300 level Business or Economics elective
CAS 140
CAS 352
One from CAS 101 or 240
Two from CAS 253, 260, 285, 305, 354, and 399
One from CAS 200, 248, or English 262

Cognates
Mathematics 143, 243, or 343
Information Systems 171
One from Information Systems 151, 153, 221, 141, 271
or Computer Science 104, 108 or 112

SOCIAL SCIENCE GROUP MAJOR - BUSINESS EMPHASIS

Business 160
Business 203
Business 380
Economics 221
Economics 222
One from Economics 323-343 or an approved interim
Four courses from one of the social sciences (sociology, psychology, political science or history)
Two department electives

Cognates
Mathematics 143, 243 or 343
Information Systems 171
One from Information Systems 151, 153, 221, 141, 271 or Computer Science 104, 108 or 112

BACHELOR OF ARTS IN BUSINESS PROGRAM

The business major provides a thorough understanding of business and the context in which it operates. The business curriculum is designed to progressively develop the knowledge and skills relevant to contemporary business. Students desiring to develop additional depth in a business specialty such as marketing, human resource management, or finance are encouraged to consult with their departmental advisor.

A model program for the Bachelor of Arts in Business is:

First year	*Semester Hours*
Foreign Language 101 and 102	8
English 101	3
History 151 or 152	4
Mathematics 143	4
Persons in Community (Psychology 151, Political Science 110 or Philosophy 221)	3
Information Systems 171	1
Biblical/Theological Foundations I (Religion 121 or 131)	3
Business 160	3
Interim (IDIS 150)	3
Prelude (IDIS 149)	1
Foundations of Information Technology (IDIS 110)	1
Second year	*Semester Hours*
Foreign Language 201 and 202	8
Business 203 and 204	7
Economics 200, 221 and 222	8
Mathematics 201	4
Philosophy 153	3
Interim elective	3
Third year	
Business 360, 363, 370, and 380	12
Economics 323 or 324 or 325 or 326	4
Literature	3
Rhetoric in Culture	3
Biblical/Theological Foundations II	3
Interim elective	3
Health and Fitness	2
Fourth year	
Business 367 or 396	3
Departmental Electives	6
Global and Historical Studies	3
Physical World	4
Living World	4
The Arts	3
Cross cultural engagement	1
Open Elective	3
Health and Fitness	1

BACHELOR OF SCIENCE IN ACCOUNTANCY (B.S.A.)

The Bachelor of Science in Accountancy degree is intended for students who want to prepare for a career in accounting in the context of a Christian liberal arts education. The program requires 56 credit hours in the Departments of Business and Economics and a modified core.

This program is designed for students who are interested in a career in accounting other than public accounting (CPA). Those students interested in public accounting should refer to the next section of the catalog (Bachelor of Science in Public Accountancy). Students who enroll in this four-year program find positions in banking, industry and not-for-profit institutions.

Students qualifying in accounting with this degree and desiring to include an internship (experiential learning) should work out this program with a faculty advisor.

In addition to the specified courses from the Departments of Business and Economics, the student must complete a modified core. All core categories must be met by this degree with the exception of one year in a foreign language and one of the courses in Religion.

A model program for the Bachelor of Science in Accountancy is:

First year	*Semester Hours*
English 101	3
History 151 or 152	4
Mathematics 143 (or alternative mathematics cognate)	4
Philosophy 153	3
Information Systems (IS 171)	1
Religion (either Religion 121 or 131)	3
Business 160	3
Interim (IDIS 150)	3
Prelude (IDIS 149)	1
Foundations of Information Technology (IDIS 110)	1
Physical World	4
Persons in Community (Philosophy 221, Political Science 110 or Psychology 151)	3
Second year	
Business 203, 204, and 215	9
Economics 200, 221 and 222	8
Literature	3
Living World	4
Rhetoric in Culture	3
Interim elective	3
Mathematics 201	4
Health and Fitness	1
Third year	
Business 301, 302, 305, 370 and 380	18
Business 360	3
One from Economics 323-339 or Business 363 or 367 or 369	3
Elective	3
Interim elective	3
Global and Historical studies	3
Health and Fitness	1
Fourth year	
Three from Business 306, 310, 311 and 315	12
Business 350	3
One from Economics 323-339 or Business 363 or 367 or 369	3
The Arts	3
Elective	3
Cross cultural engagement	1
Health and fitness	1

(As part of the major either Business 367 or 396 may be taken but not both)

BACHELOR OF SCIENCE IN PUBLIC ACCOUNTANCY (BSPA) PROGRAM

The BSPA (a five year program) is designed to meet the 150 hours education requirement adopted by Michigan and most other states for CPAs. It includes the course work listed above for the B.S. in Accountancy plus two additional accounting courses and the liberal arts core (with a two course reduction in the foreign language requirement). Students pursuing certification in Michigan should also take English 262 or CAS 262.

A model program for BSPA is:

First year	*Semester Hours*
English 101	3
Mathematics 143	4
Foreign Language	8
Information Science	2
History 151 or 152	4
Business 160	3
Persons in Community	3
Interim (IDIS 150)	3
Prelude (IDIS 149)	1
Foundations of Information Technology (IDIS 110)	1
Second year	
Business 203, 204, and 215	9
Economics 200, 221 and 222	8
Biblical Foundations	3
Literature core	3
Interim elective	3
Mathematics 201	4
Philosophy 153	3
Health and Fitness	1
Third year	
Business 301, 302, 305, and 315	16
One from Economics 323-339 or Business 363 or 367 or 369	3
Elective	3
Living World	4
Global and Historical studies	3
Interim (English 262)	3
Health and Fitness	1
Fourth year	
Business 306, 380, and 370	10
Business 360	
Two from Economics 323-339 or Business 363 or 367 or 369	7
The Arts	3
Cross cultural engagement	1
Health and Fitness	1
Electives	6
Fifth year	
Business 310, 311, and 350	11
Business 307	3
Rhetoric in Culture	3
Physical World	4
Theological Foundations	3
Electives	6

(As part of the major either Business 367 or 396 may be taken but not both)

Prerequisite for admission to the Bachelor of Science in Accountancy and Bachelor of Science in Public Accountancy major is a minimum grade of "C" (2.0) in both Business 203 and Business 204. Prerequisite for admission to all other major concentrations is a minimum grade of "C" (2.0) in Economics 221.

COURSES

Business

160 **Business Foundations** (3). F and S. A survey introduction to business in its economic and global contexts, its common conceptual frameworks (planning, strategy, leadership, motivation, entrepreneurship), its functional areas (marketing, accounting, finance, operations, human resources), and the critical role of management in meeting business challenges (technology, globalization, ethics, corporate social responsibility). Critical thinking is applied throughout the course using biblical concepts to evaluate business vocation, goals, theory and practice.

203 **Introduction to Managerial Accounting** (4). F. After a brief introduction to the principles of financial accounting and the purpose of financial statements, the course provides an introduction to managerial accounting concepts, budgeting, incremental cost and profit analysis, breakeven analysis, responsibility reporting, and the use of financial analysis for managerial decision-making. Not open to first-year students..

204 **Financial Accounting** (3). S. A continuation of the study of accounting. After considering the importance of generally accepted accounting principles and the study of the accounting cycle, the course emphasizes asset valuation, classification, and measurement of liabilities, and income determination. Prerequisite: Business 203.

215 **Accounting Process and Methods** (2). S. A study and application of accounting processes and techniques. The operations of accounting are explored in depth enabling the accounting major to apply generally accepted accounting principles to the transactions of the accounting cycle. The course will include significant exposure to computerized accounting applications and will parallel the topics covered in Business 204. Prerequisites: Business 203 and at least concurrent enrollment in Business 204. This course may not be taken as an elective in departmental majors or minors.

301 **Intermediate Accounting** (4). * F. A study of financial accounting theory and generally accepted accounting principles as applied to the measurement and valuation of assets and liabilities. Prerequisites: Business 204 and 215.

302 **Intermediate Accounting II** (4). * S. Continuation of Business 301. A study of financial accounting theory and generally accepted accounting principles as applied to the measurement and valuation of stockholders' equity, issues related to income determination, and preparation and analysis of corporate financial statements. Prerequisite: Business 301.

305 **Cost Accounting** (4). * F. Principles and methods of accounting for manufacturing and operating costs, with emphasis on analysis and reporting to management to facilitate planning, control, and decision-making. Prerequisites: Business 204 and Information Systems 171.

306 **Income Tax** (4). * F. A study of Federal income tax law and of tax cases to provide a basis for an understanding and evaluation of that law and of the rate structure. Includes the implications of income taxation for business decisions. Emphasis on taxation of individuals with limited coverage of partnerships and corporations. Prerequisite: Business 203.

307 **Advanced Taxation** (3). * S. A study of Federal tax law and of tax cases as they apply to corporations, partnerships, estates, and trusts. This course will analyze and evaluate the Internal Revenue Code, the IRS Regulations, and appropriate case law as the basis for understanding the law, for utilizing the law in tax planning, and for ethically interpreting the law. Tax research will be emphasized. Prerequisite: Business 306.

310 **Advanced Accounting** (4). * F. Preparation of consolidated financial statements, introduction to governmental and fund accounting, business insolvency and reorganization, the role of FASB and the SEC in ac-

counting. Prerequisites: Business 301 and Information Systems 171.

311 **Auditing** (4). * S. The theory and philosophy of auditing, including an examination of the ethical and other professional standards required of the Certified Public Accountant. Prerequisite: Completion of or concurrent registration in Business 301.

315 **Accounting Systems** (4). * S. A study of accounting systems, which provides information for decision-making. The course examines business structures, information needed for decision-making, internal controls in manual and computerized systems, systems development, systems controls, and ethical aspects of the computer environment. Computerized accounting applications are incorporated using accounting software and spreadsheets. Prerequisites: Business 204 and Information Systems 171.

350 **Law in Business** (3). * F and S. An introduction to American business law: Origins, development, legal institutions, and processes. The legal environment of business; Uniform Commercial Code and case law of business transactions; other topics selected from agency, property, partnership, corporation, regulatory, and administrative law.

351 **Organizational Behavior** (3). S. A consideration of psychological concepts and research related to human action in work situations, particularly organizations. The course includes discussions of the psychological processes of individuals involved in work and management (e.g., perceptual discrimination in varying tasks, strategies in problem solving, motivation for power and achievement, and effects of compensation on learning), and the social psychology of the work organization (communication patterns, decision-making processes, performance evaluation, conflict, and stress). The relationship of psychological theory and practice are analyzed through case studies of organizational experiences. Also listed as Psychology 301. Prerequisite: Business 160 and Psychology 151 or permission of the instructor.

357 **Business Aspects for Engineers** (2). F. An overview of the aspects of business important to engineering. Selected topics from economics, accounting, finance, marketing, management, and business law are included. Prerequisites: Economics 151 and junior or senior standing in the engineering program.

359 **Internship in Business** (4). F and S. Internships involve a minimum of ten to fifteen hours of work a week in a professional setting with an approved employer-supervisor in business or nonprofit organizations. Academic work involves readings, seminars/workshops, reflective journals, and a major paper/presentation. Students may take Business 359 two times, but only one will fulfill an elective requirement in a department major. Prerequisites: Three courses in business or economics and permission of the internship coordinator.

360 **Perspectives on Management** (3). F and S. This course attempts to help students develop an integrated understanding of management based on God's revelation in creation and His Word. It develops this understanding through critical engagement with management perspectives of scholars and practitioners writing from both secular and Christian foundations. Prerequisites: Business 160 and Economics 151 or 221. Biblical Foundations I or Theological Foundations I, Developing a Christian Mind and Philosophical Foundations. Not open to first-year or sophomore students.

361 **Health Care Administration and Economics** (3). * The course develops an economic framework for understanding health care institutions and emphasizes the response of health care administrators and business professionals to current health system changes and challenges. Discussion issues include health care reimbursement and finance, health provider management and marketing strategies, business strategies for managing healthcare costs, and health care policy. Prerequisites: Economics 221 and Business 160 or permission of the instructor. Not offered 2007-2008.

363 **Production and Operations Management** (3). * S. A study of the management of production and operations within a business, including planning, control, and evaluation of resources, inventory, schedules, and product or service quality. Techniques for making location decisions, implementing just-in-time purchasing and production, scheduling production, and using statistical

process control (SPC) are studied. Computer applications are occasionally integrated for analysis and simulation purposes. Prerequisites: Business 160 and Mathematics 143 or its equivalent and junior level status.

365 **Human Resource Management** (3). * F and S. A study of the principles and problems involved in personnel management in an organization, including recruitment, selection, training, evaluation, motivation, compensation, human resource planning, career development, and collective bargaining. Prerequisites: Business 160 or permission of the instructor and junior level status.

367 **Small Business Management** (3). * S. An integrative study of the business management principles applicable to the challenges and opportunities unique to small businesses. The course emphasizes strategic analysis of management, marketing and financial issues facing small firms primarily from an entrepreneurial perspective. This course includes lectures, case studies and experiential learning through consulting activities with local firms. Prerequisite: Business 370 and 380; Economics 222 or permission of the instructor.

369 Global Business (3) This course is an upper level study of the environment and challenges of doing global business. It provides an overview of the importance of international business and trade in the global economy and explores the factors that influence success in international markets. Students will learn about the techniques and strategies associated with managing international business effectively. Topics include the impact of cultural and political differences on the business environment, a survey of cross-cultural concerns to businesses in a global environment, possible forms of foreign business involvement, the international monetary system, foreign exchange markets and multinational firm strategies related to the various functions of business. Prerequisites: Business 204 and 360 and Economics 222.

370 **Financial Principles** (3). * F and S. A study of the principles and problems of the financial management of the firm, including such topics as stock and bond valuation, working capital management, cost of capital and capital budgeting, capital structure, and dividend policy. Prerequisites: Business 204 and Economics 221.

371 **Financial Instruments and Markets** (3). *S. An application of finance theory to investment instruments, including stocks, bonds, options, and futures. The course also examines the financial markets and institutions in which these instruments trade, including investment companies, funds and exchanges. Prerequisite: Business 370.

380 **Marketing** (3). * F and S. A study of the principles and practice of planning and controlling marketing programs, including the conception, development, pricing, promotion, and distribution of ideas, goods, services, experiences, and values that attempts to satisfy individual and organizational needs and objectives. Prerequisite: Economics 221.

381 **Advanced Topics In Marketing** (3). * S. A study of marketing theory, strategy and tactics. This course is research based and includes experiential learning projects. Prerequisites: Mathematics 143 and Business 380.

382 **Consumer Behavior Theory and Practice** (3). * An in-depth look at the processes involved when consumers purchase and use products, explanations for purchase and use, and implications for marketing research and marketing strategy. Prerequisites: Business 380, Mathematics 143, or equivalent.

390 **Independent Study**. F, I, and S. Prerequisite: Permission of the department chair.

396 **Strategic Management** (3). * S. An integrative study of strategic management, requiring contemporary, comprehensive case applications of concepts from economics, marketing, accounting, finance, management, and international business. Ethical aspects of strategic decision making are emphasized. Student teams study cases and present their analyses. This course is recommended for students wishing to understand the formulation and implementation of ethical strategies in diversified businesses. Prerequisites: 370 and 380; Economics 222 or permission of the instructor.

Chemistry and Biochemistry

Professors R. Blankespoor, R. DeKock, L. Louters (chair), K. Carlson Muyskens, M. Muyskens, K. Sinniah
Associate Professor E. Arnoys
Assistant Professors C. Anderson, C. Bruxvoort, D. McCarthy, C. Tatko, D. Vander Griend

The department offers programs of concentration for students interested in continuing their studies in medical school or graduate school, for those interested in a career as a chemist or biochemist in government or private industry, and for those interested in teaching chemistry at the secondary level. A concentration in chemical engineering is offered with the Engineering Department. Students who are majoring in Environmental Science with a Chemistry focus should consult the entry under Environmental Science for a description of this program.

Prerequisite to a program of concentration in chemistry or biochemistry is a minimum average of "C" (2.0) in Chemistry 104 and in one course from Chemistry 201, 253, or 261. The physical science core requirement may be met by Chemistry 101, 103, 104, or 115. For general college students the preferred core course is Chemistry 101.

All students majoring in the department, with the exception of those in a secondary education program, must complete a capstone course during the senior year. Normally this course will be IDIS 310- History of Science. Other options for the capstone course are possible but must be approved by the student's academic advisor.

CHEMISTRY MAJOR

Chemistry 103 and 104
Chemistry 201
Chemistry 261 and 262
Chemistry 304 or 317
Two from Chemistry 318, 323/383, 329, and 330
IDIS 310 or an approved course in integrative studies
Chemistry 295 (four times)
Completion of Major Field Test in Chemistry

Cognates
Mathematics 161 and 162
Physics 221 and 222 or 133 and 235

CHEMISTRY MINOR

Chemistry 103 and 104
Chemistry 201
Chemistry 253 or 261
Chemistry 304 or 317
One from Chemistry 262, 318, 323/383, 329, or an approved interim course

CHEMISTRY MAJOR (ACS Certified)

For students preparing for graduate study in chemistry, the certification requirements of the American Chemical Society for professional training in chemistry may be met by completing the following courses:

Chemistry 103 and 104
Chemistry 201
Chemistry 261 and 262
Chemistry 295 (four times)
Chemistry 317 and 318
Chemistry 323
Chemistry 329
Chemistry 330
Chemistry 395 (3 or 4 semester hours)
Chemistry 325
IDIS 310 or an approved course in integrative studies
Completion of Major Field Test in Chemistry

Cognates
Mathematics 161 and 162
Mathematics 261
Mathematics 231 or 256
Physics 133 and 235

SECONDARY EDUCATION CHEMISTRY MAJOR

Chemistry 103 and 104
Chemistry 201
Chemistry 253 and a four semester-hour Chemistry elective (recommended); or Chemistry 261 and 262
Chemistry 295 (three times)
Chemistry 304 (recommended) or 317
Chemistry 323 and 383

Chemistry 396 or equivalent (offered odd years)
Completion of Major Field Test in Chemistry

Cognates
Mathematics 132 or 161
Physics 133 and 235 or Physics 221 and 222
SCES 214

SECONDARY EDUCATION CHEMISTRY MINOR

Chemistry 103 and 104
Chemistry 201
Chemistry 253 (recommended) or 261
Chemistry 295 (two times)
Chemistry 304 (recommended) or 317
Chemistry 323 and 383
Chemistry 396 (offered odd years)

Cognates
SCES 214
and one of the following 2-course packages
Math 161/162; Math 132/143; Physics 133/134; Math 161 or 132 and Physics 221 or 133

ELEMENTARY AND SECONDARY INTEGRATED SCIENCE STUDIES

Students in the Elementary or Secondary Education Program wishing to major or minor in science should consult the Science Education section of the catalog

BIOCHEMISTRY MAJOR

Chemistry 103 and 104
Chemistry 201
Chemistry 261 and 262
Chemistry 304 or 317
Chemistry 323 and 324
Chemistry 383
IDIS 310 or an approved course in integrative studies
Chemistry 295 (four times)
Completion of Major Field Test in Chemistry

Cognates
Mathematics 132/143 or 161/162
Physics 221 and 222 or 133/235
Biology 141
Two from Biology 242, 243, 321, 333, 335, or 336 (one of which must be a 300-level course)

BIOCHEMISTRY MINOR

Chemistry 103 and 104
Chemistry 253 or 261
Chemistry 323 and 324
Chemistry 383
One course from Chemistry 201, 262, 304, 317, or an approved interim

BIOCHEMISTRY MAJOR (ACS Certified)

For students preparing for graduate study in biochemistry, the certification requirements of the American Chemical Society for professional training in chemistry may be met by completing the following courses:

Chemistry 103 and 104
Chemistry 201
Chemistry 261 and 262
Chemistry 295 (four times)
Chemistry 317 and 318
Chemistry 323 and 324
Chemistry 329
Chemistry 330
Chemistry 383
Chemistry 395 (3 semester hours)
IDIS 310 or an approved course in integrative studies
Completion of Major Field Test in Chemistry

Cognates
Mathematics 161 and 162
Physics 133 and 235
Biology 141
Biology 321
One course from Biology 242, 243, 333, 335, and 336

GROUP SCIENCE MAJORS

A group major in science and Mathematics meets the needs of some students, particularly those in professional programs. These majors are not normally appropriate for students who anticipate attending graduate school and cannot be taken by students in teacher education programs. Such group majors require twelve courses in the sciences and mathematics, ten of which must be from two departments with no fewer than four from either, with the remaining two courses chosen from a third department. At least two 300-level courses in one discipline must be included in the ten-course component of

this group. The chairs of the three departments involved must approve each program of this type.

HONORS PROGRAM

The Department sponsors an honors program to supplement the formal course offerings in the department's degree programs, increase both the breadth and depth of the student's knowledge of modern chemistry, and lead to an honors degree in chemistry or biochemistry upon graduation. The program offers guided study in chemistry through tutorials, independent research, and special honors courses such as Chemistry 103LH or Chemistry 261H, and Chemistry 395H seminars.

The requirements for graduation with honors in chemistry or biochemistry are: (1) at least a 3.5 cumulative grade point average; (2) at least a 3.5 cumulative grade point average in the departmental major courses; (3) six honors courses (18 hours minimum) overall with three being departmental courses in the major and three courses outside of the major, not more than one of which may be a cognate course to the major; (4) completion of a major in Chemistry or Biochemistry; (5) completion of at least 4 semester hours of 395H (research seminar for honors) as one of the departmental major courses, one of the two other required departmental major courses must be at the 200-level or higher.

COURSES

101 **The Molecular World** (4). S. This is a general course designed for the non-science major and the elementary education student. The course explores the role of chemistry and its resulting technologies in the environment and contemporary society. It emphasizes the nature of scientific investigation, some historical developments in chemical theory, chemical periodicity and reactivity, and our daily interaction with synthetic materials and chemicals. The course is taught from a biblical worldview and addresses issues such as the validity and limitations of scientific knowledge, human responsibility in applying such knowledge in society, and the care and stewardship of natural resources. Laboratory.

103 **General Chemistry I** (4). F. This course is a study of the basic principles of chemistry, with emphasis on the laws of chemical combination, descriptive inorganic chemistry, thermochemistry, the gas, liquid, and solid states of matter, the periodic law, atomic structure and chemical bonding, and the nature of intermolecular forces. The course is taught from a biblical and reformed worldview and addresses issues such as the validity and limitations of scientific knowledge, the methodology of the physical sciences, human responsibility in applying such knowledge in society, and the care and stewardship of natural resources. Laboratory. Prerequisite: One year of high-school chemistry or permission of the instructor. Note: Successful completion of the Chemistry 103-104 sequence meets the two-course requirement of the Natural World category.

103R **General Chemistry Recitation** (1). F. A special course in the introductory concepts of chemistry that is open only to students who have not studied chemistry previously or who have a weak high school background in mathematics and chemistry. The course emphasizes problem solving and the understanding of basic chemistry concepts. Prerequisite: Concurrent registration in Chemistry 103.

104 **General Chemistry II** (4). S. A continuation of Chemistry 103 with emphasis on kinetics, chemical equilibria involving gases, weak acids and bases, and slightly soluble solids, free energy changes, electrochemistry, transition metal chemistry, descriptive chemistry, and nuclear chemistry. Laboratory. Prerequisite: Chemistry 103 or the equivalent.

115 **Chemistry for the Health Sciences** (4). F and S. This course is specifically designed for those planning for a health care career such as Nursing or other allied health careers that require a chemistry course. The fundamental concepts of general chemistry, organic chemistry, and biochemistry are presented with an emphasis on the chemical nature of biological systems. Topics such as molecular bonding and structure, equilibrium chemistry, and chemical reactivity as illustrated by acid/base reactions and redox reactions are presented in a biological context such as membranes, enzymes, buffers, and cellular energy metabolism. Issues regarding the eth-

ics and stewardship of health also will be discussed. Laboratory. Prerequisite: High school chemistry.

201 **Analytical Chemistry** (4). F. A problem-solving approach that incorporates sampling, sample preparation, separation of the analyte from interfering substances, measurement, data analysis, and interpretation. Quantitative analysis is presented in the context of analytical methods that primarily include separation science (gas, liquid, ion chromatography, and eletrophoresis), optical spectroscopy (uv-visible, fluorescence, and atomic absorption spectroscopy), and electrochemistry (electrode potentials, ion-selective electrodes, and sensors). The laboratory includes chemical analysis of water in the athletic field and nature preserve ponds, and the measurement of air quality across Calvin's campus using modern analytical techniques and wet chemical methods. These methods illustrate the principles of complex equilibria, theory of acids and bases, and titrations. Laboratory. Prerequisite: Chemistry 104. Not open to seniors except by permission.

253 **Fundamentals of Organic Chemistry** (5). F. A study of organic compounds, reactions, and reaction mechanisms, emphasizing their biochemical significance. Laboratory. Prerequisite: Chemistry 104.

261 **Organic Chemistry I** (5). F, SS. A detailed study of organic compounds, their synthesis and reactions, presented within the framework of modern physico-chemical theory, together with an introduction to modern methods of analysis and identification. Laboratory. Prerequisite: Chemistry 104.

262 **Organic Chemistry II** (5). S, SS. A continuation of Chemistry 261. Laboratory. Prerequisite: Chemistry 261.

271 **Environmental Chemistry** (3). I, odd years. A study of the chemistry of the atmosphere, natural water, and soils, with a special focus on environmental problems arising from the activities of humans, including a study of acid precipitation, greenhouse gases, ozone depletion, urban and indoor air pollution, water and soil pollution, solid and hazardous waste disposal, and risk assessment all presented within the context of a Christian view of humans and nature. Prerequisite: Chemistry 253 or 261.

281 **Laboratory in Environmental Chemistry** (1). S, odd years. Experiments and investigations devoted to chemical analysis of samples obtained from the atmosphere, hydrosphere, and lithosphere using EPA approved protocols involving both instrumental and wet chemical methods. Prerequisite: Chemistry 271.

295 **Chemistry Seminar**. F and S, no credit. A seminar devoted to an exploration of topics in current chemical research in both academic and industrial laboratories. Junior and senior chemistry majors must attend each semester; freshmen and sophomores intending to major in chemistry are encouraged to attend.

304 **Physical Chemistry for the Biological Sciences** (4). S, odd years. A survey of physical chemistry with emphasis on the laws of thermodynamics, physical equilibria, transport phenomena, and enzyme kinetics. Topics are treated with life science applications. Laboratory. Prerequisite: Chemistry 104, a one-semester college level calculus course.

317 **Physical Chemistry I** (4). F. A study of macroscopic properties of matter as described by chemical thermodynamics and kinetics. Major topics include: The laws of thermodynamics and their application to pure substances, chemical reactions, solutions, and physical and chemical equilibria, and reaction kinetics. Laboratory. Prerequisites: Chemistry 104, Mathematics 162, and a college physics course.

318 **Physical Chemistry II** (4). S, even years. A study of the microscopic even of matter in terms of quantum mechanics and statistical mechanics. Major topics include: The structure, energy, and spectroscopy of atoms and molecules given by quantum theory, and the relationship between microscopic and macroscopic properties of matter (statistical mechanics). Laboratory includes a six-week project on a topic proposed by the instructor. Prerequisite: Chemistry 317.

323 **Biochemistry I** (4). * F. A study of proteins, enzymes, carbohydrates, lipids, and membranes with an emphasis on the relationship of structure and function. Also included is the study of metabolism with primary focus on glycolysis, gluconeogenesis, glycogen metabolism, Krebs cycle, and oxidative phosphorylation. Prerequisite: Chemistry 253 or 262.

324 **Biochemistry II** (4). * S. A continuation of Chemistry 323. Topics covered are lipid metabolism, photosynthesis, biosynthesis of macromolecular precursors, the chemistry of the storage, transmission and expression of genetic information, biochemical dimensions of selected physiological processes, and philosophical and ethical issues related to biochemistry. Also listed as Biology 324. Prerequisite: Chemistry 323.

325 **Advanced Organic Chemistry** (4). * S, odd years. A study of selected topics in organic synthesis or physical organic chemistry. In the laboratory individual projects involving multi-step syntheses are carried out based upon procedures found in the literature. All compounds prepared are characterized using spectroscopic methods and other instrumental techniques. Prerequisites: Chemistry 262 and 304 or 317.

329 **Instrumental Methods for Chemical and Biological Sciences** (4). * S. The aim of this course is to expose students to several instrumental techniques in chemistry, biochemistry, and biotechnology. The course will cover the principles underlying common instrumental methods, surface analytical methods used for studies in chemical and biological materials, spectroscopic techniques, separation techniques and thermal methods. A combination of lecture and/or laboratory will cover a number of instrumental techniques. Special emphasis will be paid to techniques such as nuclear magnetic resonance and mass spectrometry, which are essential to the chemical and pharmaceutical industries. An important aspect of this course is to provide students with "hands-on" experience on a number of instruments used in industrial and academic laboratories. The focus is to examine how these instruments work, how they are best used, and what type of performance one can expect. In the laboratory, students have the option of choosing the types of instruments and/or experiments to investigate based on their intended major. The final six laboratory sessions will be devoted to an independent project, which will use a minimum of two instruments. Laboratory. Prerequisite: Chemistry 201 or 261 and Mathematics 143.

330 **Advanced Inorganic Chemistry** (4). * F, even years. A fundamental study in the chemistry of all elements with emphases on periodicity, symmetry, bonding, and reactivity. Types of compounds discussed include ionic solids, cage compounds, organometallic compounds, coordination compounds, and bioinorganic compounds. Electronic and magnetic characteristics are studied in depth. A significant component of the course involves studying advances in inorganic chemistry from peer-reviewed literature. Laboratory. Prerequisite: Chemistry 304 or 317.

359 **Seminar in Secondary Teaching of Chemistry** (3). S. A course in perspectives on, principles of, and practices in the teaching of Chemistry on the secondary level. This course should be taken concurrently with Education 346. The seminar provides a forum for the discussion of concerns that develop during directed teaching. This course is part of the professional education program and may not be included in the major or minor in Chemistry.

383 **Laboratory in Biochemistry** (1). * F and S. A laboratory course designed to teach students modern biochemical separation and analytical techniques. Included in this course are the following topics: Exclusion, ion-exchange, affinity, and high performance liquid chromatography, agarose gel and polyacrylamide gel electrophoresis, ultracentrifugation, ultraviolet/visible spectroscopy, enzyme kinetics, and recombinant DNA techniques. Students will be required to carry out individual projects involving the purification and analysis of a biological macromolecule from cells or tissue. Also listed as Biology 383. Pre or co-requisite: Chemistry 323.

385 **Internship in Chemistry** (3). F and S. Internships in industrial or commercial chemistry laboratories or in non-profit chemistry laboratories will be arranged for qualified students. Students work in off-campus laboratories or offices for 10-12 (3 semester hours) or 13-15 (4 semester hours) hours per week throughout the semester. They will work under the supervision of an off-campus employer-supervisor and a faculty internship coordinator. Interns will meet with their faculty coordinator bi-weekly, will be required to keep a reflective journal, and must submit a final written paper summarizing their internship experience. The off-campus supervisor will send in an evaluation report

on the work of the intern. To be enrolled in an internship, the student must have junior or senior standing, must have a cumulative GPA of 2.0 or better, an average GPA of 2.0 or better in all credited science and Mathematics courses, must have completed the second semester of Organic Chemistry (Chemistry 262) or equivalent, must complete an Internship Application Form, and must be approved by both the department and the off-campus employer.

390 **Independent Study**. F, I, and S. Directed readings or projects. Admission by permission of the chair and instructor under whom the work will be done.

395 **Academic Year Research**. (1 or 0) * F, I, and S. Literature and laboratory research on a project selected in consultation with a faculty member at Calvin College. Depending on course load, a student may receive permission to register for zero credit hours. Regardless of credit, completion of a course implies 45 hours of research. This course may be taken more than once, even in a single semester. The student will be required to complete all tasks specified by the supervisor and, after a student has taken it a third time, he or she will be required to present a seminar in the departmental seminar series (Chem 295).

396 **Perspectives in Chemistry** (1). * F, odd years. Reflections on the discipline of chemistry: Its history, methodology, philosophy, curricular structure, key ideas, and concepts; its role as a central science in technology and society; and the responsibilities of its practitioners in industry and in academic and research institutions. Prerequisite: Junior or senior status in a chemistry program of concentration.

397 **Summer Research**. F and S, no credit. Summer literature and laboratory research for a minimum of ten weeks full time on a project selected in consultation with a faculty member at Calvin College. If the project is to be conducted off campus, prior approval by the chair is required. The student will be required to complete all tasks specified by the supervisor and to present a seminar in the departmental seminar series (Chem 295) the academic year following the summer research. Course appears on transcript for the semester in which the seminar was given.

IDIS 310 **History of Physical Science** (3). S. Integrative Studies/ Capstone. An examination of natural philosophy in the 17th century and of major developments since then in the physical sciences (predominantly physics and chemistry). Particular attention is given to the philosophical and religious background of scientific ideas and the institutional context in which science develops. A central theme of this capstone course will be the investigation of the interaction of science and religion with a view toward articulating a critical reformed Christian perspective on this historical development. Some primary texts will be considered. Prerequisites: DCM, HIST 151 or 152, PHIL 153, REL 121 or 131, junior/senior standing, and a declared major in the natural sciences (or approval of the instructor).

Off-Campus Offering

332 **Environmental Chemistry.** Principles and analysis of chemical movement and distribution in natural environments. Sampling and analytical methods are included for water, soil, and air. Work conducted both in natural habitats and the laboratory. Prerequisites: One year of general chemistry and one semester of either biochemistry or organic chemistry. Offered in conjunction with the AuSable Institute.

Graduate Courses

590 **Independent Study**. * F, I, and S.

Chinese

Associate Professors H. DeVries (chair), L. Herzberg

A Chinese language major is available under the Asian Studies Major, Track 1: Chinese Language Track (see "Asian Studies"). The major includes eight Chinese language courses and four culture courses.

There are two possible minors available, namely the Chinese language minor and the Chinese Study Group Minor.

Students can fulfill the two-year language requirement by taking Chinese 101 through Chinese 202.

During fall semester of each year, Calvin offers its own full-time Chinese language and history program in Beijing, China at Capital Normal University. The program in Beijing is for students with or without prior knowledge of Chinese. The advisor for the program is D. Bays of the History Department.

THE CHINESE LANGUAGE MINOR

The minor consists of seven Chinese language courses including Chinese 101, 102, 201, 202, 215, 216, and either 217 or 218.

THE CHINESE STUDY GROUP MINOR

The minor consists of Chinese 101, 102, 201, 202, and three courses chosen from Art 241, History 245, 246, 346, 371, or Semester in China 210, Philosophy 225, Political Science 277, Religion 255 or 355, or any one interim course on China including a Calvin-approved interim trip to China.

COURSES

101 **Elementary Chinese** (4). F. An introduction to Chinese language and culture, stressing both spoken and written Chinese. After one-semester students will be able to carry on simple conversations in (Mandarin) Chinese, read dialogues written in Chinese, and understand some fundamentals of Chinese social values and ways of thinking. Approximately 300 Chinese characters will be introduced.

102 **Elementary Chinese** (4). F. A continuation of Chinese 101. Continued study of Chinese grammar, with equal emphasis on improving conversational proficiency and on reading and writing Chinese. Another 300 Chinese Characters will be introduced for reading and writing and as a medium for gaining insight into Chinese culture. Prerequisite: Chinese 101 or permission of the instructor.

201 **Intermediate Chinese** (4). F. A continuation of Chinese 101. Continued study of Chinese grammar, with equal emphasis on improving conversational proficiency and on reading and writing Chinese. Another 300 Chinese Characters will be introduced for reading and writing and as a medium for gaining insight into Chinese culture. Prerequisite: Chinese 101 or permission of the instructor.

202 **Intermediate Chinese** (4). S. A continuation of Chinese 201. Completion of the study of basic Chinese grammar and further study of the Chinese writing system, with continued emphasis on both speaking and reading. Two hundred more Characters are taught for reading comprehension and cultural understanding.

215 **Advanced Conversation** (4). F. This course is designed to develop advanced aural comprehension skills as well as advanced competence in spoken Chinese through exercises, drills, and conversation in class. Students will also continue their study of the written language by learning many new Chinese Characters or pictographs. Prerequisite: Chinese 202 or permission of the instructor.

216 **Advanced Grammar and Composition** (4). S. The systematic study of advanced grammar and composition. Students will learn many new Chinese Characters as they improve their skills in written Chinese. Conversation practice will also be emphasized. Prerequisite: Chinese 215 or permission of the instructor.

217 **Introduction to Modern Chinese Literature: 1911 to the Present** (3). F. A continuation of Chinese language study and an introduction to works written by major Chinese

authors from 1911, when Chinese literature was first written in the modern vernacular, to the present, as well as selected readings on Chinese history, society, and culture. Prerequisite: Chinese 216 or permission of the instructor.

218 **Further Studies in Modern Chinese Literature: 1911 to the Present** (3). S. This course builds on Chinese 217 and deals with literary texts of greater linguistic difficulty. It also includes further language study and selected readings on Chinese history, society, and culture. Prerequisite: Chinese 217 or permission of the instructor.

Classical Languages

Professors K. Bratt, M. Williams (chair)
Assistant Professors D. Noe, J. Winkle

The department offers four programs of concentration in Classical Studies, Classical Languages, Greek Language, and Latin Language. The program in Classical Studies combines some study of one of the languages with a broad study of Greco-Roman civilization and its later influence. The Classical Languages program is designed for graduate studies; the Greek language program is for pre-seminarians and for any others wishing to concentrate in Greek language and literature, and the Latin language program is for those intending to teach the language at the secondary school level and for any others wishing to concentrate in Latin language and literature.

Courses not normally scheduled may be offered to qualified students on an individual basis so that specific concentrations may be completed.

CLASSICAL STUDIES MAJOR

Two 200-level Greek or Latin courses
Classics 211
Classics 221
Classics 231
Philosophy 251
Two from History 232, 261, or 262
Two from Art History 101, 233, 235, Greek 101, 102, History 262, 263, 264, Latin 101, 102, Philosophy 312, Religion 241, 341, CAS 325, 320, or additional courses in the selected languages
One interim or Classics 241 or 242

CLASSICAL STUDIES MINOR

Two 200-level Greek or Latin courses
Classics 211
Classics 221
Classics 231
History 261
One elective drawn from Greek 101 or 102, Latin 101 or 102; additional work in intermediate or advanced Greek or Latin courses; History 232 or 262; or Philosophy 251

CLASSICAL LANGUAGES MAJOR

Six from Latin 101, 102, 201, 202, Greek 101, 102, 201, 202, 203, or 207
Six from Latin 205, 206, 300, 302, 304, 305, 391, Greek 201, 202, 203, 205, 206, 207, 303, or 304 (at least one 300-level course must be taken in each language)
Two from Classics 211, 221, 231, or History 261
One interim or Classics 241 or 242

GREEK MAJOR

Six from Greek 101, 102, 201-207, 303, or 304
Two from Greek 101, 102, 201-207, 303, 304, 395, Classics 211, 221, 231, or History 261 (at least one 300-level Greek course)

GREEK MINOR

Five from Greek 101, 102, 201-207, 303, 304, or 395
One Classics course

LATIN MAJOR

Six from Latin 101, 102, 201, 202, 205, 206, 300-305, or 391
Three from Latin 101, 102, 201, 202, 205, 206, 300-305, 391, Classics 211, 221, 231, or History 261 (at least one 300-level Latin course)

LATIN MINOR

Five from Latin 101, 102, 201, 202, 205, 206, 300-305, or 391
One Classics course

LATIN SECONDARY EDUCATION MAJOR

Latin 201
Latin 202
Latin 205
Latin 206
Latin 300
Latin 302
Latin 304
Latin 305
IDIS 357
IDIS 359

LATIN SECONDARY EDUCATION MINOR

Latin 201
Latin 202
Latin 205
Latin 206
Latin 357
At least 6 hours of electives from Latin 300, 302, 304, 305

Students who have completed one year of high school Latin should enroll in Latin 101; two years in Latin 201 (except that the unusually well-qualified student, even with only two years of high school Latin, may, with department approval, enroll directly in Latin 205 and so meet the core requirement for language with one college course); those with three years, in either Latin 202 or 205; more than three years, in Latin 205 or 206. Students, whose qualifications permit them to omit Latin 201 or 202, should consult the department chair regarding special major or minor programs. Those who have completed one year of college Latin should enroll in Latin 201.

The core requirement in the arts may be met by Classics 221 and 231. Classics 231 may be part of the teaching minor in the academic study of religions. Completion of Latin 202 or Greek 202 (or their equivalents) satisfies the college language requirement. Classics 211 also meets the core literature requirement.

COURSES

211 **Classical Literature** (3). S. The major works of Greek and Roman literature from Homer to Augustine are studied. Primary attention is devoted to the origins and development of Greek epic, lyric, drama, and historiography, and to their transformation in the literature of Rome and the church fathers. Artistic and archaeological evidence supplements the study of the texts.

221 **Classical Art and Architecture** (3). S. This is a study of the major arts of ancient Greek and Roman civilization from the Bronze Age to the late Empire. Primary attention is devoted to the origins and development of Greek sculpture, painting, and architecture, and to their transformation in the arts of Rome. Ancient literary sources supplement the study of physical remains in this investigation of Greek and Roman culture.

231 **Classical Mythology** (3). F and S. This is a study of the major themes in Classical mythology via the literature and art of Greece and Rome. Major literary sources are read in translation and major art works of both cultures are studied via slides. Attention is given to various interpretations of the myths and the works of art they have influenced over the course of Western culture. Lectures, discussions, and written reports.

241 **Vocabulary Development Through Latin and Greek Roots** (2). A study of the Latin and Greek origins of English vocabulary. Students will learn to identify the Latin and Greek bases of English words and so be able to enlarge their vocabulary and to give it etymological precision. Students with a special interest in scientific vocabulary may prefer Classics 242. Not offered 2007-2008.

242 **Biological and Medical Vocabulary from Greek and Latin** (2). A study of the basic Greek and Latin components of scientific terminology, especially intended for students in biology and the health sciences. Non-science students may prefer Classics 241. Not offered 2007-2008.

Greek

101 **Elementary Greek I** (5). F. A beginning study of classical Greek with emphasis on the essentials of grammar and basic vocabulary.

102 **Elementary Greek II** (5). S. A continuation of Greek 101. Completion of the text and the reading of selected prose passages. Completion of this course allows the student to read works like the New Testament with the help of a grammar and lexicon.

201 **Intermediate Greek A** (3). F, alternate years. Readings in the early dialogues of Plato. Special emphasis is put on gaining reading proficiency in Greek prose. Prerequisite: Greek 102. Not offered 2007-2008.

202 **Intermediate Greek B** (3). S, alternate years. This course includes readings in Homer's *Iliad* or *Odyssey*, with special emphasis put on gaining reading proficiency in Greek poetry and to exploring some major themes of Greek religion and mythology. Prerequisite: Three semesters of Greek. Not offered 2007-2008.

203 **Readings in Herodotus** (3). F, alternate years. In this course, special emphasis is placed on gaining reading proficiency in Greek prose, with some attention to the characteristics of Herodotus as historian in relation to Thucydides.

205 **New Testament Greek: The Gospels** (3). F. In this course, the Gospel of Mark is read with attention to the parallel passages in the other Gospels. A study is made of the special features of Hellenistic Greek. The significance of lexical and syntactical detail for the interpretation of the text is emphasized. Prerequisite: Greek 102.

206 **New Testament Greek: The Epistles** (3). S. A study is made of some of the Pauline Epistles. Prerequisite: Greek 205.

207 **Greek Tragedy** (3). S, alternate years. This course includes a close reading of at least one Greek tragedy with attention to its poetic and dramatic qualities. Those matters of Greek culture, literary tradition, and history that help us to understand the tragedies are also noted. Prerequisite: Three semesters of Greek.

303 **Advanced Greek Prose** (3). * F. A study of selected Greek prose authors, based on student interest and demand. Authors studied may include Thucydides, Plato, Aristotle, Xenophon, Polybius, the Attic orators, or the Church fathers. Prerequisite: Four courses in Greek or permission of the instructor.

304 **Advanced Greek Poetry** (3). * S. A study of selected Greek poets, based on student interest and demand. Authors studied may include Hesiod, the lyric and elegiac poets, Aristophanes, Menander, or Callimachus; tragic poetry not otherwise covered in the curriculum may also be studied. Prerequisite: Four courses in Greek or permission of the instructor.

395 **Special Topics in Ancient Greek** (3). Independent study of special topics or authors not ordinarily covered in the rest of the Greek curriculum. Prerequisites: Four courses in Greek. Offered as needed. May be repeated provided the course content is different.

Latin

101 **Elementary Latin I** (4). F. For students who had only one unit of high school Latin or who have had no Latin. Emphasis is placed on the essentials of grammar and a basic vocabulary with constant comparison to English. Sententiae from the principal Latin authors will be read.

102 **Elementary Latin II** (4). S. A continuation of Latin 101. Emphasis is placed on grammar and the early reading of longer selections of authentic Latin dealing with Roman history and culture. Prerequisite: Latin 101 or its equivalent.

201 **Intermediate Latin I** (4). F. A thorough review of the essentials of grammar will accompany the reading of selected Latin prose. Prerequisite: Two years of high school Latin or two courses of college Latin.

202 **Intermediate Latin II** (3). S. This course involves a study of selected prose and poetry in Latin, which may include the *Metamorphoses* of Ovid and the *Confessions* of Augustine. Prerequisite: Three years of high school Latin or Latin 201.

205 **Latin of the Late Republic and Early Empire** (3). F. This class includes readings in the prose and poetry of major writers, which are selected to survey the development of classical Latin literature and to serve as an

introduction to the advanced genre courses. Prerequisite: Latin 202, three years of high school Latin, or permission of the instructor.

206 **Late Latin Literature** (3). S. This course includes readings in Latin prose and poetry of the later empire and the middle ages from both Christian and non-Christian authors. Prerequisite: Latin 202, 205, or permission of the instructor. This course satisfies the core requirement in Literature for students who satisfy their foreign language requirement with other courses.

300 **Latin Epic Poetry** (3). * F, alternate years. A close reading of selections from Vergil's Aeneid and/or other works of Latin epic literature. Prerequisite: Latin 205 or 206.

302 **Latin Philosophical Literature** (3). * S, alternate years. Texts selected from such authors as Lucretius, Cicero, Seneca, Lactantius, and St. Augustine to illustrate the Latin contribution to Western culture, particularly in ethical and social thought. Prerequisite: Latin 205 or 206.

304 **Latin Historical Literature** (3). *S, alternate years. Intensive reading in the major Roman historians of the Late Republic and Early Empire. Emphasis is placed upon the proper interpretation of these writers as sources for our understanding of the political movements of the period. Collateral reading and reports. Prerequisite: Latin 205 or 206. Not offered 2007-2008.

305 **Latin Lyric** (3). * F, alternate years. Selected poetry from such authors as Vergil, Catullus, Horace, and the elegiac poets, with attention to metrics and the Greek heritage in lyric. Prerequisite: Latin 205 or 206 or the equivalent. Not offered 2007-2008.

391 **Special Topics in Latin** (3). Independent study of special topics. Offered as needed. May be repeated provided the course content is different. Prerequisite: At least two 300-level courses in Latin or permission of the instructor.

Communication Arts and Sciences

*Professors R. Bytwerk, M. Fackler, R. Fortner, D. Freeberg, †M. Page, *C. Plantinga, W. Romanowski, Q. Schultze, H. Sterk (chair), J. Vander Woude*
Associate Professors R. Buursma, T. Farley, B. Fuller, P. Goetz, K. Groenendyk, B. Macauley, G. Pauley, S. Sandberg
Assistant Professors D. García, C. Smit, P. Spence
Adjunct L. Vander Meer

The department serves students intending careers in communication-related professions and those who wish to understand the society in which they live and to improve their ability to communicate. The department offers majors in speech pathology and audiology, film studies, rhetoric and communication, media production, media studies, and theatre. The department also offers group majors in business communication and digital communication. Students with a GPA of 2.5 and above are encouraged to do an internship, either locally or with the Chicago Semester, the American Studies Program in Washington, D.C., or the Los Angeles Film Studies Center. The department's internship advisor is P. Spence.

The group minor in journalism, a program involving the department, is described under the Department of English.

FILM STUDIES MAJOR

CAS 145
CAS 190 or 290
CAS 284
CAS 352
CAS 383
Two courses from: CAS 281, 282, CAS/ENGL 296
Three CAS electives, one of which may be an interim.

MEDIA PRODUCTION MAJOR

CAS 145
CAS 190
CAS 248
CAS 249
Two courses from CAS 250, 290, or 316
Three courses with at least one from each category:
Media History: CAS 230, 255, 281, or 282
Media Theory and Criticism: CAS 238, 254, 284, 305, or 383
Two courses from CAS 346, 351, or 390
CAS 352 or 399

MEDIA STUDIES MAJOR

CAS 140
CAS 190
CAS 230
CAS 238
CAS 254
CAS 352
CAS 399
One course from CAS 248, 249, or 250
One course from CAS 255 or 284
One course from CAS 281 or 282
One course from CAS 285, 305, 318, 330, 346, 354 or 395

RHETORIC AND COMMUNICATION MAJOR

CAS 101
CAS 140 or 141
CAS 205
CAS 238
CAS 305
CAS 327
CAS 352
Two courses selected from CAS 200, 203, or 211
One course selected from CAS 240, 253, 260, or 270
One course selected from CAS 230, 318, or 330
One CAS elective, which may be an interim

SPEECH PATHOLOGY AND AUDIOLOGY MAJOR

CAS 140
CAS 210
CAS 212
CAS 215
CAS 216
CAS 311
CAS 344
CAS 345
CAS 352/399
CAS 384
CAS 385
CAS 387
Three electives selected from CAS 200, 203, 214, 238, 240, 253, 260, 361, 362, 386, or an approved interim. Other CAS courses may be approved as electives in consultation with the student's academic advisor.

Cognates

Biology 115
English 334
Mathematics 143
Psychology 201
Physics 223

SPEECH PATHOLOGY AND AUDIOLOGY

Students who wish to enter professions dealing with speech pathology and audiology may qualify for the degree of Bachelor of Arts in Speech Pathology and Audiology. The program prepares students for graduate work in speech pathology or in audiology. Students should apply to accredited graduate programs during the fall semester of their senior year. Admission into graduate programs in speech pathology or audiology is very competitive. Students must have a minimum of a 3.0 grade point average to be considered. The advisors for the program are J. Vander Woude and P. Goetz of the Communication Arts and Sciences Department.

The liberal arts requirements include one course in each core category: Developing a Christian Mind, First-Year Prelude, Written Rhetoric, Research and Information Technology, History of the West and the

World, Philosophical Foundations, Biblical Foundations I or Theological Foundations I, Biblical Foundations II or Theological Foundations II, Societal Structures in North America, Literature, Foreign Language, The Arts, Cross-Cultural Engagement, and three semester hours in the Health and Fitness category. Other specified core courses that also serve as cognates for the major are: CAS 140, 352, Psychology 151, Mathematics 143, Physics 223 and Biology 115. Additional required cognates include Psychology 201 and English 334.

THEATRE MAJOR

CAS 140
CAS 203
CAS 217
CAS 218
CAS 219
CAS 316
CAS 320
CAS 321
CAS 352
One course selected from CAS 238, 327, or 383
One course selected from CAS 248, 319, or 323
Two CAS electives, one of which may be an interim

BUSINESS COMMUNICATION GROUP MAJOR

CAS 140
CAS 352
One course selected from CAS 101 or 240
Two courses from CAS 253, 260, 285, 305, 354, or 399
One course from CAS 200, 248, 262 or English 262
Business 160
Business 203
Business 380
Economics 221 (Grade of C required)
Economics 222
One course from Business 365, 381, or 382
One Economics or Business elective at the 300 level

Cognates

Mathematics 143, 243, or 343
Three hours of computer science, including Computer Science 130

DIGITAL COMMUNICATION GROUP MAJOR

CAS 140
CAS 141
CAS 230
CAS 238
CAS 248, 249, or 250
CAS 305
CAS 330
CAS 352
Information Systems 151
Information Systems 153
Information Systems 171
Information Systems 221
Information Systems 141
Information Systems 171
Information Systems 337
Information Systems 341
Information Systems 333
Computer Science 108
Computer Science 262
Computer Science 295 (3 semesters in the junior and senior years)
Computer Science 384
Mathematics 132
Mathematics 143

CAS MINOR

CAS 140
CAS 200
CAS 203 or 217
CAS 230 or 254
CAS electives (6 semester hours)

MEDIA STUDIES MINOR

CAS 230
One film course
One mass media course
Four electives from film and mass media

THEATRE MINOR

CAS 203
CAS 217
CAS 218
CAS 219
CAS 220
CAS 316
*CAS 319
*CAS 320 or 321

*For the Education option the following courses replace CAS 319 and CAS 320/321:

CAS 204
CAS 214
**Note: The education option is NOT approved for state teacher certification at this time.*

ELEMENTARY EDUCATION CAS MINOR

CAS 140
CAS 190
CAS 203
CAS 204
CAS 214
CAS 215
CAS 217
One of the following: CAS 218 or 316 or an approved interim

SECONDARY EDUCATION CAS MINOR

CAS 101
CAS 140
CAS 190
CAS 203
CAS 204
CAS 217
One of the following: CAS 218 or 316 or an approved interim

Prerequisite to admission to any of the department's specializations is CAS 140, one other CAS course, and a minimum average GPA of 2.0 for CAS courses completed.

The core requirement in Rhetoric in Culture may be met by CAS 101, 140, 141, or 214. The department offers an exemption exam for CAS 101.

ELEMENTARY EDUCATION FINE ARTS GROUP MAJOR AND MINOR

All Fine Arts Group Majors must complete at least 36 semester hours of courses in Art, Music, and Communication Arts and Sciences. All minors must complete at least 24 semester hours of courses in these three areas. All majors and minors must take Art Education 315, Communication Arts and Sciences 214, and Music 238. In addition, students majoring in Fine Arts must complete a sequence of courses from two of these disciplines chosen in consultation with a fine arts education advisor. Students minoring in fine arts must complete a sequence of courses from one of these disciplines and some additional electives chosen in consultation with a fine arts advisor. Fine Arts Advisors: J. VanReeuwyk, Art; R. Buursma, Communication Arts and Sciences; and P. Hash, Music.

COURSES

101 **Oral Rhetoric** (3). F and S. Students examine the principles of oral and visual rhetoric in this course, with an emphasis on guided practice in the development of effective speeches. The course leads students to understand the role of rhetoric in society, to think critically about rhetorical situations and practices, and to gain proficiency in the art of rhetoric.

140 **Communication and Culture** (3). F and S. This course examines the ways in which communication is used to create, maintain, and change culture. Students have the opportunity to apply a basic understanding of the concepts of communication and culture to a range of contemporary social issues, cultural texts, and communication practices. Emphasis is given to rhetorical and discussion methods to help students learn about analyzing and constructing oral and written arguments and to work cooperatively doing a research project for class presentation.

141 **Visual Rhetoric** (3). F and S. This course is a study of the rhetoric of images, how images create meaning, and how images are used to persuade. It leads students to understand the relationship between the rhetoric of images, the various audiences for those images, and their social contexts. Students learn to critique the construction of images, the ethical use of images, and the various meanings of images.

145 **Introduction to Film** (3). F and S. A study of film as an art form and cultural phenomenon, including dramatic, visual, and sonic elements, theme and focus, acting, and directorial style. Topics covered include the materials and methods of filmmaking, the major styles and genres of film, and the relationship of film to American and world culture. Course work includes a mandatory weekly screening (lab) and readings in the history, theory, and criticism of film.

190 **Introduction to Video Production** (4). F. and S. An introductory course in film-style

production in the medium of digital video, with instruction in all of the elements of production, including scriptwriting, videography, sound, lighting and editing. Students will produce a series of exercises and a short finished video. All equipment is provided.

200 **Advanced Oral Rhetoric** (4). S. Composition and presentation of types of speeches, participation in various types of speeches, participation in various types of discussion, readings in rhetorical theory, and criticism of selected contemporary speeches. Prerequisite: CAS 101, or equivalent.

203 **Introduction to Performance Studies** (3). F and S. An introduction to performance as a means of analyzing, appreciating, and celebrating literature. By providing training in the principles and techniques of performing literature before an audience, this course expands students' understanding of the relationships between text and performance, literature and human action, and written and oral forms of discourse. Genres of literature examined include poetry, prose, and oral history. This course is designed for students considering careers in theatre, rhetoric, radio, television, or education.

204 **Directing Co-Curricular Programs** (1). F. This course explores how co-curricular programs, such as forensics and debate, are organized, administered, and implemented in schools. Students will explore the principles and rationale behind such programs and develop the instructional and assessment skills required to facilitate them. Students will participate in school settings.

205 **American Voices** (3). F. Alternate years. This course examines American oratory as an art form, an influence on the American experience, and a reflection of American culture. Students will develop an understanding of oratory as an aesthetic and practical art, deepen their knowledge of the American rhetorical tradition in its historical and intellectual contexts, and learn how the art of public speaking shapes our understanding of ourselves and our world. Emphasis is given to methods of critical listening and analysis and to how oratory has been transformed by the electronic age and its focus on the image.

210 **Anatomy and Physiology of the Speech, Hearing, and Language Mechanisms** (4). S. A study of the anatomic and physiologic bases for the development and use of speech, language, and hearing. The course focuses on the central and peripheral auditory mechanisms of the human body, and on the respiratory, phonatory, and articulatory mechanisms required for speech production.

211 **Argumentation and Advocacy** (3). S. A study and application of basic principles of argumentation and advocacy. This course focuses on the dynamics of oral argument—ethical dimensions, use of language, informal logic, use of evidence and appeals, structure, and interactions with other arguments. Through analysis and practice, students will learn not only how to argue within academic contexts, but how to apply argumentative reasoning to everyday communication. Prerequisites: CAS 101 or permission of the instructor.

212 **Speech and Hearing Science** (4). F. Application of the scientific method to the studies of hearing, speech perception, and production. Topics include the introduction to basic acoustics, acoustic theory of speech perception and production, psychophysical methods of measuring hearing thresholds, acoustic phonetics, and synthesized speech.

214 **Creating Communication Arts in the Classroom** (3). F and S. This course addresses how the communication arts, such as creative drama, reader's theater, and puppetry facilitate learning in educational settings. Students learn to analyze verbal and non-verbal communication; they engage in the strategies of rhetoric (such as organization, invention, and style) appropriate to the learning process; and they apply these skills and knowledge in school settings.

215 **Introduction to Speech Pathology and Audiology** (3). F and S. A general introduction to speech-language pathology and audiology. These rapidly growing interdisciplinary professions are devoted to helping individuals manage or overcome communication challenges. Communication is a God-given gift that allows us to be social beings. When people have difficulty communicating, it affects almost all aspects of their lives. Students will gain a general understanding of prevention, evaluation, and rehabilitation is-

sues for persons with speech, language, and hearing disorders in clinical and educational settings.

216 **Phonetics** (3). F. A study of phonetic theories and the use of International Phonetic Alphabet symbols in analyzing, categorizing, and transcribing the sounds of American English. The course emphasizes understanding of the processes involved in the production of specific phonemes.

217 **Principles of Theatre** (3). F. This course studies the theatre through analysis of its artistic principles, genres, and forms. This foundational course concentrates on script analysis, major classical and modern theory, and critical methodology.

218 **Principles of Acting** (3). S. An introduction to the art of acting. Through readings, discussions, and numerous in-class exercises the students will become acquainted with major acting theories. The course is for students interested in theatre-related professions, as well as for students wishing to deepen their understanding of theatre and dramatic literature. Prerequisite: CAS 217 or permission of the instructor.

219 Principles of Production Design (3). F. An introductory study of the basic principles, theories, and applications of technical production and design for theatre, television, and film. Includes lectures, lab demonstrations, and contextual readings, and seeks to introduce students to all aspects of the craft, including scenic, property, costume, make-up, sound and lighting production, while comparing the distinct visual media of theatre, television, and film. Prerequisite: CAS 217.

220 **Calvin Theatre Company** (1). F and S. Membership in the class is limited and is determined annually by audition/interview. The members will be given training in the various practical aspects of the production of drama. Students may participate more than one year, but not more than six semester hours may be applied to the minimum requirements for graduation, and no more than three to the major. Prerequisite: A GPA of 2.0 or higher.

222 **Calvin Media Company** (1). F and S. Students will participate in film, radio and television productions. Students may participate more than one semester, but no more than four semester hours may be applied toward major or graduation requirements. Permission of instructor required.

230 **History of North American Media** (3) F and S. This course emphasizes changes in the means of communication, the control of media systems, the audiences for media products, and the changes introduced into North American life (Canadian, Mexican, U.S.) by the press, telegraph, telephone, phonograph, photograph, cinema, wireless, radio, television, cable and satellite, and computers. It concentrates on the history of technological development, programming, audience development, representation of constituent groups in society – especially minorities – and changes in law and regulation that have affected media institutions.

238 **Theory and Communication** (3). F and S. An examination of the significance and role of theory in understanding the nature of human communication. The course focuses on the fundamental elements of communication processes, the assumptions that underlie communication theory, the similarities and differences between theoretical approaches, and the means of evaluating theoretical perspectives, including a Christian critique of communication theories. Prerequisite: CAS 140 or 141 or consent of instructor.

240 **Group Communication** (3). F. Small group communication theory and practice. Students participate in group projects leading to class presentations. Topics include leadership, discussion, roles, consensus, organization, decision-making, leadership, and persuasion. Standards for ethical conduct are considered throughout the course.

248 **Writing for the Media** (3). F. and S. An introduction to the content, styles, and formats of media scripts. The course emphasizes the differences in media writing compared with more familiar forms of writing, the role of the script as text in producing media programs, the styles of writing used (journalistic, dramatic, polemical, and emotive), and the technical requirements for scripts used to focus the work of directors, actors, camera, and sound technicians, editors and mixers in creating a media product. Also listed as English 248. Prerequisite: English 101. Fall Topics: Broadcast Journalism and Playwrit-

ing. Spring Topics: Broadcast Journalism and Screenwriting.

249 **Audio Design and Aesthetics** (3). S. An introduction to the aesthetic principles that govern the production of media programs, focusing on sound. Students produce a variety of short audio programs in lab situations. The course also introduces students to the process by which media programs are produced, the aesthetic and ethical challenges that this process demands, and how Christians working in the media should respond to such demands.

250 **Multi-Camera Production** (3). F. An introduction to the theory and practice of studio-based video production. Various program formats are discussed and evaluated in light of particular communication principles and needs. Students gain experience with stationary video cameras, recorders, switchers and related technologies. Performance for the camera, studio lighting, audio recording and mixing principles are analyzed and demonstrated. Prerequisite: CAS 190 or permission of the instructor.

253 **Intercultural Communication** (3). F and S. An examination of the anthropological principles relating to cross-cultural communication. This examination requires an extensive comparison of the components of cultural systems and the nature of cultural dynamics. The areas of application include government, business, Peace Corps, development, and mission work, with special emphasis on the last two. Special topics include developing an appropriate attitude regarding indigenous cultures and the management of culture shock. Also listed as Sociology 253.

254 **Media Criticism** (3). F and S. The theory and practice of media criticism. This course develops a Reformed lens for consumers and producers of media to evaluate mass media on behalf of church and society. Students write audience-focused reviews and evaluate others' criticism of media such as television, radio, popular music, and new media technologies (including the Internet, digital music, video games, and blogs). Prerequisites: ENGL 101 and CAS 140 or permission of the instructor.

255 **Documentary Film and Television** (4). S. An examination of the history, aesthetics, ethics and cultural and institutional functions of documentary film and television. Course includes a mandatory weekly screening (lab).

260 **Interpersonal Communication** (3). S. The interpersonal communication opportunities and problems faced by Christians as they seek to live the life of faith in contemporary society. The course focuses on the theories and the practice of interpersonal communication. Topics include the elements of dyadic communication, shyness, gender, conflict management, and relational enrichment.

262 **Business Communication** (3). F and S. This course will instruct students in the theories, principles and practices of business communication. Subject matter will include organizational culture, communication ethics, conflict negotiation, public presentations, appropriate uses of visual aids, listening, interviewing, and business writing. Prerequisite: CAS 101 and English 101. Cross listed with ENGL 262.

270 **Communication and Gender** (3). F. A study and Christian evaluation of the relations between communication and gender, especially in interpersonal relationships, family, business, religious organizations, and educational institutions and religious settings.

281 **American Film** (4). F. The study of American film as an art form, including technology, industry, and the system of representation and communication from the silent era to the present. This course investigates how Hollywood films work technically, artistically, and culturally to affirm and challenge images of America. Films considered represent major expressions of the classical Hollywood style and diversions from that style. Topics include film technique and style, narrative conventions and genres, the Hollywood studio and star systems, directors, and ideologies.

282 **World Cinema** (4). S. An introduction to significant film movements outside the United States. Topics include the early history and development of basic cinematic principles, the differences between the "Hollywood style" and the narrative forms developed in Europe, Asia, and elsewhere, and the response of various film industries to the dominance of the American cinema.

284 **Critical Approaches to Film** (4). F. An introduction to the key concepts and cultural paradigms employed in the study of film. Students are introduced to the diverse ways in which films are examined and critiqued, central theoretical, ethical, and critical issues surrounding the study of film, and major film theories based on cognitive, psychoanalytical, ideological, semiotic, structural, and feminist perspectives. Various schools of film criticism (e.g., formalist, auteur, genre, humanist, and religious) are considered. Prerequisite: CAS 145, 281, or permission of the instructor.

285 **Advertising and Public Relations** (3). F and S. How and why organizations use advertising and public relations to influence various publics. The course emphasizes the historical development of advertising and public relations, as well as current issues in these industries.

290 **Video Production II** (3). F and S. An intermediate-level course in video production. Course includes further development of technical and creative skills, with special emphasis on the writing, design and production of documentaries and narrative videos. Prerequisite: CAS 190 or permission of instructor.

296 **Film as a Narrative Art** (3). F. In-depth examination of the art of narrative film, focusing each semester on one or more directors, genres, or styles of filmmaking. The course pays particular attention to narration and narrative structure, characterization, conflict, setting, and point of view and also acquaints students with literary adaptation and with the contribution of film image and sound to narrative development. The course emphasizes the development of student skills in writing about film. Cross listed with ENGL 296.

303 **Community-based Drama** (3). This course combines readings and field work in ethnography and community-based drama with performance as a method of cultural analysis, as a means of interpreting and conveying cultural texts, and as a tool for creating of empathy. Topics include cross-cultural performance, storytelling, conversational analysis, community-based drama facilitation, and the creation and performance of oral histories and personal narratives as theatrical texts. Not offered 2007-2008.

305 **Persuasion and Propaganda** (3). F and S. The theory and practice of persuasive communication. Topics include theory and research of persuasion, improving personal persuasive abilities, recognizing and resisting persuasive strategies, and the role of propaganda in modern society. Examples for analysis are taken from advertising, religion, sales, political campaigns, and democratic and totalitarian propaganda.

311 **Child Language Development** (3). S. An examination of early language development research in phonology, morphology, syntax, semantics, and pragmatics. Theories of language acquisition and implications for practice are examined. Particular attention is given to the role of adults in language development and to the relationship between language development and cognitive development. Also listed as Education 311. Prerequisites: An introductory course in Psychology or Education or permission of the instructor.

316 **Principles of Directing** (4). An introduction to the theory of directing. Through readings, play attendance, discussions, and exercises, the students will develop a basic understanding of the directing process and an appreciation for the art of directing. This course is for students interested in theatre-related professions as well as for students wishing to deepen their understanding of theatre and dramatic structure. Prerequisites: CAS 217 and 218, or permission of the instructor. Not offered 2007-2008.

318 **American Politics and Mass Media** (3). S. A survey of the relationship between American politics and the mass communications media. The course covers the way the federal government, through its regulations and its dissemination of information, affects the operations of the media, and how the media influence the social and political values of Americans and the functioning of the political system. Also listed as Political Science 318.

319 Topics in Advanced Production Design (3). S. An advanced study of the principles of production design for the theatre, television and film. This rotating topics course (scenic design/art direction, lighting design, and costume design) builds on concepts from CAS 219. Includes lectures, workshops, discus-

sions, demonstrations, play reading and design projects, with special attention to the visual communication of design ideas in the form of written concept descriptions, drawing, rendering, painting, drafting and modeling. The course may be repeated for credit for each of the three topics. Prerequisite: CAS 219, or permission of the instructor. Topic: Costume Design.

320 **History of Theatre and Drama I** (3). S. Alternate years. A historical and analytical study of theatre and drama from its origins to the nineteenth century.

321 **History of Theatre and Drama II** (3). Alternate years. A continuation of CAS 320. A historical and analytical study of theatre and drama from the nineteenth century to the present. Not offered 2007-2008.

323 **Scene Studies for Actors and Directors** (3). S. An advanced study of the principles of acting and directing for the theatre and television. Through lectures, demonstrations, readings, rehearsals, and exercises, students will develop competence in the aesthetic processes of acting and directing. Students are required to produce performance quality work for both stage and camera. Prerequisites: CAS 218 and 316.

327 **Rhetorical Criticism** (3). S. A study and application of principles for the analysis and evaluation of public discourse. Working within the humanistic tradition, students will investigate how humans use symbols to assign meaning to the world and attempt to induce others to share those meanings. The course will help students explain and interpret the dynamic relationship between author, text, context, and audience involved in any rhetorical act. Students read a variety of types of criticism and develop their own strategies for analysis.

330 **Global Media, Global Culture** (3). This course examines communication occurring across international borders, with special attention to the development of a global culture based in media flow. Topics include the history, use and regulation of international communications technologies, information and cultural impacts of media flow, international law, and the role of media in international politics, economics, culture, and religion. It includes significant attention to the development of global media organizations and their impacts on indigenous culture. Not offered 2007-2008.

344 **Evaluation Procedures in Audiology** (4). S. The study of the classification of hearing disorders and the behavioral and electrophysiological measurement of hearing, including subjective and objective testing procedures. This is a distance education course transmitted to Calvin from Michigan State University. Students attend a laboratory session at MSU one day a week. Prerequisites: CAS 210 and 212.

345 **Aural Rehabilitation** (4). F. The study of the fundamental aspects of auditory rehabilitation, including individual and group amplification systems, auditory training, speech reading, and counseling with children and adults. This is a distance education course transmitted to Calvin from Michigan State University. Prerequisites: CAS 210, 212 and 344.

346 **Internship in Communication** (4). F and S. Students work in profit or non-profit communication under the supervision of a professional. Typical placements include public relations or advertising agencies, broadcast or cable stations, video production companies and the like. A journal and seminar participation are required. Grading is based on the professional's evaluation, the student's daily journal, and seminar participation. Prerequisites: Junior or senior status, 2.5 GPA, and permission of the department.

351 **Advanced Media Production** (3). F and S. The intensive study and production of video in a particular style or genre. The course focus, designated by a subtitle, will alternate among documentary, narrative and other styles and genres of video and television, and may include field and/or studio production and multimedia. The style or genre will be thoroughly investigated, with emphasis on its creative, ethical, and technical requirements and skills. Students will produce their own work in a digital video format. May be repeated for credit when course focus varies. Prerequisite: CAS 250 or CAS 290 or consent of the instructor.

352 **Communication Ethics** (3). *F and S. This course examines the moral dimensions of human communication, exploring dilem-

mas in interpersonal, group, and mediated communication, with special reference to problems encountered in communications professions. While wrestling with cases and controversies, students also review and apply historic criteria for coming to reasoned moral judgment, including the contemporary voices of feminist, determinist, post-modern, and naturalist ethicists. Major Christian positions are reviewed and applied. Case studies are the focus, with a variety of learning opportunities and encouragement for students to pursue personal learning objectives. Prerequisites: Biblical Foundations I, Developing a Christian Mind, and Philosophical Foundations.

354 **Communication Policy and the Public Sphere** (3). The course focuses on the conflict between expectations of communication in society and the realities of politics and economics. It examines specific disputes across a broad range of communications activities, including the arts and media, and details the different points of view brought to bear in creating and maintaining public debate. It includes issues such as the representation of social or ethnic groups in ownership of media and in communications professions, the interplay of social responsibility theory and the development of media monopolies. It also applies the principle of social justice in an examination of these political and economic issues. Not offered 2007-2008.

361 **American Sign Language I** (3). F. An introductory course in the use and comprehension of American Sign Language. Students will learn finger spelling and basic signs. Additionally, students will be introduced to history of deaf communication, types and degree of deafness, general education issues, and insights into deaf culture.

362 **American Sign Language II** (3). S. A continuation of American Sign Language I. Students will improve their comprehension and use of American Sign Language, including increasing their use of sign vocabulary and grammar. Students learn to use creative expression, classifiers, body postures, and signing space. Students will investigate the social, educational, and legal issues of the Deaf Community. Prerequisite: CAS 361 or permission of the instructor.

383 **Film Theory and Aesthetics** (3). S. Alternate years. An advanced study in film form and its implications, including narrative structure, editing and sound, acting, cinematography, production design, and their influence on viewers. The course also examines basic theoretical issues such as the relationships between film and reality, the nature of film as an art, adaptation, identification, and elicitation of emotional response. Prerequisites: CAS 284 and course work in the applied knowledge category, or permission of instructor. Not offered 2007-2008.

384 **Phonological Disorders** (3). F. A study of the nature and prevention of phonological disorders. This course introduces students to the theories associated with speech, sound development, dialectal variations, and the factors related to phonological disorders. Students will learn specific phonological assessment procedures and remediation principles for teaching the perception and production of speech sounds. Students also explore Christian responses to individuals with phonological disorders—responses that shape assessment and remediation principles. Prerequisites: CAS 215 and 216.

385 **Seminar in Language Disorders** (3). S. A study of the assessment and intervention in childhood language disorders in phonology, syntax, semantics, pragmatics, and morphology. The course introduces students to psychometric and descriptive assessment. Students also examine the integration of Christian faith and practice in intervention strategies that concentrate on improving communication between the child and the communication partners in the home and school settings. Prerequisites: CAS 215, 311, or permission of the instructor.

386 **Clinical Practicum** (2). F and S. An introduction to the clinical practice of speech-language pathology within a Christian perspective. Specifically, students will become acquainted with applied clinical procedures in speech-language pathology. This course includes observation and/or direct contact with clients under close professional supervision. Students may repeat this course up to four times. Prerequisites: a GPA of 3.0, CAS 215, CAS 387 and instructor approval prior to registration.

387 **Neurogenic Disorders** (3). S. A study of the nature, prevention, and treatment of neurogenic disorders. This course introduces students to the theories associated with neurogenic disorders. Students will learn specific assessment procedures and remediation principles for aphasia, apraxia, dysarthria, and traumatic brain injury. Students also explore Christian responses to individuals with disorders—responses that shape prevention, assessment, and remediation principles. Prerequisites: CAS 210, 215, and 216.

390 **Independent Study**. F, I, and S. Independent study of topics of interest to particular students, under the supervision of a member of the department. Prerequisite: Permission of the instructor.

395 **Special Topics in Communication** (3). F. Topic: Lab Theatre.

395 **Special Topics in Communication** (3). S. Topic: Popular Music Studies.

399 **Senior Seminar** (3). F and S. This capstone course examines the application of a Reformed worldview to understanding communication and culture, especially communication-related vocations. It concentrates on the relationships between the Christian faith and professional communication and focuses on the ways in which communication-related professions define professional activity and on the responsibilities that Christians have to work in and through professions. It also examines a Christian view of success, the importance of understanding one's gifts, finding and using mentors, committing to a location, mastering persuasive, honest interviewing and resume-writing, networking with reciprocity, overcoming Christian tribalism in a world economy, and being patiently flexible in the face of economic and cultural changes. Prerequisites: Biblical Foundations I or Theological Foundations I, Developing a Christian Mind, and Philosophical Foundations.

Computer Science

*Professors J. Adams, E. Fife, *D. Laverell, H. Plantinga, K. Vander Linden (chair)*
Assistant Professors P. Bailey J. Frens,
J. Nyhoff
Adjuncts R. Pruim, M. Stob

The department offers a variety of major concentrations for students who wish to pursue a computing-related vocation. These include the Bachelor of Computer Science degree for students who wish to focus primarily on computer science, the Bachelor of Arts and Bachelor of Science in Computer Science for students who wish to combine a study of computer science with another discipline, the Bachelor of Arts in Digital Communication for students who wish to combine a study of computing applications with communications, and the Bachelor of Arts in Information Systems for students who wish to combine a study of computing applications with business and management. The Bachelor of Computer Science degree is accredited by the Computing Accreditation Commission of ABET. The department also offers minors in computer science, computer science for students in the secondary education program, and information systems. More information about the departmental programs is available at the departmental website (cs.calvin.edu).

BACHELOR OF COMPUTER SCIENCE (B.C.S.)

Computer Science 108
Computer Science 112
Computer Science 212
Computer Science 214
Computer Science 232
Computer Science 262
Computer Science 295 (3 semesters in the Junior and Senior years)
Computer Science 384
Computer Science 394 or 396 and 398
Four Computer Science, Engineering or Information Systems electives. These electives must be chosen from Computer Science 312, 320, 332, 342, 344, 352, 372, 374, 382, 386; Information Systems 333, 337, 341, 371; Engineering 304, 325; or an approved interim. At most one elective can be taken from IS 333, 337, and 341.

Cognates

CAS 101
Engineering 220
Mathematics 156 and 256
Mathematics 161 and 162
Mathematics 243
Three college laboratory science electives, including two (but no more than two) courses from one department. These electives may be chosen from: Astronomy 211 or 212 (but not both); Biology 141, 242, 243; Chemistry 103, 104; Physics 133, 134, 235.

BACHELOR OF ARTS IN COMPUTER SCIENCE (B.A.)

Computer Science 108
Computer Science 112
Computer Science 212
Computer Science 214
Computer Science 232
Computer Science 262
Computer Science 295 (3 semesters in the Junior and Senior years)
Computer Science 384
Computer Science 394 or 396 and 398
Three Computer Science, Engineering or Information Systems electives. These electives must be chosen from Computer Science 312, 320, 332, 342, 344, 352, 372, 374, 382, 386; Information Systems 333, 337, 341, 371; Engineering 304, 325; or an approved interim. At most one elective can taken from IS 333, 337, and 341.

Cognates

Engineering 220
Mathematics 156 and 256
Mathematics 161 (or Mathematics 132 with permission of the advisor)
Mathematics 143 or 243

A minimum grade of C (2.0) in 212, 214, 232 or 262 is required for admission to these concentrations.

Students completing at least 58 hours of mathematics or science may elect to receive the BS degree in Computer Science rather than the BA degree.

COMPUTER SCIENCE MINOR

Computer Science 108
Computer Science 112
Computer Science 212
Computer Science 214
Computer Science 232
Computer Science 384
One 200 or 300-level Computer Science course (of at least 3 credit hours), or a 300 level Information Systems course or Engineering 304 or 325.

MINOR IN COMPUTER SCIENCE FOR STUDENTS IN THE SECONDARY EDUCATION PROGRAM.

Information Systems 151
Information Systems 153
Information Systems 171
Information Systems 141
Information Systems 221
Information Systems 271
Computer Science 108
Computer Science 112
Computer Science 212
Education W10

Prior to the secondary education teaching internship, students must have the approval of the department. Criteria for approval are found in the *Teacher Education Program Guidebook*, available in the Education Department.

BACHELOR OF ARTS IN DIGITAL COMMUNICATION (group major)

Information Systems 151
Information Systems 153
Information Systems 171
Information Systems 141

Information Systems 221
Information Systems 271
Information Systems 337
Information Systems 341
Information Systems 333
Computer Science 108
Computer Science 262
Computer Science 295 (3 semesters in the Junior and Senior years)
Computer Science 384
CAS 140
CAS 230
CAS 238
CAS 305
CAS 330
CAS 352
One course from CAS 141 or 143
One course from CAS 248, 249 or 250

Cognates
Mathematics 132 and 143

BACHELOR OF ARTS IN INFORMATION SYSTEMS

Information Systems 141
Information Systems 171
Information Systems 271
Information Systems 333
Information Systems 337
Information Systems 341
Information Systems 371
Computer Science 108
Computer Science 262
Computer Science 295 (3 semesters in the Junior and Senior years)
Computer Science 384
Business 160
Business 203
One course from Business 315, 363, Economics 325 or 326
One course from Business 351, 360, 365 or 380
One course from Business 359 or Computer Science 394
Economics 221

Cognates
Mathematics 143 and 201

INFORMATION SYSTEMS MINOR

Information Systems 141
Information Systems 171
Information Systems 271
Computer Science 108
Computer Science 384
Information Systems 341
Business 160
Business 203

PHYSICS/COMPUTER SCIENCE GROUP MAJOR

Physics 133
Physics 134
Physics 235
Physics 381
Computer Science 108
Computer Science 112
Computer Science 214
One from Computer Science 212, Engineering 220, or an upper division computer-science elective
Physics or Computer Science electives (to provide a minimum of 24 semester hours in either physics or computer science)

Cognates
Mathematics 161
Mathematics 162
Mathematics 231 or 256
Mathematics 261 or 232

HONORS

Students wishing to graduate with honors in computer science can do so by completing the departmental honors program. In addition to the requirements of the college honors program, the Computer Science departmental honors program requires further coursework and a senior honors project. Details are available from the department website. This program requires careful planning to complete, and students should normally apply for admission to the departmental honors program in their sophomore year.

COURSES

Computer Science

104 **Applied C ++** (2). F. An introduction to problem solving and program design for engineers and scientists using the language C++. Coverage includes I/O, types and expressions, libraries, functions and parameter passing, control structures, files, array processing, and classes (including the use of templates). Prerequisite Mathematics 132 or 161, which may be taken concurrently.

108 **Introduction to Computing** (4). F and S. An introduction to computing as a problem-solving discipline. A primary emphasis is on programming as a methodology for problem solving, including: the precise specification of a problem, the design of its solution, the encoding of that solution, and the testing, debugging and maintenance of programs. A secondary emphasis is the discussion of topics from the breadth of computing including historical, theoretical, ethical and biblical perspectives on computing as a discipline. Laboratory. Meets the Information Technology core requirement.

112 **Introduction to Data Structures** (4). F and S. A continuation of 108 or 104, using C++ classes to introduce and implement the elementary data structures including lists, stacks, queues and trees. Advanced programming techniques such as indirection, inheritance and templates are introduced; along with an emphasis on algorithm analysis, efficiency and good programming style. Laboratory. Prerequisite: 108, 104, or permission of the instructor.

212 **Data Structures and Algorithms** (3). F. A systematic study of algorithms and their application to data structures, including arrays, lists, trees, heaps, hash tables and graphs. Algorithms and data structures are analyzed in their use of both time and space, and the choice of data structure in problem solving is studied. Theoretical issues, such as optimality, best and worst-case performance and limitations of algorithms are studied, as well as implementation issues. Prerequisite: 112 and Mathematics 156. (Mathematics 156 may be taken concurrently).

214 **Programming Language Concepts** (3). S. Design principles and implementation issues of contemporary programming languages. Topics covered include programming paradigms, the syntax and semantics of programming language constructs, translation of high level languages to machine language, and formal languages. Several different languages are introduced and examined to illustrate these topics. Laboratory. Prerequisite: 112 or 212.

216 **Programming Challenges** (1). A hands-on laboratory forum to use the data structures and mathematics of other courses on a variety of problems, ranging in difficulty. The course consists of working on a variety of problems and examining techniques used in their solution. Students may take this course multiple times; the course does not count towards the major. Grading is pass/fail. Prerequisite: 212 and Mathematics 156, which may be taken concurrently. Not offered 2006-2007.

232 **Operating Systems and Networking** (3). S. An introduction to the major concepts modern operating systems must address. Topics include operating system structure, processes and threads, inter-process communication and synchronization, scheduling, main and secondary memory management, file systems, networking, client-server systems, distributed systems. Prerequisite: 112 and Engineering 220.

262 **Software Engineering** (3). F. A survey of software engineering principles including software project management, system and requirements analysis, the design and implementation of software, design patterns, software quality assurance and testing, software maintenance and the use of CASE tools. Prerequisite: 108 and at least junior standing.

295 **Computing Seminar**. No Credit. F and S. This seminar explores a range of current topics in computing and information systems. Topics in both research and practice will be covered. All department majors must register for 3 semesters in their junior and senior years; honors students must register for all 4 semesters. Freshmen and sophomores intending to major in a computing-related discipline are encouraged to attend.

312 **Logic, Computability and Complexity** (4). * F, even years. Topics from the theory of computation including finite state concepts, formal languages and grammars, computability, computational complexity. (Cross-listed as Mathematics 312). Prerequisite: Mathematics 256. Not offered 2007-2008.

320 **Advanced Computer Architecture** (3), * S, even years. Principles of computer design, instruction set design principles, instruction-level parallelism, cache principles, and multiprocessor systems. Prerequisite: Engineering 220.

324 **Cross Cultural Engagement across the Digital Divide** (1) SU-F, Pass/Fail. This practicum will engage students with mem-

bers of other cultures through Project Connect, a technical outreach service project. Students will be oriented to the digital divide issue in early summer, assist in the summer technical literacy courses to various underprivileged groups in the Grand Rapids area, and continue to support those groups in the following fall semester. Students will generally register for the fall semester. CCE credit will be awarded in the fall semester. Prerequisites: Senior status in CS, IS or ENGR, or permission of the instructor. Meets the cross-cultural engagement core requirement (CCE credit will be awarded in the fall semester).

332 **Advanced Computer Networks** (3). * F, even years. This course introduces the student to the field of computer networking. Students will develop an understanding of the general principles of computer communication as they are worked out in an appropriate protocol suite. Specific attention will be paid to principles of architecture, layering, multiplexing, addressing and address mapping, routing and naming. Problems considered include the writing of network software, the physical construction of networks, the Internet and its future development, and network security. Prerequisite: 232. Not offered 2007-2008.

342 **Database Management Systems** (3). * S, even years. An introduction to the structures necessary to implement a database management system. Topics include data models (including hierarchical, network and relational data models), normal forms for data relations, data description languages, query facilities. An introduction to existing database management systems is given. Laboratory. Prerequisite: 262.

344 **Artificial Intelligence** (3). * I, selected years. An introduction to artificial intelligence. Topics include problem solving, knowledge representation, planning, machine learning, natural language processing and robotics. Students will be introduced to programming techniques from AI such as heuristic search, expert systems and neural networks, as well as to AI's philosophical, psychological and religious context. Prerequisite: 214 (or 112 and permission of the instructor). Not offered 2007-2008.

352 **Computer Graphics** (3). * S, odd years. An introduction to interactive 2D and 3D computer graphics techniques such as transformations, lighting, shading and hidden surface removal; photorealistic rendering including ray tracing and image processing. Programming projects with graphics libraries such as Qt and OpenGL. Prerequisite: 212 and Mathematics 255 or 256. Not offered 2007-2008.

372 **Numerical Analysis** (4). * S, odd years. Analysis of errors in numerical methods, real roots of equations, approximations using polynomials, numerical integration, applications to differential equations, Lagrange and spline interpolation, least squares approximations, orthogonal polynomials and applications. (Also listed as Mathematics 335). Prerequisites: 104 or 108 and Mathematics 256 or 232. Not offered 2007-2008.

374 **High Performance Computing** (3).*F, oddd years. A study of architectures, algorithms and programming techniques that help minimize the execution times of computer programs that solve particular problems. Topics include high performance computer architectures, parallel programming techniques for distributed and shared-memory multiprocessors, code optimization and hands-on experience using the Calvin College supercomputer. Laboratory. Prerequisite: 112 and junior standing or permission of instructor.

382 **Special Topics in Computer Science: Compiler Design** (4). F, selected years. An introduction to the basic constructs of modern programming languages and to the techniques for implementing these in the machine language of a typical computer. Topics include grammatical structure, syntax, semantics, storage allocation, error detection, and object code generation. Prerequisite: Computer Science 214. Not offered 2005-2006. Not offered 2007-2008.

384 **Perspectives on Computing** (3). S. This course addresses social, ethical, legal and professional issues that arise in computer science from a Reformed, Christian perspective. Social issues concerning the computerization of society include privacy, security, the digital divide and changes in the way we receive information the way we relate with others. Ethical discussion starts with a survey of ethical theories and covers professional, ethical and legal issues in areas including intellectu-

al property, privacy, liability and professional codes of conduct. In addition, some foundational issues are covered, including materialist vs. Christian view of what it means to be a person. Prerequisite: last year of a computing-related program. Meets the Integrative Studies requirement.

386 **Computer Security** (4). F, even years. An introduction to the principles of computing security. Topics include encryption, protocols, security models, trusted systems, program security, network security, legal and ethical issues. Laboratory. Prerequisite: Junior standing and at least one of 232, 332, or Information Systems 333. Not offered 2007-2008.

390 **Independent Study** F, I, S.

394 **Senior Internship in Computing** (3). F and S. Interns will work 10-20 hours per week in a local business or non-profit organization under the supervision of a computing professional. The internship experience will give students the opportunity to apply skills and concepts acquired in the classroom to a real-world setting and to participate in the design and/or implementation of a significant computing application. The intern will be expected to maintain a reflective journal and complete a summary paper. Interested students should contact the instructor before registering for the course. Prerequisite: 262 and senior standing.

396 **Senior Project in Computing** (2). F. This is the first course of a two- semester sequence, in which the student will complete a department-approved computing project. This capstone experience will give students the opportunity to apply concepts and techniques learned in the classroom by developing a significant computing application. The first semester will typically focus on any necessary library research, design and prototyping; implementation and wiring should normally be done in the second semester. The student will submit regular progress reports to a supervising faculty member and submit a preliminary report on the project's status for evaluation by a departmental committee. Prerequisite: 262 and senior standing. Students may, with department permission, receive credit for 396/398 by taking ENGR 339/340.

398 **Senior Project in Computing II** (2). S. A continuation of 396. The student will submit regular progress reports to a supervising faculty member and submit a final report for evaluation by a departmental committee. Prerequisite: 396.

Information Systems

141 **Computing with Databases** (1) S. An introduction to information processing with databases. This course introduces table structure, keys, queries, reports and the relational database model. Prerequisite: Interdisciplinary 110.

151 **Computing Presentation** (1). F and S. An introduction to the use of presentation software and desktop publishing software. Students will use current software packages to create presentation materials and newsletters and brochures of publication quality. In addition to the mechanics of using the packages, layout and composition issues will be addressed. Prerequisite: Interdisciplinary 110.

153 **Computing with the Internet** (1). F. An introduction to the Internet- it's origins, current nature and prospects for the future; a study of resources and tools for using, managing and creating materials for the Internet and the World Wide Web. Topics include information search and retrieval, communication, hypermedia, scripting and cultural and ethical issues. Prerequisite: Interdisciplinary 110.

171 **Computing with Spreadsheets** (1). F and S. An introduction to numerical computation using spreadsheets, including basic operations, graphs and charts, decision making, data management and macros. Prerequisite: Interdisciplinary 110.

221 **Personal Computer Administration** (1). S. An introduction to the concepts and practice of configuring and administering a personal computer system. Topics include: initial configuration, system administration, hardware expansion and networking. Students will learn to set up and maintain a computer system for a home or office. Prerequisite: Interdisciplinary 110.

271 **Introduction to Information Systems** (4). F. This course introduces the field of Information Systems with particular emphasis on fundamentals of managing data resources as an operational and strategic asset within

an organization. Concepts are explored with hands-on exercises using desktop databases and spread sheets along with an introduction to visual programming. Further, students are exposed to a systems view of information through team-based projects. Each student is assigned a leadership position. The technologies include Microsoft Access, Excel, Visual Basic .Net, and open source alternatives. Laboratory. Prerequisite: IS 141 and IS171, BUS 160 or permission of instructor.

333 **Network Administration** (3). S. This course prepares students to set up and administer TCP/IP, Linux, and/or Microsoft networks. Topics include network protocols such as TCP/IP; networking hardware including wiring, interface, hubs, switches and routers; proxies; security and firewalls; social, legal and ethical issues. Prerequisite: 271 or Computer Science 108.

337 **Introduction to Website Administration** (3). F. This course prepares the student to administer a site on the World Wide Web. Topics include platform options; server installation and configuration; creating web documents; an introduction to web scripting; legal and ethical issues. Prerequisite: Computer Science 108, or permission of the instructor.

341 **Database Administration** (3). F. This course prepares students to set up and administer database servers and clients on a network. Topics include an introduction to database design; SQL programming; principles for interfacing with a database server using ODBC and Visual Basic; issues in data management, integrity and security; legal and ethical issues. Prerequisite: 141, 271 or permission of the instructor.

371 **Information Systems Leadership** (3). S, odd years. This course explores the role of the Chief Information Officer and the key Christian leadership issues within a technical environment. It emphasizes aligning IT to provide optimal value to organizational missions. It explores the economic considerations of IT management, including project budgeting, outsourcing analysis, financial ratios applied to technical investments and establishing service level agreements. The course will address these issues in the context of a significant, full-class project. Prerequisite: CS 262 or permission of the instructor. Not offered 2007-2008.

Dutch

Professor H. Aay (Frederik Meijer Chair of Dutch Language and Culture)
Associate Professor H. De Vries (chair, Queen Juliana Chair of the Language and Culture of the Netherlands)

Programs for students wishing to minor or major in Dutch are worked out for them individually by the department advisor. Semester programs, approved or endorsed by Calvin, are available to student in the cities of Leiden and Zwolle.

The cross cultural engagement requirement is met by the Dutch Interim Abroad (W 40).

DUTCH MAJOR (34 semester hours)

Dutch 101
Dutch 102
Dutch 201
Dutch 202
Six 300-level electives, one of which maybe an approved Dutch-language interim in the Netherlands.
Courses taken on semester programs in the Netherlands may apply, provided that students meet with department chair and gain approval for specific courses in advance.

DUTCH MINOR (25 semester hours)

Dutch 101

Dutch 102
Dutch 201
Dutch 202
Two 300-level electives
An independent study or an approved interim in the Netherlands.
Courses taken on semester programs in the Netherlands may apply, provided that students meet with department chair and gain approval for specific courses in advance.

NETHERLANDIC STUDIES MAJOR (33 semester hours)

Dutch 101
Dutch 102
Dutch 201
Dutch 202
Three 300-level Dutch courses, one of which may be an approved Dutch-language interim in the Netherlands.
Two courses from Art History 234, and then (optionally) Art History 237, an approved European History Course, an approved Religion course, Geography/Engineering and Dutch Landscapes Interim.
Courses taken on semester programs in the Netherlands may apply, provided that students meet with department chair and gain approval for specific courses in advance.

Prerequisite to a concentration in Dutch is a minimum average of "C" (2.0) in Dutch 101, Dutch 102, Dutch 201, and Dutch 202. Completion of Dutch 202 meets the foreign language requirement.

COURSES

101 **Elementary Dutch I** (4). F. An introductory course in the comprehension and use of spoken and written Dutch and an exposure to the people and culture of the Netherlands and Flanders, Belgium.

102 **Elementary Dutch II** (4). S. A continuation of Dutch 101.

201 **Intermediate Dutch I** (4). F. Further development of skills in speaking, listening, reading, and writing Dutch. Includes systematic grammar review and the introduction to finer points of grammar and idiomatic use of the language. Cultural topics are explored through film and short literary texts. Prerequisite: Dutch 102 or permission of the instructor.

202 **Intermediate Dutch II** (4). S. A continuation of Dutch 201. Further development of skills in speaking, listening, reading, and writing Dutch. Ongoing mastery of grammar and idiomatic use of the language. Cultural topics are explored through film and short literary texts.

305 **Dutch Literature I** (3). F. Study and discussion of several Dutch literary texts representative of the classical and modern periods of Dutch literature. Offered based on demand. See departmental chair.

306 **Dutch Literature II** (3). S. A continuation of Dutch 305.

309 **Netherlandic Civilization** (3). A study conducted in the English language of several important aspects of Netherlandic civilization: Literature, history, religion, art, architecture, social structure, and education. Offered based on demand. See departmental chair.

390 **Independent Study**. Prerequisite: Approval of department chair. *Staff*.

Economics

Professors D. Cook (chair) R. Hoksbergen, K. Schaefer, J. Tiemstra, E. Van Der Heide, S. Vander Linde
Associate Professor A. Abadeer
Assistant Professors L. Muller, A. Samuel

The department has structured its major areas of study so that students may design programs that best prepare them for their chosen career fields. It offers three majors leading to a Bachelor of Arts degree — economics, a group concentration in the social sciences, and a group concentration involving mathematics and economics. Group concentrations must form a coherent, planned program approved by an advisor. The department offers a general and a teacher education minor in economics.

Only one interim course may serve as an elective for any major or minor in the department, and only if the interim course is designated as an elective by the department. The department offers a variety of experiential learning options that can be integrated into any of the department's majors.

ECONOMICS MAJOR

Economics 221
Economics 222
Economics 323 or 325
Economics 324 or 326
Economics 395
Three from Economics 331-343
Two department electives

Cognates
Mathematics 143, 243, or 343
Mathematics 132 or 161
Information Systems 171
One from Information Systems 151, 153, 221, 141, 271
Or Computer Science 104, 108 or 112

ECONOMICS MINOR

Economics 221
Economics 222
One from Economics 323-326
Three from Business 203, Economics 323-343

SOCIAL SCIENCE GROUP MAJOR— ECONOMICS EMPHASIS

Economics 221
Economics 222
One from Economics 323-326
Two from Economics 323-343
Four courses from one of the social sciences (sociology, psychology, political science or history)
Two department electives

Cognates
Mathematics 143, 243 or 343
Information Systems 171
One from Information Systems 151, 153, 221, 141, 271 or Computer Science 104, 108 or 112

For information on the following major please contact the department Chair:

Mathematics/Economics Group Major

SECONDARY EDUCATION ECONOMICS MINOR

Economics 221
Economics 222
Economics 338
Economics 339
IDIS 375
A minimum of four additional semester hours from within the department. One advisor approved interim may be included.

ELEMENTARY SOCIAL STUDIES GROUP MAJOR

Students must take two specified courses from each of the following four disciplines: Economics, Geography, History, and Political Science. (Specific course choices are listed in the *Teacher Education Program Guidebook*). In addition, students must complete a sequence of courses from one of these disciplines chosen in consultation with a social studies education advisor. Advisors: D. Miller, D. Howard, and R. Schoone-Jongen, History Department.

ELEMENTARY SOCIAL STUDIES GROUP MINOR

Economics 221
Economics 222
Geography 110
One from Geography 210, 230, 310, or 320
History 151 or 152
History 229
Political Science 101
Political Science 202

Prerequisite for admission is a minimum grade of "C" (2.0) in Economics 221. The core requirement for "Social Structures in North America" is met by Economics 151 or Economics 241 or, for students majoring or minoring in economics or business, Economics 221.

COURSES

Economics

151 **Principles of Economics** (3). F and S. The institutions of the North American market economy are studied, examining the determinants of resource allocation, income distribution, prices, production, income and employment levels, and economic growth. Topics include international economic relations and the role of government in the economy. Christian ideas about justice, freedom, and stewardship are applied to economic questions. Students intending to major or minor in economics or business should not take this course, but should take Economics 221 to satisfy this core requirement.

200 **Calculus Applications for Business** (1). An introduction to differential calculus and optimization techniques used in business applications. The concept of changes at the margin and derivatives will be applied to problems in operations management, management decision theory and economic analysis. Students will also study constrained and unconstrained optimization and use it to solve problems in areas such as product pricing, production, capital budgeting, and assessing risk in markets. This course will generally be taken concurrently with Economics 221 by students not presenting a regular calculus course.

221 **Principles of Microeconomics** (4). F and S. This course involves a study of the institutions of mixed-market economies such as those of North America, their role in resource allocation, and the determination of prices, outputs, and income distribution. Topics include the role of the government in the economy and environmental impact of economic activity. Christian views concerning justice, freedom, stewardship, and the nature of human beings and society are applied to economic analysis and issues.

221H **Principles of Microeconomics** (4). The honors section of "Principles of Microeconomics" is similar to other sections regarding content and general course requirements. However, the honors section will be conducted with greater opportunities for group discussion and classroom reporting of student research results. This course meets a core requirement in the Societal Structures category. Enrollment in honors ECON 221 is limited to 20 and is normally not open to first-year students. Not offered 2007-2008.

222 **Principles of Macroeconomics** (3). F and S. A continuation of Economics 221. A study and evaluation of the determination of national income, including analysis of consumer spending and saving patterns, business investment, government spending, taxation, monetary policy, unemployment, and inflation. The course includes an introduction to international trade and finance. Prerequisite: Economics 221.

237 **Regional Economies of the World** (3). F. This course focuses on the economies of a particular region of the world. African, Asian and Latin American economies are studied on a rotating basis. For fall 2007 the course examines economies Eastern and Southeastern Asia. The course begins with a study of basic differences in economic systems and institutions of modern economies. These concepts are then applied to more detailed historical study of a number of key Asian economies, such as The Peoples' Republic of China, Japan, South Korea, Indonesia, Taiwan, Singapore, Thailand, and the Philippines. The possibility of a distinct Asian Development Model will be considered. This course satisfies the Global and Historical Studies core requirement if a student has previously taken a World History class. Prerequisite: An introductory level course in economics.

241 **Health Economics and Health Policy** (3). S. An introduction to economics in the context of a study of health economics and health policy, with detailed focus on the U.S. health care system. The intent of the course is to develop an understanding of economic principles that can be used with other criteria to evaluate the historical and future direction of the U.S. health care system. Topics include efficiency and the equity of resource allocation, ethical perspectives of health care access, history and reform of health care policy, the evolution and influence of managed care, and financial planning and budgeting. Students will be challenged to further develop and apply a reformed Christian world-view to these issues. This course is especially recommended for students seeking a professional career in mental health, medicine, nursing, or public policy. Not open to first-year students.

323 **Intermediate Microeconomics** (4). *F. An intermediate-level study of the microeconomic theory of a market economy, emphasizing the analysis of the behavior of firms and consumers and an evaluation of the efficiency and equity of the market system of organization of economic activity. Students may not receive credit for both this course and Economics 325. Prerequisites: Economics 221 and Mathematics 132 or 161.

324 **Intermediate Macroeconomics** (4). * S. An intermediate-level study of macroeconomic theory, including the theory of aggregate demand, the level of employment, the general level of prices, and economic growth. The course provides the tools for monitoring and understanding general economic events. Computer simulations are used to demonstrate macroeconomic dynamics. Students may not receive credit for both this course and Economics 326. Prerequisites: Economics 222 and Mathematics 143, 243, or 343.

325 **Managerial Economics** (4). * S. An intermediate-level study of microeconomic theory emphasizing applications to managerial decision-making in such areas as market and risk analysis, demand forecasting, production and cost analysis, product pricing, profit planning, and capital budgeting. Goals of firms and the use of economic theory in achieving them are examined and evaluated. Students may not receive credit for both this course and Economics 323. Prerequisites: Economics 221, Mathematics 143, 243, or 343, Mathematics 132 or 161, and Information Systems 171.

326 **Business Cycles and Forecasting** (4). * F. An intermediate-level study of macroeconomic theory emphasizing analysis of general business activity and the implications of changing business conditions for business and public policy. Basic forecasting techniques are explained and the use of forecast information in firm and individual decision-making are evaluated. Computer lab work is used to demonstrate the application of economic theory to business planning and forecasting. Students may not receive credit for both this course and Economics 324. Prerequisites: Economics 222 and Mathematics 143, 243, or 343.

330 **Urban Regional Economics** (3). F. This course initially introduces students to regional economic and location theory and then explores regional issues of metropolitan development as they relate to national economic growth. Basic concepts of the study that will be examined include location determinants, land use, inter-regional economic flows of people and resources, exports, infrastructure, and transport systems. Tools of national and regional forecasting and the concept of social accounting systems will be taught to help analyze and develop appropriate policy by business firms and governments at different levels. The course will illustrate applications of theory and policy by considering, typically, the West Michigan economy. Questions concerning economic health of downtown districts, transportation problems, urban sprawl, the role of lending agencies and realtors, and local governmental cooperation with business will be considered in the course. Prerequisites: Economics 221, 222, Mathematics 143, or their equivalents.

331 **Money and Banking** (3). * F. A study of the principles of money, banking, and credit with emphasis on monetary theory and policy and their role in domestic and international economics. Prerequisite: Economics 222.

332 **Environmental Economics and Public Policy** (3). * An introduction to the theory and practice of environmental policy. The course provides a survey of the problems considered by environmental economics and an evalua-

tion of the policies that have been developed—problems related to pollution and other forms of environmental deterioration, to the use of energy and other resources, and to related issues. Prerequisite: Economics 221 or permission of the instructor.

334 **Industrial Markets and Public Control** (3). * S. A study and evaluation of business strategies in imperfectly competitive markets, including entry barriers, pricing, product differentiation, vertical integration, and mergers. Examination of relevant public policies, such as antitrust law and utility regulation. Prerequisite: Economics 221.

335 **Labor Economics** (3). * S. A study of labor markets and their relationship to the economy as a whole, including labor-force participation, human-capital formation, wage theory, discrimination, unemployment, income distribution, labor unions, and related public policies. Prerequisite: Economics 221.

337 **World Poverty and Economic Development** (3). * S. A study of the characteristics of poor nations in many regions of the world, and of factors that cause and influence economic development within countries. After examining conditions within poor nations, students analyze theories of economic growth and economic development. Subsequently, the course investigates differences and similarities in human and capital resource endowments, production, and trade relations. Problems, possibilities, and policies are analyzed in each of these topic areas. Prerequisites: Economics 221 and 222.

338 **International Economics** (3). * F. A study of international economic relations, stressing the fundamentals of trade theory, the balance of payments, problems of international disequilibrium, trade barriers, and efforts to promote international economic stability and growth. Prerequisite: Economics 222.

339 **Public Finance** (3). * F. A study of the economic effects of government spending and taxation on resource allocation and on the distribution of income. Students analyze the economic role of government, and current policy issues and the political process regarding taxation and government spending. Prerequisite: Economics 221.

343 **Quantitative Economics and Econometrics** (3). * F. An introduction to econometric methods that are frequently used in applied economic research and business practice. Emphasis on creating, interpreting, and critically evaluating empirical results. Topics include the classical linear regression model, functional form, dummy explanatory variables, binary choice models, heteroskedastic and autocorrelated disturbance terms, and an introduction to simultaneous-equation and time-series models. Students learn to write their own programs in a major statistical programming language. Prerequisites: Mathematics 132 and 143 or their equivalents.

349 **Internship in Economics** (4). F and S. These internships, which will require the student to use the tools of economic analysis, involve ten to fifteen hours of work a week under an employer supervisor, and a series of internship seminars on campus. Each intern keeps an analytical journal, submits a final summary paper, and participates in a biweekly seminar. Prerequisites: Appropriate courses in economics, completion of the mathematics cognate requirements, junior or senior standing, and permission of the internship coordinator.

390 **Independent Study**. * F, I, and S. Prerequisite: Permission of the department chair.

395 **Economics Seminar** (3). * S. This seminar course considers the history of economic thought during the last two millennia. This involves a careful consideration of major historical schools of thought about economic culture, beginning with the classical civilizations and ending with contemporary methodological approaches to economics. Prerequisites: Senior economics major status; Biblical Foundations I or Theological Foundations I, Developing a Christian Mind, and Philosophical Foundations.

Education

Professors S. Hasseler (Associate Dean for Teacher Education), T. Hoeksema, C. Joldersma, R. Keeley (chair), J. Simonson, R. Sjoerdsma,
Associate Professor J. Kuyvenhoven, J. Rooks
Assistant Professors A. Boerema, D. Buursma, K. Dunsmore, D. Isom, R. Koole, P. Stegink, S. Verwys
Adjuncts L. Elliott, B. Hekman, J. Shortt

Undergraduate Teacher Education Program

The undergraduate teacher education program is described in detail in the *Teacher Education Program Guidebook,* which is available at www.calvin.edu/academic/education. In Michigan, teachers are generally certified to teach at the elementary (K-8) or secondary (6-12) level. There are a few specialty areas in which students can be certified to teach in Grades K-12 (e.g. art, foreign languages, music, physical education, and special education). All teacher education students are required to complete the liberal arts core and a series of education courses. In addition, students are required to complete a major and minor or multiple minors in content specialty areas (e.g. history, language arts, early childhood education, etc.). Students who wish to teach at the middle school level are advised to follow the elementary teacher education core requirements and choose two minors that they would like to teach in a middle school setting (e.g., language arts and integrated science).

Since teacher education students have a complex and comprehensive preparation program, they should seek assistance in choosing appropriate courses as early as possible. Students who are interested in teacher education should inform the registrar's office so that they can be assigned to an advisor who is knowledgeable about education program requirements. Since some core courses are designed in particular for education students, programs must be carefully planned. It is especially important for students who are considering endorsements in Special Education, Early Childhood Education, Bilingual Education, or English as a Second Language to work with the advisor in their specialty area early in their programs.

Normally, students apply to be admitted into the teacher education program during their sophomore year. Criteria for admission to the teacher education program are described in the *Teacher Education Program Guidebook*. Students must also fulfill particular criteria for admission to directed teaching (the full-time student teaching semester) and for certification. All of these criteria are described in the *Teacher Education Program Guidebook*.

Specialized core requirements are listed in the *Teacher Education Program Guidebook*. Education course requirements are described in this section of the catalog. Major and minor requirements are described under the appropriate department. The specialty area majors and minors offered are listed below. Note that most group majors and minors are associated with multiple departments. Detailed descriptions of the education program and specialty area requirements can also be found in the *Teacher Education Program Guidebook*.

Practicum experiences for EDUC 303, 330, 344, 345, 346, and 347 occur at a variety of sites in the greater Grand Rapids area. Students are responsible for their own transportation to those settings. Students may be able to arrange a car pool or use the city bus line.

Post Baccalaureate Non-Degree Program Leading to a Michigan Provisional Teacher Certificate

This program is designed for students who have graduated with a bachelor's degree from an accredited institution without having obtained a teaching certificate. To be eligible for this program, students must have a grade point average of 2.5 or above and two letters of recommendation. Students must complete the required courses in the education sequence for elementary or secondary certification including a semester-long directed teaching experience. Certification requirements for specialty area majors and minors (including successful completion of state certification tests) must also be met. Only courses in which a grade of "C–" or higher is earned can be used to meet program requirements. Requests for admission to this program should be addressed to the Education Department.

MAJOR AND MINOR EDUCATION CONCENTRATIONS:

(Some of these majors and minors are available for K-12, secondary, or elementary only. See the department's section of the catalog to determine the certification levels available and to obtain a list of required courses for these majors and minors.)

Art
Bilingual Spanish
Biology
Chemistry
Communication Arts and Sciences
Computer Science
Early Childhood Education (see Education)
Earth/Space Science (see Geology)
Economics
English
English as a Second Language
Fine Arts Group (see Art, Music or Communication Arts and Sciences)
French
Geography
German
Health Education (see HPERDS)
History
Integrated Science (see Science Education Studies)
Language Arts Group (see English or Communications Arts and Sciences)
Latin (see Classical Languages)
Mathematics
Music
Physical Education
Physics
Political Science
Psychology
Religion
Social Studies Group (see History, Economics, Political Science or Geography)
Sociology
Spanish
Special Education — Cognitive Impairment

A comprehensive list of departmental advisors for each concentration can be found in the *Teacher Education Program Guidebook*.

ELEMENTARY EDUCATION COURSES

Education 102
Education 202
Education 302
Education 303
Education 305
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Advisor:
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UNDERGRADUATE COURSES

102 **Introduction to Education** (1) F and S. This course serves as an introduction to the discipline of education and the teaching profession. As such, it provides the initial framework for subsequent education courses, intro-

ducing students to pedagogy and its empirical basis, to issues of curriculum and standards, and to the organization of schools in the United States and beyond. The course affords students the opportunity to relate theory to practice as a companion field experience is a required component of the course. This course must be satisfactorily completed as a condition of program admission. Prerequisite: Completion of one semester of college study.

202 **The Learner in the Educational Context: Development and Diversity** (3) F and S. This course will help students develop insight into the development of the mind, identity, and perspective of all learners, including multiple domains of diversity and many alternate ways of being, doing, and seeing, including what is typically labeled as "exceptionality." Students will explore and analyze psychological, physical, social, culture and moral/spiritual facets of development as well as their interplay with the social environment of the learner and their impacts in the classroom. Through lectures, readings, class assignments, a service-learning experience, and a case study, the class will examine psychological, educational, biological, and socio-cultural theory through the lens of a reformed Christian perspective. There is a fifteen hour outside of class field placement required as part of this course. This course must be satisfactorily completed as a condition of program admission. Prerequisite: Completion of Education 102.

236 **The Young Child in an Educational Setting** (3). F. A review and critique of the basic theories of child development. Observation and intensive analysis of the development of a particular child in a preschool setting as related to the major theories and to the appropriate facilitation of development.

302 **Curriculum and Instruction for Diverse Learners** (4) *F and S. This course will help students develop an increased understanding of the complex issues surrounding learning theory and its impact on instruction in diverse educational contexts. Students will explore how an understanding of the learner, the curriculum, and the context shape instructional practice. They will learn how to engage in a pedagogical cycle that includes planning, implementation, evaluation, and reflection with a focus on meeting the needs of all learners. Students will also explore ways in which new teachers can develop and maintain a transformative vision. All of these areas will be examined through the lens of a reformed Christian perspective. An extensive practicum will assist students in linking theory and practice in a classroom setting. Prerequisites: Education 102, Education 202, Admission to the Teacher Education Program. (See the Teacher Education Guidebook for admission requirements.) Must be taken concurrently with Education 303.

*Students seeking certification must be admitted to the teacher education program and be in good academic standing before beginning any 300-level course in the department.

303 **Curriculum and Instruction: Practicum** (3) F and S. Must be taken concurrently with Education 302. See description above.

305 **Teaching Social Studies in the Elementary and Middle School** (2). F and S. A study of perspectives, content, methods, and materials in teaching the social studies in the elementary school. Students will analyze perspectives and determine major goals and themes for teaching the social studies. They will study and analyze the contributions of the various disciplines to the social studies curriculum. Students will examine materials and learn and practice methods for teaching the social studies. Biblical principles, which offer direction for human interactions in society, will be considered. Prerequisites: Education 302/303 or permission of the instructor.

306 **Introduction to Cognitive Impairment** (3). * F. A comprehensive study of the characteristics of persons who have an intellectual disability. Historical and contemporary perspectives on mental retardation will be explored, as will common causes, definitional issues, and interventions. While special attention is given to the needs of persons with retardation as learners, the course examines the entire lifespan and functioning in a variety of settings besides the school, such as the church, workplace, and neighborhood. A Christian view of persons, community, and discipleship, along with the concept of normalization/social role valorization, are integrating elements in the course. Prerequisite: Education 202 or permission of the instructor.

307 **Reading/Literacy in the Content Area** (3). F and S. This course examines the nature and function of literacy in the secondary curriculum. Specifically we will examine the reading and writing practices that support the ways of knowing and doing characteristic of secondary school subject areas. The course will include: analysis of the factors which affect comprehension and composition of content area materials; examining pedagogical strategies that support diagnosis as well as instruction in the literacy skills common to all content areas; strategies for supporting full participation and inclusion of students who display the wide range of ability found in the average secondary classroom; exploring the relationship between discipline based inquiry, literacy development, and educational goals and practices. There is a field placement component as part of this class. Prerequisites: Education 302/303 or permission of the instructor.

309 **Teaching Religion Studies in the Elementary School** (2). *F and S. A study of perspectives, content, methods, and materials in teaching religion studies in the elementary school. This includes pedagogy appropriate for public and non-public schools and evaluation of methods and materials. Prerequisites: Education 302/303 or permission of the instructor.

310 **Assessment In Cognitive Impairment** (3). * S. A study of the foundational concepts and basic terminology needed to assess students with intellectual disability. Skill will be developed in selecting, administering, and interpreting both formal and in-formal, norm-referenced as well as criterion referenced and curriculum-based assessment instruments, for the purpose of developing individualized educational plans. Prerequisite: Concurrent enrollment in Education 347.

311 **Child Language Development** (3). S. See CAS 311.

322 **Introduction to Methods of Teaching Reading: Elementary** (3). *F and S. A study of the nature of the reading process; an introduction to the various process; an introduction to the various approaches to the teaching of reading with an emphasis on the basal approach; a presentation of instructional strategies appropriate to a developmental reading program; and an analysis of the organization and management of a classroom reading program. Prerequisites: Education 302/303 or permission of the instructor.

326 **Reading/Language Arts in the Elementary School** (3). * F and S. This course will present reading as a language art and demonstrate the relationship of language arts to the various subjects in the elementary school. Students will learn strategies and techniques for assessing and differentiating instruction to meet the wide range of reading and writing levels found in elementary classrooms. Prerequisite: Education 322 or permission of the instructor.

330 **Curriculum and Instruction: Cognitive Impairment** (3). * F. A study of the various curricula, instructional materials, and teaching methods appropriate for learners who have mental impairments. Research-based general principles of instruction are reviewed as well as specific methods for teaching domestic, vocational, community living, recreation/leisure, and functional academic skills. Strategies are learned for generating curriculum, evaluating published curricula, and for developing individualized education programs. Includes a practicum of two half-days per week in local school programs serving students with cognitive impairment. Prerequisites: Education 202, 302/303, and 306 or permission of the instructor.

337 **Curriculum Theory and Development: Early Childhood Education** (3). * S. An evaluation of the major approaches to development of a curriculum for early childhood education (up to age eight), the underlying assumptions of each approach, and the appropriateness of each approach for children. Included is a model for curriculum development and opportunity to implement the model for early education. Prerequisite: Education 302/303.

339 **Current Issues in Early Childhood Education** (3). * S. An examination of support systems for the young child, including developing relationships; issues and trends in child advocacy public law and policy; administration and organization of early childhood programs; and assessment issues.

343 Early Childhood Education: Field Experience Preschool (12). *A field experience in a preschool setting that meets state requirements for the endorsement. Provides for

analysis of teaching methods, materials, and classroom organization as they relate to the early childhood setting. Prerequisites: Education 236, 337, 339, and Sociology 304.

344 **Early Childhood Education: Field Experience Kindergarten** (12). *A field experience in a kindergarten setting that meets state requirements for the endorsement. Provides for analysis of teaching methods, materials, and classroom organization as they relate to the early childhood setting. Prerequisites: Education 236, 337, 339, and Sociology 304.

345 **Directed Teaching: Elementary** (12). F and S. Students participate in a full-time supervised student teaching experience. Prerequisites: GPA of 2.5, passing scores on the Michigan Test for Teacher Certification—Basic Skills, completion of education courses, and appropriate recommendations from the education and major/minor departments. See the *Teacher Education Program Guidebook* for additional requirements. Includes a weekly seminar.

346 **Directed Teaching: Secondary** (12). F and S. Students participate in a full-time supervised student teaching experience in their major. Secondary mathematics students student teach during the fall semester. Secondary history and physical education students student teach during the fall or spring semester. All other secondary students student teach during the spring semester. Prerequisites: GPA of 2.5, passing scores on the Michigan Test for Teacher Certification-Basic Skills, completion of education courses, appropriate recommendations from the education and major/minor departments, and concurrent enrollment in a Departmental 359 Seminar. See the *Teacher Education Program Guidebook* for additional requirements.

347 **Directed Teaching: Cognitive Impairment** (12). * S. Full-time, supervised student teaching in a school program serving students with mild or moderate levels of cognitive impairment. A minimum of ten weeks, including at least 360 clock hours of observation and participation, is required. Includes a biweekly seminar, which engages students in critical reflection on their experience in applying theory to practice in the student teaching context. Prerequisites: Good standing in the teacher education program, passing scores on the Michigan Test for Teacher Certification-Basic Skills, completion of all required education courses, and appropriate recommendations. See the *Teacher Education Program Guidebook* for additional requirements.

348 **Directed Teaching: Elementary - English as a Second Language** . *See ESL advisor for more information.

349 **Directed Teaching: Secondary - English as a Second Language** . *See ESL advisor for more information.

398 **Integrative Seminar: Intellectual Foundations of Education** (3). In this course students examine education in its context as a life practice. It involves inquiry into and critique of the philosophical assumptions, historical developments, and social settings that shape the beliefs and practices informing schools as social institutions and education as cultural practice. Throughout the course, students are completing their own faith-based philosophy of education. Prerequisites: Junior or senior standing; Education 302/303; Biblical Foundations I or Theological Foundations I, Developing a Christian Mind, and Philosophical Foundations.

IDIS 205 **Societal Structures and Education** (3). F and S. An examination of the interaction between education and the other systems and institutions (e.g., political, economic, and cultural) that shape society. This course will examine how education is shaped by and is reshaping these systems and institutions. Particular attention will be given to the impact of race, class, and gender on schooling and society. Community-based research projects will challenge students to examine these issues in real-life contexts as well as introducing them to social science research methodology. Christian norms, such as social justice, will shape this critical analysis of the interaction between education and society. This class is appropriate for all students who are interested in education and society and meets a core requirement in the Societal Structures category.

Graduate Teacher Education Program

Calvin College offers Master of Education (M.Ed.) programs in Curriculum and Instruction, Educational Leadership, Literacy and Learning Disabilities. In addition, post-

baccalaureate, non-degree programs are available for obtaining the Michigan Professional Teaching Certificate (18 hours of coursework beyond initial certification) and state endorsements for specialized areas of education.

Master of Education Degree

The Master of Education (M.Ed.) programs serve elementary and secondary teachers and administrators who want advanced professional training and who need to satisfy the requirements for continuing certification or additional endorsements.

Calvin's M.Ed. is designed especially for teachers who are already provisionally certified and experienced in classroom teaching or administration and who wish to attend a Christian college where academic excellence is pursued in the light of Christian commitment. The M.Ed. provides college graduates with an opportunity to integrate an authentic Christian perspective with a broader or deeper range of knowledge and insight into the professional role of the teacher or administrator.

Requirements for admission to the program, transfer of credit, and degree requirements are described in detail in the *Graduate Program Bulletin*, which can be obtained from the education department office. Students who wish to learn more about the Curriculum and InstructionProgram should meet with J. Gormas, Curriculum and Instruction Program Advisor; with A. Boerema, Educational Leadership Program Advisor; with K. Dunsmore or J. Rooks, Literacy Program Advisors; and D. Buursma, Learning Disabilities Program Advisor.

Endorsement Program

The Endorsement Program at Calvin allows certified teachers to fulfill the requirements of the Michigan Professional Teaching Certificate, gain highly qualified status, or obtain additional expertise in a specialty area. The State of Michigan requires a minimum of 18 semester hours of coursework beyond initial certification and 3 years of successful teaching experience before a teacher can be recommended for a Professional Teaching Certificate. The state regulations for highly qualified status are available in the education department. The Endorsement Program allows the participants to add a level of teaching certification to their certificate (e.g. elementary to a secondary certificate) or to add a subject endorsement to their certificate. Calvin offers endorsements in Early Childhood, English as a Second Language, Learning Disabilities, Cognitive Impairment, and Bilingual Education, as well as every major and minor offered at the undergraduate level. Courses taken in this program may be transferable to a master's degree at a later time if they are applicable to a particular concentration.

Courses in the Endorsement Program must be chosen in consultation with an appropriate departmental advisor at the time the program is initiated. Students who graduated from and were recommended for the provisional certificate by Calvin College must take at least 6 semester hours of the program at Calvin. All others must take at least 9 semester hours at Calvin. Previous course work, as well as planned selections, must be evaluated by this advisor. Only courses with a grade of "C+" (2.3) or higher will be applied to program requirements. Please note that some endorsements may require more than 18 semester hours. Also, students adding subject endorsements or elementary certification must pass the Michigan Test for Teacher Certification for those areas.

MASTER'S DEGREE PROGRAMS

CURRICULUM AND INSTRUCTION

Advisor: J. Gormas
Education 501
Education 510
Education 512
Education 580
Education 594
Education 597
Concentration of at least 14 semester hours: Concentrations in subjects acceptable for teacher certification can be taken and self-designed concentrations can be arranged in consultation with the Curriculum and Instruction advisor.

LEADERSHIP CONCENTRATION

Advisor: A. Boerema
Education 501
Education 510

Education 512
Education 534
Education 538
Education 562
Education 563
Education 569
Education 580
Education 594
Education 597

LITERACY CONCENTRATION

Advisor: K. Dunsmore and J. Rooks
Education 501
Education 510
Education 512
Education 513
Education 540
Education 542
Education 543
Education 580
Education 594
Education 597
Electives

LEARNING DISABILITIES

Requirements for the degree with endorsement. (Requirements for the endorsement only program or degree without endorsement can be found in the *Graduate Program Bulletin*) Advisor: D. Buursma
Education 501
Education 510
Education 511
Education 548
Education 550
Education 551
Education 582
Education 594
Education 598
Electives

GRADUATE COURSES

501 **Advanced Educational Psychology** (3). F, S (on-line). An examination of psychoeducational theories of development from the perspective of selected theorists. Consideration is given to the application of these theories to the educational environment and the implications of these theories with regard to intellectual development. Aspects of faith and moral development are considered.

510 **Advanced Foundations in Education** (3). S and SS. This course will investigate various aspects of schooling taking into consideration the following: Historical, political, philosophical, social, cultural, religious, and economic contexts. Students will investigate the purposes of school, noticing trends as well as articulating future visions for schooling based on a Christian perspective. Within these contexts, the course will identify and examine school reform issues as they relate to a complex and rapidly changing local, national, and global society.

511 **Consultation and Collaboration: Professional Roles in Education** (3). SS. The course offers an advanced study of professional responsibilities necessary in advocating and planning instruction for learners identified with disabilities or diverse learning needs and gifts. Students will explore, practice, and critique models and methods of collaboration and consultation that involve teachers, learners, specialists, parents, paraprofessionals, and community agencies in interdependent relationships.

512 **Theories of Instruction** (3). S, on-line, and SS. This course examines the theoretical foundations of instruction as described by selected researchers. It focuses on the underlying assumptions of various theories and interpretation of these theories from a Reformed perspective. Relationships between development and instruction are considered. The implications of diversity in the classroom, the use of technology in contemporary education, and issues of reform in education are discussed.

513 **Cognition, Learning, and Literacy Development** (3). F and SS. This course examines underlying concepts associated with the acquisition of reading and writing. Social and cultural factors contributing to literacy development are considered from the perspectives of educational psychology, cognitive psychology, and language development. Current issues related to classroom instruction are addressed in lectures, discussions, and classroom applications.

534 **Introduction to School Leadership** (3). SS (odd years). A study of leadership theory and practice relating to building school communities that promote learning for all students. This introductory course in school leadership will focus on organizational and

leadership theory; establishing a school mission; collaborative problem-solving and community building; decision-making skills and procedures; and personal leadership qualities. Special emphasis will be given to exploring Biblical principles which guide Christian leaders in school settings. A field experience involving observation of current school leaders is included as part of the course requirements.

538 **Professional Development and Supervision** (3). SS (even years). A study of the theory and practice related to the professional development of teachers and administrators at both the elementary and secondary levels. This course focuses on ways in which school leaders can structure professional development opportunities that promote student learning and school improvement. The course includes a study of adult learning theory, collaborative learning models, action research, mentoring and coaching, formal and informal teacher assessment, and recruitment, induction, and retention of new teachers. Special emphasis will be given to Biblical principles which help shape professional communities in schools.

540 **Trends and Issues in Reading and Literacy Instruction** (3). SS (even years). This course is designed to acquaint students with the major theoretical orientations to reading and literacy development from emergent and early reading and writing through conventional, accomplished reading and writing. Students will study the interrelated nature of reading and writing processes and the development of optimal conditions for reading and literacy instruction. Students will develop procedures for evaluating existing reading programs and materials. Classroom case studies will be used to provide experienced teachers with the basis for informed decision-making techniques in order that they will be able to help other classroom teachers become effective practitioners. Prerequisite: Education 307 or 322 or the permission of the instructor.

542 **Diagnosis and Remediation of Reading Disabilities** (3). SS (odd years). An advanced course for the training of reading personnel or classroom teachers. A cognitive framework for diagnosing and planning instruction for a severely disabled reader is presented. After a review of reading theory, current approaches to teaching reading, and their relationship to reading disability, formal and informal assessment measures will be examined. Following extensive work with a disabled reader, an assessment portfolio, and a case report on the disabled reader will be developed.

543 **Teaching Literacy Through Literature** (3). SS (even years). This course investigates literature-based reading as it is used in a variety of ways. It seeks to familiarize teachers, future teachers, administrators, specialized reading personnel, and other interested persons in children's literature and its use in teaching reading. The course examines the relationship between literature-based reading and a language approach to teaching the language arts. Further topics include emergent literacy, word identification, vocabulary, and reading, and comprehension of narrative and expository text as they relate to literature-based reading. The course includes an emphasis on multicultural literature and its use in developing multicultural sensitivity and appreciation. Special needs students, portfolio assessment, and the parent-student-teacher partnerships conclude the course.

548 **Practicum: Learning Disabilities** (5). S. Students complete a practicum experience at the elementary or secondary level. Knowledge of instructional approached in grades K-12 must be demonstrated by all students. Students who have not had prior, supervised teaching experience in special education are required to complete a ten-week, full-time supervised teaching experience. Students who are seeking a second endorsement in special education must complete a practicum, with a minimum of 180 hours, in an appropriate setting. A seminar integrating theory and practice is included in this course. Prerequisite: All other courses in the LD. endorsement program.

550 **Theories of Learning Disabilities** (3). F and SS (even years). This course is designed to acquaint students with major theoretical models of learning disabilities through a series of lecture discussions. Research related to general characteristics, language acquisition, academic, social development, and problem solving performance of the learning disabled is examined. Approaches to the education of the students with learning disabilities based on the theoretical models are also studied. Current issues in

the field are discussed. Federal and State special education legislation is examined. Prerequisite: Education 202.

551 **Assessment and Diagnosis: Learning Disabilities** (4). S and SS. The course is designed to teach the skills necessary to perform comprehensive educational evaluations of the atypical learner and to utilize the diagnostic data to construct appropriate instructional recommendations for students with learning disabilities. Supervised clinical experiences are required to demonstrate application of theoretical knowledge. Prerequisites: Education 550 and 582 or permission of the instructor.

562 **School Business Management** (3). F (on-line). In this course students will study principles and methods of planning and fiscal management that are based on a biblical model of stewardship. Topics include the process, funding (including fund raising, tuition and fees), budget (including risk management), and organization. Prerequisites: 534 Introduction to Educational Leadership or permission of instructor.

563 **School Law, Ethics and Policy** (3). S (on-line). An examination of the legal and ethical frameworks of schooling through a biblical lens. Students will learn the basics of their national and local school policies and laws as they have been developed, as well as surveying the major legal decisions affecting schools. Prerequisite: 534 or permission of the instructor.

569 **Educational Leadership Internship** (2). F and S. This internship allows prospective school leaders to work closely with a mentor in a school setting for 80 hours over a period of 10 weeks during the school year. Participants will examine nine critical skills of leadership and undertake activities in fourteen investigative areas in two school settings. Prerequisites: Education 534, 538, 562, 563, and permission of the Educational Leadership advisor.

580 **Curriculum Theory and Development** (3). F (on-line). A study of curriculum development theories and models for pre-school through grade 12. This course includes a study of issues relating to organizing curriculum, selecting effective learning resources, implementing curricular change in a school setting, analyzing curriculum, and materials for scope and sequence, gender issues, multicultural considerations, and integrating faith and learning. Prerequisite: Teaching experience.

582 **Curriculum and Instruction: Learning Disabilities** (3). F and SS. This course will acquaint students with remedial methods appropriate for students in grades K-12 with learning disabilities. Attention is given to the role of the teacher/clinician, adapting the learning environment, and selecting appropriate instructional methods for students with learning disabilities. Students examine curriculum and instructional methods related to oral language, reading, writing, mathematics, problem solving, and uses of computer technology. Meeting IEPC goals in classroom instruction is considered. Emphasis is placed on the interpersonal skills required in co-teaching structures and in working with professionals in other disciplines, agencies, colleagues, and parents in the school and community. Prerequisite: Education 550 or permission of the instructor.

590 **Independent Study** (1-6). F, I, S, and SS. *Staff.*

594 **Educational Research and the Classroom** (3). F and SS. The purposes of this course are (1) to explore a variety of types and methods of educational research and inquiry from a Christian perspective and (2) to design a master's degree project or action research. Emphasis is placed on identifying and designing research that is practically feasible and provides useful information for the classroom teacher. Students engage in educational inquiry and design educational research in an area appropriate to their subject matter area or grade level interest. Prerequisite: At least two graduate-level courses.

597 **Graduate Seminar: Curriculum and Instruction or Educational Leadership** (3). S. This seminar is designed to integrate components in the M.Ed. programs in Curriculum and Instruction or Educational Leadership. Developments in the theory and practices in these areas as related to the context of education, curriculum theory, instructional theory, and disciplinary concentration are reviewed. By means of broad unifying themes, students will be expected to integrate into a coherent

unity what they have learned in the program. The broad range of knowledge in these fields will be integrated with an authentic Christian perspective. In the process, students will reflect on how their education and professional experiences can be used for personal growth and to influence society. The seminar will include a final research project. Prerequisites: All other courses in the M.Ed. Program.

598 **Graduate Seminar: Learning Disabilities and Literacy** (3). S. This seminar is designed to integrate components in the M.Ed. programs in Learning Disabilities or Literacy. Developments in theory, research, and practice in learning disabilities or literacy as related to psychology, education, language, and social practice are reviewed. Students submit integrative papers to demonstrate an understanding of principles and current issues. Emphasis is placed on developing leadership roles in the field of learning disabilities. Guided supervision of individual assessment and educational programming is required. The seminar will include a final research project. Prerequisites: All other courses in the M.Ed. Program.

6XX **Workshop in Education**

Engineering

Professors R. Brouwer, R. DeJong, L. De Rooy, R. Hoeksema, E. Nielsen, †P. Ribeiro, A. Sykes, S. VanderLeest (chair), W. Wentzheimer
Associate Professors G. Ermer, K. Hekman, M. Heun, J. Jewett Van Antwerp, J. Van Antwerp
Assistant Professors A. Si, D. Wunder

Calvin College offers a Bachelor of Science in Engineering degree (B.S.E.) with concentrations in Chemical, Civil and Environmental, Electrical and Computer, and Mechanical Engineering. The Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (A.B.E.T.) accredits the B.S.E. program. The recommended first semester curriculum is Chemistry 103, Mathematics 161, Engineering 101, Engineering 181 and English 101.

Engineering (B.S.E.)

Engineering is a design-oriented profession applying the principles of mathematics, science, economics, ethics, social sciences, and humanities with judgment to the utilization of energy and materials for the benefit of humanity.

Students at Calvin College prepare to be engineers by following a program leading to a Bachelor of Science in Engineering (B.S.E.) degree. This degree is attained by completing courses in one of four concentrations—chemical engineering, civil and environmental engineering, electrical and computer engineering, or mechanical engineering. The Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (A.B.E.T.) accredits this curriculum. Students interested in engineering should consult with the department chair, S. VanderLeest.

MISSION OF THE CALVIN COLLEGE ENGINEERING DEPARTMENT

Within the mission of Calvin College, we respond to our Creator's call to be agents of renewal by learning to design responsible technologies that serve the needs of the world. Our mission covers the faculty, staff, and students who together seek to build God's kingdom in the areas of engineering and technology.

Teaching

Our primary mission is for students and faculty to explore not only the fundamental technical concepts of engineering (such as design principles and problem-solving), but also to place that learning in a broader interdisciplinary and liberal arts context. Our teaching is marked by a strong emphasis on responsible design that builds upon a foundation of faith in Jesus Christ. Students graduating with a BSE degree from Calvin College will be…

…kingdom servants whose Christian faith leads them to engineering careers of action and involvement, to personal piety, integrity, and social responsibility, and to leadership with a prophetic voice advocating appropriate technologies;

…firmly grounded in the basic principles and skills of engineering, mathematics, science, and the humanities, for correct, perceptive, and sensitive problem assessment at a level appropriate for entry level professional work and graduate studies;

…equipped to creatively move a project from problem statement to final design utilizing the interdisciplinary and interdependent character of the engineering profession.

Research & Scholarship

We serve God by engaging both the profession and the general public through research and consulting that enhances our primary mission of teaching. Our scholarship includes research in the engineering sciences; the design process; project management; engineering education; engineering ethics; and the relationships among engineering, technology, and the broader society.

Community Service

We use our technological gifts and skills to care for and serve our neighbors locally and globally. Community service enhances our primary mission of teaching and includes service-learning, involvement in mission projects, and consultation with groups needing engineering expertise.

The engineering program has a strong emphasis on design. Here the student meets the challenging value and technical issues that arise when societal problems are dealt with through technology. The design experience starts with several projects in the first two years, which focus on societal problems and issues, and which emphasize conceptual design, creativity, and teamwork. Design experiences are then integrated into each concentration by way of specific courses or projects. Finally, the design experience is completed by means of a capstone design project course sequence during the senior year. Within this design perspective, students are aided in the development of a thorough Christian understanding of technology and its applications.

Each of the four concentrations in the engineering program has two or three major themes or emphases. The Chemical Engineering concentration has emphases of chemistry and chemical processing. The Civil and Environmental Engineering concentration has emphases of hydraulics, structures, and environmental. The Electrical and Computer Engineering concentration has emphases of digital systems and analog circuits. Finally, the Mechanical Engineering concentration has emphases of thermal systems and machine design.

Admission. Students follow a common program for the first two years, at the end of which they apply for admission to a concentration in the engineering program. The minimum requirements for admission to the program are:

- Completion of Chemistry 103, Computer Science 104, Mathematics 161, 162, 231, 232, Physics 133 and 235 with a minimum grade of "C–";
- Completion of Engineering 101, 106, 181, 202, 204, and 209 with a minimum grade of "C–";
- Completion of 16 hours of the required humanities courses
- Submission of résumé with application for admission to concentration
- Attendance at an Engineering Internship Workshop
- Have a minimum cumulative grade point average of 2.30

Students must apply for admission to a concentration in the engineering program during the semester in which they are completing the required courses listed above. Admission to a B.S.E. concentration allows the student entry into 300-level engineering courses.

Conditional Admission. Conditional admission is available to assist certain students. Students who wish to take 300-level courses, but who have not completed the required courses with the stipulated minimum grade and/or who have not achieved the minimum required cumulative grade point average may be given conditional admission to the program. Conditional admission is granted at the discretion of the department chair. Conditional admission is normally granted as long as students do not have more than 8 semester hours of course deficiencies and only if their cumulative grade point average is no less than 2.20. Furthermore, the student's GPA must be raised to no less than 2.30 and all course deficiencies must be removed within the period of time designated by the chair (normally not exceeding one year). Students who receive conditional admission and then fail to meet these conditions within the designated time period are not eligible to reapply for admission to the program at a later date. As an alternative to conditional admission, students may delay taking 300-level courses until they have met all requirements for regular admission to the program.

Graduating with Honors. Those wishing to graduate with honors in Engineering must meet the following requirements:

1. have a minimum cumulative GPA of 3.5 and a total of six honors courses (18 hours minimum) overall, including at least two honors courses outside the major; at least two honors courses in Engineering (except Engineering 101, 181, 185, 285, 294, 337, 339, 340, 382, 385, 387 and 394) with a minimum grade of A– (at least one of the Engineering courses must be a 300-level course), and
2. receive credit for Engineering 385, Engineering Internship, or Engineering 387, International Engineering Internship; and
3. receive credit for either Engineering 294 or 394, Engineering Seminar

Since the Engineering Department does not regularly offer honors sections, the honors courses in engineering are taken by special arrangement with the course instructor.

International Concentration Designation. Students may receive an international designation to their concentration (e.g., "BSE International Mechanical Concentration") by completing two of the following three items:

1. Complete an international engineering interim course.
2. Receive credit for an international internship and demonstrate some ability to speak the language of their internship country.
3. Receive credit for an international engineering summer or semester program.

Other procedures and activities may qualify for the international designation. For additional details, please contact the department chair or the department internship coordinator.

Transfer Student Admission. Students wishing to transfer from another school should apply to the Office of Admissions. In general, transfer students must meet the same course requirements as students who begin their programs at Calvin. No course completed with a grade below "C" (2.0) will receive transfer credit.

Transfer students must arrange for an analysis of transcripts by the department chair well in advance of course advising. In addition, those who wish to take 300-level courses in their first semester at Calvin must:

1. Have a 2.5 grade point average at their previous school;
2. If requested, provide a letter from that school indicating that the student was in good academic and personal standing; and
3. Receive either conditional admission or regular admission or possibly special permission from the chair.

Calvin's engineering program emphasizes the integration of Christian faith and a professional engineering education. This integration takes place in many ways. For this reason a student seeking a B.S.E. degree from Calvin should be part of the program for the equivalent of no less than four semesters as a full-time student at Calvin. It is also stipulated that at least one non-technical course be taken for each semester at Calvin.

Notes Regarding Admission and Graduation. All students must display a high degree of personal integrity to be recommended for admission. This is demanded by the nature of Engineering as a profession. After admission to the Engineering program the student must continue to make adequate progress toward fulfilling graduation requirements. A grade below C- in a 300-level course is an example of inadequate progress, and will require repeating the course. Courses may be repeated only once. A student's admission to the program will be revoked if the student fails to show adequate progress. In addition to an overall, college-wide grade point average of 2.0, the student must obtain a grade point average of 2.0 in all engineering courses completed at Calvin to be eligible to graduate.

Advisory Council and Professional Societies. The Engineering Department is served by an advisory council consisting of engineers from local industries, which meet semi-annually to review the program and give advice from an industrial perspective. Calvin Engineering Faculty are members of a wide range of professional societies. Calvin College has student chapters of ASCE, ASME, and IEEE.

BACHELOR OF SCIENCE IN ENGINEERING

Common engineering courses (26 hours)
Engineering 101 - core
Engineering 106
Engineering 181
Engineering 202
Engineering 204
Engineering 209
Engineering 339 - core
Engineering 340 - core

Technical Cognates (32 hours)
Business 357
Chemistry 103
Computer Science 104
Mathematics 161 - core
Mathematics 162
Mathematics 231
Mathematics 232
Physics 133 - core
Physics 235 - core

Humanities Courses (31 hours)
Interdisciplinary 149 Prelude - core
Interdisciplinary W50 DCM - core
English 101 - core
Health and Fitness - core
History 151 or 152 - core
Philosophy 153 - core
Religion 121 or 131 - core
Economics 151 - core
Literature - core
The Arts - core
IDIS 102 or CAS 101 - core
Cross-Cultural Engagement - core

Students must meet the requirements of at least one of the four concentrations listed below:

Chemical Engineering Concentration-Chemistry and Chemistry Processing Emphasis (44 hours)
Engineering 303
Engineering 312
Engineering 330
Engineering 331
Engineering 335
Engineering 337
Engineering Senior Special Topics Interim
Engineering 342
Chemistry 261
Chemistry 262
Chemistry 317
Chemistry elective

Civil and Environmental Engineering Concentration-Hydraulics, Structures and Environmental Emphasis (42 hours)
Engineering 305
Engineering 306
Engineering 319
Engineering 320
Engineering 326
Engineering Senior Special Topics Interim
Engineering Elective
At least two of the following: Engineering 308, 321 or 327

Advanced Mathematics/Basic Science Elective
Advanced Mathematics/Basic Science/Engineering Elective

Electrical and Computer Engineering Concentration-Digital Systems and Analog Circuits Emphasis (42 hours)
Engineering 302
Engineering 304
Engineering 307
Engineering 311
Engineering 325
Engineering 332
Engineering Senior Special Topics Interim
Engineering Elective
Advanced Mathematics/Basic Science Elective
Advanced Mathematics/Basic Science/Engineering Elective
Computer Science 112

Mechanical Engineering-Thermal Systems and Machine Design Emphasis (42 hours)
Engineering 305
Engineering 319
Engineering 322
Engineering 324
Engineering 328
Engineering 333
Engineering 334
Engineering 382
Engineering Senior Special Topics Interim
Engineering Elective
Advanced Mathematics/Basic Science Elective
Advanced Mathematics/Basic Science/Engineering Elective

Group majors combining Engineering and another discipline (but not accredited by A.B.E.T.) may be appropriate for some students (see the chair for more information).

ENGINEERING MINOR

The Engineering Minor consists of six approved engineering courses, including:
Engineering 106 (unless students have credit for Chemistry 104)
At least two of the following: Engineering 202, 204 or 209
At least two 300-level courses including one of the following design courses:
Chemical: Engineering 331 (Reactors) or Engineering 335 (Separations)
Civil & Environmental: Engineering 308 (Environmental), Engineering 321 (Hydraulics) or Engineering 327 (Structures)
Electrical & Computer: Engineering 325 (Digital) or Engineering 332 (Analog)
Mechanical: Engineering 333 (Thermal/Fluids) or Engineering 322 (Machines)

COURSES

101 **Introduction to Engineering Design** (2). F. An introduction to the engineering design process and resource design tools by means of projects, lectures, and homework. Team projects, including service learning, require application of creativity, engineering analysis, and computational tools. Readings, lectures, and discussions also examine the areas of technology in society, engineering ethics, and library research methods. The computer and various software tools are Introduced and used. This course fulfills the Foundations of Information Technology core category.

103 **Architectural Communication and Concept Design** (4). F. Graphical techniques for spatial analysis; a study of basic topics in architectural drawing to provide facility in the transmission of ideas through accepted graphical means. Areas covered include orthographic projection, free-hand sketching, pictorial representation (including perspective), sections and conventions, basic dimensioning, shade and shadows, and computer graphics. The student is introduced to the design process by means of lectures and assigned architectural projects. Readings are also assigned in design-related areas of creative thinking, aesthetics, economics, and human satisfaction.

106 **Engineering Chemistry and Materials Science** (4). S. An introductory course in the science of engineering materials. Engineering properties of materials - mechanical, electrical, and chemical - are closely linked to the underlying solid state and molecular structure. Chemistry relating to various aspects of design including phase change, solution theory, acid-base solutions, and chemical equilibrium is presented. This course is

team-taught by chemists and engineers to facilitate the integration of basic chemical principles and engineering design. Issues of stewardship of resources are addressed. Laboratory. Prerequisites: Chemistry 103, Engineering 101, and Mathematics 160 or 161.

181 **Engineering Graphical Communication Lab** (2). F. This laboratory course focuses on techniques and computer software tools used for visualization and engineering communication. The course introduces graphical techniques for spatial analysis, including orthographic projection, free-hand sketching, pictorial representation, descriptive geometry, sections, basic dimensioning, and tolerancing.

202 **Statics and Dynamics** (4). F and S. A study of fundamental principles of mechanics and their application to the problems of engineering. Vector algebra, forces, moments, couples, friction, virtual work, kinematics of a particle, kinematics of a rigid body, dynamics of particles and rigid bodies, impulse, momentum, work, and energy are presented in two and three dimensions. Prerequisites: Physics 133 and concurrent registration in Mathematics 231.

204 **Circuits Analysis and Electronics** (4). S. An introduction to the theory and application of electronic circuits and devices. The following topics are covered: basic linear circuits (including frequency and transient response), semiconductor devices (diodes, op-amps, comparators, etc.), electric power, electric safety, and DC machines. Laboratory exercises are used to illustrate the material covered in the lecture portion of the course. Students will measure voltage, current, resistance, power, transient response, resonant circuits, voltage regulators, operational amplifiers. Students will investigate digital logic circuits. Co-requisite: Mathematics 231 Prerequisite: Physics 235.

209 **Introduction to Conservation Laws and Thermodynamics** (4). F and S. This course introduces several foundational engineering topics. Included are single and multi-component process material and energy balances (conservation laws), the first and second laws of thermodynamics and heat transfer. Study of chemical kinetics and equilibrium demonstrates the link between science and design begun in Engineering 106 and also broadens the student's knowledge of chemistry. Issues of stewardship of materials and resources are addressed. Laboratory. Prerequisites: Engineering 106 and Mathematics 162 or permission of the instructor.

220 **Introduction to Computer Architecture** (4). F. A study of computer organization (including memory hierarchy, I/O, bus-based systems, distributed systems, and parallel systems), and computer architecture (including CPU control, pipelining, and instruction set architecture). Laboratory exercises emphasize principles. Prerequisites: A programming language course, normally Computer Science 104 or 108 or permission of the instructor.

Prerequisite to all courses numbered 300 or higher is formal admission to a B.S.E. concentration.

302 **Engineering Electromagnetics** (4). S. A study of the laws and engineering applications of electric and magnetic fields in various conductive, dialectric, and magnetic materials and under various boundary conditions. Emphasis is on the analysis and design aspects of transmission line circuits. Prerequisites: Mathematics 231, Mathematics 232, and Physics 235.

303 **Chemical Engineering Principles and Thermodynamics** (3). F. This course continues the study of chemical engineering principles begun in Engineering 209. Included are material and energy balances with reaction and introduction to vapor-liquid and liquid-liquid equilibrium including the concepts of dew and bubble points and the flash process. Process simulators (HYSYS) are introduced. Principles are reinforced with an in-depth team design project of a commercial process. Basic concepts of thermodynamics, i.e., equilibrium, reversibility, system are presented. The first and second laws are studied including the Carnot cycle and reversible process equipment as models of best performance. This material provides the foundation for the in-depth study of thermodynamic in Engineering 312. Prerequisites: Engineering 209, Mathematics 231, and concurrent registration in Chemistry 317.

304 **Fundamentals of Digital Systems** (4). S. An introduction to the fundamental prin-

ciples of logic design in digital systems. Topics include: Boolean algebra, analysis and synthesis of combinational and sequential networks, register transfer language, micro-operational description and applications to computer design, computer organization and assembly language programming, and asynchronous logic. The student is introduced to digital logic families and programmable logic devices, digital logic CAD tools, logic synthesis and hardware description languages (VHDL). Laboratory work will include logic design and assembly language programming. Prerequisites: Engineering 204 and a programming language course (normally Computer Science 104).

305 **Mechanics of Materials** (4). F. Application of principles of mechanics to the solution of problems in stress and strain of engineering materials, including resistance to force, bending, torque, shear, eccentric load, deflection of beams, buckling of columns, compounding of simple stresses, introduction to theory of failure, and energy methods. Prerequisites: Engineering 106 and 202.

306 **Principles of Environmental Engineering** (4). F. A study of environmental engineering and science principles relevant to engineered and natural systems. Topics considered in this course include an overview of the domains of environmental engineering; relevant units of measurement; population dynamics; contaminant types, sources and presence; chemical stoichiometry, equilibria, and kinetics; mass and energy balances; mass/particle transport processes; microbial ecosystem structure and function; biogeochemical cycling; and oxygen demand. Prerequisites: Engineering 209, or permission of the instructor.

307 **Electrical Signals and Systems** (4). F. Advanced techniques for the analysis of analog electrical systems. Topics include: frequency domain analysis, Laplace transforms, Fourier series, Fourier transforms, and continuous versus discrete signal analysis. Frequency response is analyzed using transfer functions, Bode plots, and spectral plots. Digital Signal Processing (DSP) is introduced. Prerequisites: Engineering 204, Mathematics 231. Co-requisite: Mathematics 232.

308 **Environmental Engineering Design** (4). S. Application of environmental engineering and science principles to the design of environmental control measures and engineered systems. Problems considered in this course will include design of water supply and treatment processes; wastewater treatment processes; processes for air pollution control, groundwater remediation; and solid and hazardous waste management. Prerequisites: Engineering 306, or permission of the instructor.

311 **Electronic Devices and Circuits** (4). F. A study of the characteristics and qualitative internal action of commonly used microelectronic devices for discrete and integrated circuits, such as diodes, junction field-effect transistors (JFETs), metal-oxide semi-conductors FETs (MOSFETS), and bipolar junction transistors (BJTs). Application of these devices in basic amplifier circuits is explored. Laboratory exercises are used to illustrate concepts. Prerequisite: Engineering 204 and Mathematics 231.

312 **Chemical Engineering Thermodynamics** (4). S. Thermodynamic topics important in Chemical Engineering are addressed. The properties of real fluids and equations of state, properties of mixtures, phase equilibrium, and chemical equilibrium. Prerequisites: Engineering 303, and Chemistry 317.

314 **Vibration Analysis** (4). S. Analysis of mechanical vibration in both transient and steady state regimes, employing analytical and computer techniques for solution. Linear and nonlinear problems are investigated with original inquiry suggested and encouraged. Prerequisites: Engineering 202 and Mathematics 232.

315 **Control Systems** (4). F. An introduction to linear feedback control theory, including transient and frequency response, stability, systems performance, control modes, and compensation methods. Hydraulic, electrical, pneumatic, and inertial components and systems are investigated and employed. Prerequisites: Engineering 204 and Mathematics 232.

318 **Soil Mechanics and Foundation Design** (4). S, alternate years. Soils studied as engineering materials whose behavior is dependent upon soil types, index properties, and soil moisture conditions. The scope of the course includes soil structures, index properties, soil identification, permeability, compressibility and consolidation, soil testing,

static and dynamic pressures, effective pressures, and foundation design. Laboratory experiments are used to emphasize principles. Prerequisite: Engineering 305.

319 **Introduction to the Thermal/Fluid Sciences** (4). F. An introduction to the Engineering thermal and fluid sciences including elements of thermodynamics, fluid mechanics, and heat transfer. Concepts include the properties of fluids, first and second laws of thermodynamics, external and internal viscous and ideal flows, and conduction, convection, and radiation heat transfer. Laboratory exercises are used to illustrate concepts. Prerequisites: Engineering 202 and 209, Mathematics 231.

320 **Hydraulic Engineering** (4). S. Application of the basic principles of fluid mechanics to practical problems in hydraulic and hydrologic analysis. Topics include fluid statics, hydrology, groundwater flow, open channel flow, closed conduit flow, and Centrifugal Pumps. Computer techniques and laboratory exercises are used to emphasize principles. Prerequisite: Engineering 319.

321 **Hydraulic Engineering Design** (4). F. Application of principles of hydraulics and hydrology to the design of hydraulic systems and structures. Problems considered in this course will include design of pipe networks for water distribution, design of sewage collection systems, design of pumping facilities, design of groundwater remediation systems, design of flood control structures, and design of dams and reservoirs. Computer techniques will be frequently employed. Prerequisite: Engineering 320.

322 **Machine Design** (4). S. Application of engineering mechanics, materials, and failure theories to the analysis and design of mechanical elements and systems. Computer techniques are used as aids to analysis and design. Prerequisite: Engineering 305.

324 **Materials and Processes in Manufacturing** (4). S. This course introduces students to the various mechanical and management issues involved in the fabrication of manufactured goods. Scientific and engineering principles are applied to fabricating processes such as casting, forming, and machining so as to determine the relation of process to material properties, economics, dimensional accuracy, and energy requirements. Topics such as computer-aided manufacturing (CAM), numerical control (NC), statistical quality control (SQC), and quality management are also explored. Field trips and laboratories are used to support the lecture material. Prerequisites: Engineering 106 and 305.

325 **Computer Architecture and Digital Systems Design** (4). F. Design of advanced digital systems using programmable logic, Application-Specific Integrated Circuits (ASICs), and microprocessors. Microprocessor architecture including pipelining, memory hierarchy, cache, instruction set architecture, CPU control, bus standards, I/O, superscalar, and Very Long Instructive Word (VLIW) approaches. Interfacing and communication techniques, including data error detection and correction codes. Introduction to parallel processing. Laboratory exercises emphasize the design of microprocessor-based digital systems. Prerequisite: Engineering 304.

326 **Structural Analysis** (4). S. A study of beams, two-dimensional trusses, and rigid frames. Course work includes calculation of shear forces and bending moments due to fixed and moving loads, calculation of deflection, analysis of moving loads using influence lines, and the analysis of statically indeterminate structures. The course also includes an introduction to matrix methods in structural analysis. Prerequisite: Engineering 305.

327 **Structural Design** (4). F. Application of principles of mechanics of solids and structural analysis to the design of structural members made of steel or reinforced concrete. Load and factored resistance design procedures are studied along with the current steel specification for the design, fabrication, and erection of structural steel for buildings and the building code requirements for reinforced concrete. Computer techniques are used as aids to analysis and design. Prerequisite: Engineering 326.

328 **Intermediate Thermal/Fluid Sciences and Design** (4). S. An intermediate treatment of heat transfer and thermodynamics including analysis and design related to steady and unsteady conduction with an emphasis on two and three dimensions, free and forced convection, radiation modes of heat transfer, power and refrigeration cycles, air con-

ditioning processes, chemical equilibrium, and combustion. Laboratory, design, and computer exercises are utilized to emphasize principles. Prerequisite: Engineering 319.

330 **Fluid Flow and Heat Transfer** (4). S. Applications of fluid flow and heat transfer fundamentals to Chemical Engineering problems including heat exchanger design and designs for the transportation and metering of fluids. Unit operations of filtration and evaporation are covered. Prerequisites: Engineering 209 and 303.

331 **Kinetics/Reactor Design** (4). F. An introduction to chemical kinetics and reactor design. Principles of kinetics of homogeneous and heterogeneous reactions with differential and integral analysis of kinetic data are included. Ideal reactor design concepts, nonisothermal reactor design, and design of catalyzed fluid-solid reactors are presented. Mass transfer, as it impacts multiphase reactor design, is introduced. One open-ended team design project and one kinetics lab project will be done to reinforce concepts presented in class. Prerequisites: Engineering 312, 330, and Chemistry 317.

332 **Analog Circuits and Systems Design** (4). S. Feedback principles and electronic circuit theory and device theory applied to multistage transistor amplifiers. Detailed study of operational amplifier specs, nonidealities, and compensation. Introduction to filter theory and practical realizations. Power supply design: Rectifier circuits, linear, and switching regulators. Nonlinear circuits: Comparators, multipliers, Schmitt trigger, S/H circuits, multivibrators, and oscillators. Introduction to noise analysis and low noise design. Emphasis on realization of designs using commercially available IC's. Design experience emphasized in projects and the laboratory. Prerequisites: Engineering 307 and 311.

333 **Thermal Systems Design** (4). F. Advanced heat transfer, thermodynamic, and fluid flow topics important for the design of thermal systems are presented. Availability (exergy) analysis and methods for the optimization of system components are given. Selection and design of fluid flow and heat transfer equipment used in energy conversion systems are emphasized. Economic evaluation is studied. A co-generation system is studied throughout the semester to emphasize basic principles of analysis and design. A project is required. Prerequisite: Engineering 328.

334 **Dynamics of Machinery** (3). S. This course investigates various dynamic aspects of machinery. An in-depth study is made of mechanisms such as the four-bar linkage. Cams and gears are studied in the context of their use in machines. Vibration concerns are addressed including methods of balancing rotating machinery. Kinematics and kinetics are studied in a three-dimensional space with an emphasis on application in the area of robotics. Computer simulation of mechanisms is used to reinforce basic concepts. Prerequisite: Engineering 202.

335 **Mass Transfer and Staging Operations** (4). F. Mass transport fundamentals are applied to Chemical Engineering design problems. Principles of equilibrium mass transport operations are applied to distillation, gas absorption, extraction, and humidification design. Prerequisite: Engineering 312 and 330.

337 **Chemical Engineering Laboratory** (2). S. Principles of fluid flow, heat transfer, mass transfer, stage-operations, and chemical kinetics are studied using small-scale equipment. Evaluation and analysis of experimental observations, project proposals, and report writing is emphasized. Prerequisites: Engineering 331, 335, and Chemistry 317.

338 **Introduction to Traffic Engineering and Highway Design** (4). S, alternate years. Introduction to the basic concepts of traffic engineering and highway design. The traffic-engineering portion introduces basic concepts including how the motorist, vehicle, road, and pedestrian interact, roadway capacity and Level-of-Service, traffic flow and queue theory, and traffic signal timing. Software applications are introduced regarding traffic simulation and capacity analysis. The highway design portion of the course focuses on the basics of horizontal and vertical alignment of roadways, design vehicle, design speed, superelevation, sight distance, and other design considerations. Prerequisite: Admission to engineering program or permission of the instructor.

339 **Senior Design Project** (2). F. This is the first course in the senior design project sequence. Emphasis is placed on design team formation, project identification, and production of a feasibility study. Students focus on the development of task specifications in light of the norms for design and preliminary validation of the design by means of basic analysis and appropriate prototyping. Lectures focus on integration of the design process with a reformed Christian worldview, team building, and state-of-the-art technical aspects of design. Interdisciplinary projects are encouraged. Prerequisites: Concurrent registration in the seventh semester of the model program for a particular concentration or permission of the instructors; Biblical Foundations I or Theological Foundation I, Developing a Christian Mind, and Philosophical Foundations.

340 **Senior Design Project** (4). S. This is the second course in the senior design project sequence. Emphasis is placed on the completion of a major design project initiated in Engineering 339. This project should entail task specifications in light of the norms for design by means of engineering analysis and an appropriate prototype focused on primary functionality. A final presentation is given at the May senior design project banquet. Lectures continue to focus on integration of the design process with a reformed Christian worldview, team activity, and state-of-the-art technical aspects of design. Prerequisites: Engineering 339 (taken the semester immediately prior).

342 **Process Dynamics, Modeling, and Control** (4). S. Introduction to the analysis of process dynamics, and to the design and analysis of process control systems. Covers transient and frequency response, transfer functions, stability, performance, linearization, decoupling, and multivariable control. Prerequisites: Engineering 209 and Mathematics 232.

382 **Engineering Instrumentation Laboratory** (1). S. Laboratory course, which serves as an introduction to the characteristics and uses of transducers to measure displacement, strain, pressure, temperature, velocity, acceleration, and other physical quantities. Emphasis is on the usefulness, accuracy, and reliability of measurement systems in actual applications. Electronic signal conditioning techniques are covered. A design project using LabVIEW software and File Point data acquisition hardware is required. Written reports required. Prerequisites: Engineering 204.

390 **Independent Study**. F, I, and S. Independent readings and research. Prerequisite: Permission of the chair.

Interim Courses (Not Offered Every Year)

W81 Advanced Computer Architecture with VHDL. This course explores advanced computer architecture techniques including superscalar machines, Very Long Instruction Word (VLIW) scheduling, Explicitly Parallel Instruction Computing (EPIC) architectures, predicated execution, interrupts in a pipelined machine, and compiler optimizations for specific hardware platforms. Hardware designs are examined through the use of VHDL (VHSIC Hardware Description Language). The course examines the VHDL design methodology and compares the behavioral, dataflow, and structural architecture description styles. Syntax constructs for describing sequential and concurrent modules are studied in detail. Verification techniques are also covered. Students design a variety of circuits and modules using sophisticated CAD tools, implement microprocessor subsystems and microprocessor interface circuits in the lab, and demonstrate their understanding of VHDL design principles. Prerequisite: Engineering 325 or permission of the instructor.

W82 Finite-Element Analysis. The finite-element method is a design and analysis tool widely used in many areas of engineering. In this course students consider the historical development, the fundamental principles, and the various applications of this method in the areas of structural mechanics and heat transfer. Exercises are assigned to orient the student to available general-purpose software. There is an in-depth focus on several design projects. Prerequisite: Engineering 305 or permission of the instructor.

W83 Water and Wastewater Treatment Design. This course addresses the application and theory of chemical, physical, and biological processes related to potable water treatment and wastewater treatment systems. Problems

considered include unit process design for the following potable water treatment plant components: screening, coagulation, mixing, flocculation, chemical softening, filtration, disinfection, ion exchange, adsorption, membrane filtration, and residuals handling. Additional coverage includes unit process design for wastewater treatment components including: activated sludge, trickling filters, membrane bioreactors, aeration, clarification, and solids handling and stabilization. Prerequisites: Engineering 209 and senior standing or permission of the instructor.

W84 Advanced Topics in Chemical Engineering Design. This course addresses essential advanced topics that build on the foundational concepts from several earlier chemical engineering courses. Design topics covered include: mass transfer and staging operations, radiation heat transfer, nonelementary kinetics, corrosion, and materials of construction. In addition, fundamental concepts of environmental, health, and safety issues for design are presented. Prerequisites: Engineering 330, 331, 335, and senior standing.

W85 Stormwater Management. Civil engineers today are frequently faced with the problem of managing the impact of stormwater within the urban environment. Management involves addressing issues of both stormwater quantity as well as quality. There are three specific goals for this course. The first goal is to introduce the basic principles and computational methods associated with stormwater flows, collection, storage, and treatment. The second goal is to understand basic stormwater management approaches used in practice today. The third goal is to learn how to use numerical modeling software to solve stormwater management design problems. Guest speakers, field trips, and case study reviews are also used to emphasize basic principles and management techniques. Prerequisite: Engineering 320 or permission of instructor.

W86 Introduction to Power Systems. This course is intended to serve as an introduction to electric energy systems and its basic operation principles. Students will be learn about the theory and methods related to AC power system analysis and design. Major components are to develop familiarity with power system engineering components, equipment and analytical tools; to understand and study of the largest machine ever built-the integrated power grid; to understand the use of transmission grids as a means of transport/delivery of energy; to use tools for the analysis of power systems (MATLAB/Simulink, PowerWorld, EasyPower, PSCAD/EMTP); to investigate flow of power on a power grid; to understand voltage regulation, real and reactive power, three phase power, power quality, efficiency, practical stability limits, etc.; and finally to become familiar with management and environmental issues associated with transmission grids / power systems. Prerequisite: ENGR 204 and senior standing or permission of the Instructor.

W87 Designing with an Eye on the Environment. Much environmental effort has been invested in finding solutions to environmental problems that were created by the rise of the industrial age with its intensified use of energy and materials, the surge in world population, the concentration of people in cities, and the incomplete understanding of the integration of the earth's systems. This course first develops a basic understanding of current environmental issues and the underlying science, technology, social, and political knowledge needed to frame these issues for the future. The course then surveys current approaches, first, to coping with the backlog of environmental problems and, next, to achieve a world that is sustainable. The course concludes with the identification of sustainable approaches and how they may develop into the future. Students from various disciplines have an opportunity to focus on deploying these approaches—using the various academic concentrations as a foundation—by developing and presenting a design project at the end of the course that challenges the class to better understand the cost and benefits of environmentally conscious designs. Prerequisite: senior standing or permission of the instructor.

Off Campus Interims

Business and Engineering for the International Market. This course introduces the student to the nuances of business practices and product development in the international market, focusing on business, research, and development in Europe. Students learn how

the languages, history, culture, economics, regulations, and politics of Europe shape the business and design process through tours of businesses, engineering-research facilities (industrial and academic), and manufacturing facilities as well as discussion sessions with leading business executives and research engineers in Europe. Locales include Amsterdam, Rotterdam, Delft, Brugge, Brussels, Paris, Koblenz, Offenbach, Zurich, Munich, Nürnberg, Leipzig, Berlin, Bremen, and Koln. Additional religious and cultural locales include The Begijnhof, The Hague, Louvain, Versailles, Notre Dame Cathedral, Reims, Heidelberg, Dachau, Neuschwanstein, Prague, St. Vitus Cathedral, Wittenberg, Magdeberg, and Koln Cathedral. Students keep a daily journal and complete study assignments that focus attention on key issues related to the day's tour. Prerequisite: Business 160 or Engineering 101 or permission of the instructor. E. Nielsen.

Dutch Landscapes: Society, Technology, and Environment. Few countries exist where human activities have exerted a greater influence in the shaping of the land than the Netherlands. With daily field excursions and detailed topographic maps, students study this country's richly varied and historically layered cultural landscapes. Land reclamation, water management, and environmental preservation technologies used over many centuries are an important part of understanding the complex interrelationships between society, technology, and land. Additionally, students have opportunities for direct engagement with people from this country. Briefings, interpretation en route, topographic maps, and study-sheet assignments guide each field trip. Students spend one Sunday with a Dutch family. Open days are integrated to provide opportunities for personal travel. R. Hoeksema. Not offered Interim 2008.

The South African Miracle: Challenges and Accomplishments in Politics and Industry. This course introduces students to a country with a tragic past but also a promising future. The primary academic objective is to gain firsthand knowledge and understanding of how racial injustice has been encountered in political and industrial contexts. Participants read and study South African history, culture, and industrial change as well as experience South African townships, meet with political leaders from a variety of political parties, and visit gold mines. Students explore South Africa's apartheid past, the struggles for and painful miracle of its democratic transition and the political-economy of the mining industry where interaction of politics, business, and race are poignant. Specific on-site visits include Robben Island, Soweto mining hostels, the University of Cape Town, the Apartheid Museum, and much more. M. Heun. Not offered Interim 2008.

Transforming Cambodia. The goal of this class is to identify and experience the root causes of abject poverty in Cambodia. Issues to be engaged include food production capacity, land use trends, availability of adequate water or reasonable quality, availability of education and human health. We plan to engage a variety of non-governmental organizations involved in supporting the holistic transformation of communities; CRWRC village projects enabling people to produce greater quantities of healthier food, water filtration and pumping methods, orphanages, Kindergarten classes, a hospital, and several evangelical churches, and the launch of a new Christian university (AIU). Students will contribute service-learning hours in these venues. Additionally, we will engage the cultural underpinnings of the current situation in Cambodia. A visit of the Angkor Wat temples will lay a ancient historical foundation of Cambodian culture, followed by the Killing Fields and Tuol Sleng prison to assess the recent impact of the Khmer Rouge. Students will gain a clear understanding of what current living conditions are in Cambodia, how they have come to be as they are, what the impediments to change are, what can and is being done to make a positive and sustainable change to the average Cambodian citizen, or in other words, how to be agents of redemption in a deeply troubled society. This class is a cooperative learning adventure with Calvin College and Handong Global University (South Korea). Student evaluation will be based on participation with local culture, group discussion, individual journaling, and in a final report describing key features of their learning experience. D. Dornbos Jr. and L. De Rooy A. Kim (Handong Global University).

Seminars/Internships

185/285/385 **Engineering Internship** (0). Students who complete an Engineering Internship during the summer as part of the department's internship program, may receive transcript recognition for their effort. Freshmen, sophomores, and juniors will receive credit for Engineering 185, 285, and 385 respectively. These internships, consisting of engineering work at an appropriate level, should be for a minimum of nine (9), full-time, consecutive weeks. Students must provide a brief written report of their activities under the signature of their supervisor. The students must also make some type of presentation of their internship work during the following semester. The report and copies of the presentation material should be submitted to the department's internship coordinator for approval. Other procedures and activities may be given internship credit. Application for exceptional cases must be made to the internship coordinator.

294/394 **Engineering Seminar** (0). F and S. A seminar devoted to an exploration of topics in engineering. Seminars will cover areas such as the practice of engineering design, non-technical issues in engineering practice, engineering graduate studies, and aspects of engineering analysis. Students will receive transcript recognition for Engineering 294 if they attend eight (8) seminars before being admitted to a B.S.E. concentration and will receive transcript recognition for Engineering 394 if they attend eight (8) seminars after being admitted to a BSE concentration. Plant tours and technical society meetings may be substituted for seminars upon approval. Engineering 294 is not a prerequisite for Engineering 394.

387 **International Engineering Internship** (0). Students, who complete an International Engineering Internship during the summer as part of the department's internship program, may receive transcript recognition for their effort. These internships, consisting of engineering work at an appropriate level, should be for a minimum of nine (9), full-time, consecutive weeks and shall take place in a country other than the United States and Canada. Students must provide a brief written report of their activities under the signature of their supervisor. The students must also make some type of presentation of their internship work during the following semester. The report and copies of the presentation material should be submitted to the internship coordinator for approval. Other procedures and activities may be given international internship credit. Application for exceptional cases must be made to the internship coordinator.

English

*Professors R. Anker, S. Felch, D. Hettinga, J. Netland, K. Saupe, G. Schmidt, J.H. Timmerman, *W. Vande Kopple, D. Ward*
Associate Professors J. Holberg, B. Ingraffia, D. Rienstra, J. Vanden Bosch (chair), E. Vander Lei
*Assistant Professors C. Engbers, G. Fondse, **N. Hull, L. Klatt, L. Naranjo-Huebl, D. Urban, J. Williams*
Instructor J. Zwart
Adjunct M. Admiraal

The department offers a major and minor in English, majors and minors in secondary and elementary English education, a minor in writing, and interdisciplinary minors in ESL, in linguistics, and in journalism. A student may alter any of the recommended programs with the permission of an academic advisor. All professors in the department advise for

the general major and minor. The advisors for the secondary-education programs are K. Saupe, W. Vande Kopple, and J. Vanden Bosch. The advisors for the elementary-education programs are D. Hettinga, N. Hull, and G. Schmidt. The advisor for the linguistics minor is W. Vande Kopple. The advisor for the journalism minor is D. Hettinga. The advisor for the ESL minor is E. Vander Lei. The advisors for the writing minor are C. Engbers, D. Hettinga, J. Netland, G. Schmidt, and E. Vander Lei.

Students who plan to graduate with honors in English must complete a minimum of six honors courses (or 18 hours of honors work): at least three in the English Department (not including Honors English 101) and at least two from the general curriculum. Honors English 101 may count as the sixth honors course required for graduation. Honors students must also complete English 399: Honors Thesis, as one of their three honors courses in English. In addition to maintaining a cumulative GPA of 3.5 or higher, both within the major and overall, students must also earn at least a B+ on their Honors Thesis in order to graduate with honors. For specific questions about Honors requirements in the English Department, contact the chair of the English Department's Curriculum Committee.

ENGLISH MAJOR

English 210 or 211
English 215, 302, 304, 305, or 307 [Either English 215 or 216, but not both, may be taken to satisfy these two line requirements]
English 216, 308, 309, 314, or 321
English 334, 337, 339, or 370
English 345, 346, 347, or 350
English 217 or 310 [Either English 217 or 218, but not both, may be taken to satisfy these two line requirements]
English 218, 311, 312, or 315
English 395
Four English electives
The four English electives include any English Department course with the exception of English 101, 356, 357, and 359. Only one interim course may count towards the major.

ENGLISH MINOR

English 210 or 211
English 215, 216, 302, 304, 305, 307, 308, 309, 314, or 321
English 217, 218, 310, 311, 312, or 315
English 334, 337, 339, 345, 346, 347, 350, or 370
Three English electives
The three English electives include any English Department course with the exception of English 101, 356, 357, and 359. Of the seven courses in the minor, at least two must be 300-level courses in language or literature. Only one interim course may count toward the minor.

WRITING MINOR

English 275
English 301 or 355
English 201, 245, 262, 265, 380, or CAS/ English 248
A literature course chosen in consultation with a program advisor
Two English electives from English 201, 245, 262, 265, 301, 355, 380, or CAS/ English 248 chosen in consultation with a program advisor
One elective chosen in consultation with a program advisor

INTERDISCIPLINARY MINOR IN LINGUISTICS

English 334
English 337
CAS 140
CAS 216
Three electives chosen in consultation with the program advisor

SECONDARY EDUCATION MAJOR IN ENGLISH

English 210 or 211
English 215
English 216
English 217
English 218
English 283, 312, 320, 321, or 322
English 326
English 334, 335, or 337
English 338 or 339
English 346
English 357

Cognate
CAS 230

Ideally, students should take Enlish 357 in the semester immediately preceding their student-teaching semester. Students must complete English 357 successfully before they may student teach. For their student-teaching semester, students must register for both Education 346 and English 359. Before being considered for a student-teaching placement, students must pass (80% or better on each section) all five sections of the English Department Screening Exam. To take this exam, students must make an appointment with the English Department Administrative Assistant. Students have four chances to take the exam per calendar year, and they must allow at least two weeks to elapse between the time they try the exam once and the time the try it again. Additional criteria for approval for student teaching are found in the *Teacher Education Program Guidebook* available in the Education Department.

SECONDARY EDUCATION MINOR IN ENGLISH

English 210 or 211
English 215 or 216
English 217 or 218
English 283, 312, 320, 321, or 322
English 334, 337, or 339
English 346
English 357

All those who elect the Secondary Education Minor in English in academic year 2007-2008 and later must pass (80% or better on each section) all five sections of the English Department Screening Exam. They must pass this exam before they can be certified in minor. To take the exam, students must make an appoitment with the English Department Assistant. Student have four chances to take the exam per calendar year, and they must allow at least two weeks to elapse between the time they try the exam once and the time they try it again.

ELEMENTARY EDUCATION MAJOR IN ENGLISH

English 210 or 211
English 215, 216, or 346
English 217 or 218
English 325
English 326 or 328
English 334, 337, or 339
English 283, 312, 320, 321, or 322
English 356
One English elective

Cognate
CAS 230

ELEMENTARY EDUCATION MINOR IN ENGLISH

English 210 or 211
English 215 or 216 or 346
English 217 or 218
English 325 or 326
English 283, 312, 320, 321, or 322
English 356
One English elective

ELEMENTARY EDUCATION LANGUAGE ARTS GROUP MAJOR

English 210 or 211
English 215, 216, or 346
English 217 or 218
English 283, 312, 320, 321, or 322
English 325
English 326 or 328
English 356
CAS 203 or 215
CAS 214
CAS 230
Two English or CAS electives

ELEMENTARY EDUCATION LANGUAGE ARTS GROUP MINOR

English 210 or 211
English 215, 216, or 346
English 217 or 218
English 325 or 326
English 356
CAS 203 or 215
CAS 214
One English or CAS elective

ENGLISH AS A SECOND LANGUAGE: ENDORSEMENT FOR ELEMENTARY OR SECONDARY EDUCATION

Students in the elementary program who wish to become certified to teach ESL must, in addition to the ESL minor, have a major.

CAS 216
Education 303

English 334 or Spanish 340
English 335
English 338
IDIS 301/302
IDIS 356/357

In addition to completing seven courses, students in the ESL program must fulfill the following requirements:

- Demonstrate competence in written and spoken rhetoric by completing ENGL 101 with a minimum grade of C, and successfully completing one course from CAS 101, 200, or 214.
- Demonstrate competence in at least one foreign language. Competence is defined as the successful completion of the equivalent of two years of study in college or four years in high school with a minimum grade of C in each course.
- IDIS 301 /302 must be taken concurrently with EDUC 303.

ENGLISH AS A SECOND LANGUAGE: NON-EDUCATION MINOR

CAS 216
English 334
English 335
English 338
IDIS 301 or IDIS 302
Sociology 253
An approved elective

*Program advisors are K. Miller (Spanish) and E. Vander Lei (English).

INTERDISCIPLINARY MINOR IN JOURNALISM

CAS 230
English 245
English 265
Three electives chosen in consultation with the program advisor
English 380 or CAS 346

A minimum grade of C (2.0) in English 101 or 102 is required both for graduation and as a prerequisite to any concentration in the English Department. Normally, English 101 is the first course taken in the department. The core requirement in written rhetoric is met by English 101, 100/102, or by examination. The literature core requirement is met by English 205, 210, 211, 215, 216, 217, 218, 219, 283, 285, 290, and 295.

COURSES

100 **Enhanced Written Rhetoric I** (3) F. English 100 is the first part of a year-long enhanced course sequence in Written Rhetoric. See the complete sequence description under English 102. Enrollment in English 100/102 is by special arrangement with Student Academic Services and the English Department

101 **Written Rhetoric** (3). F and S. In this course, students write several expository essays in which they practice rhetorical strategies, research-based argumentation, and methods of composing effective prose. In the process of writing these essays, students consider language as a means of discovering truth about God, the world, and themselves, and they explore its potential to communicate truth and, thereby, to transform culture.

102: **Enhanced Written Rhetoric II** (3) S. In this year-long, enhanced course sequence in Written Rhetoric, students write expository essays, practicing methods of composing effective prose, applying various rhetorical strategies, learning how to conduct academic research, producing research-based argumentation, and developing grammatical and syntactic proficiency in the context of their own prose. In the process of writing these essays and mastering conventions of language, students consider language as a means of discovering truth about God, the world, and themselves; and they explore its potential to communicate truth and, thereby, to transform culture. Prerequisite: English 100.

201 **Academic and Professional Writing** (3). S. A second course in rhetoric and composition, designed for students who wish advanced study of academic writing practices. Includes reading, a consideration of the principles of written rhetoric, and extensive practice in writing short papers in a variety of academic traditions.

205 **Understanding Literature** (3). F and S. This course involves a study of selected literary works with an emphasis on the fundamental elements of literature and methods of reading. Discussion topics include the genres of literature and their conventions, the tools authors use to create meaning and effect, the ways readers can interpret and respond to texts, and the roles of imaginative literature in shaping and reflecting culture. An abiding

concern will be how Christians might take a distinctive approach to this area of human culture.

210 **World Literature I** (3). F and S. This is a course of selected readings and lectures in the literature of the world from the ancient world through the Renaissance, with emphasis on the Western tradition. Additional attention will be given to the literatures of non-Western cultures, such as those of Asia, Latin America, and Africa.

211 **World Literature II** (3). F and S. This is a course of selected readings and lectures in the literature of the world from the Enlightenment to the present, with emphasis on the Western tradition. Additional attention is given to the literature of non-Western cultures, such as those of Asia, Latin America, and Africa.

215 **Survey of British Literature I** (3). F and S. This course surveys major works of British literature from its beginnings to the late eighteenth century.

216 **Survey of British Literature II** (3). F and S. This course surveys major works of British literature from the late eighteenth century into the twentieth century.

217 **Survey of American Literature I** (3). F and S. This course is a chronological study of representative works of the American literary landscape with special attention to various movements from Colonial literature through Realism. The course examines the difficult questions and struggles of human experience as they have been expressed in numerous literary genres from the very beginnings of American cultural history.

218 **Survey of American Literature II** (3). F and S. This is a chronological study of representative works of American literature with special attention paid to various movements from late Realism to the present. Students reflect upon contemporary cultural issues through this survey of historical and artistic works.

219 **Survey of Canadian Literature** (3). This course is a survey of major works of Canadian literature from the nineteenth and twentieth century. Readings include fiction, poetry, and drama, with an emphasis on English Canadian writers. Some attention is given to French Canadian and Native Canadian writers in translation. Not offered 2007-2008.

245 **Basic Journalism** (3). F. A study of the principles and techniques of journalism—especially newspaper journalism—specifically, the definition of news and the varying policies governing the selection and presentation of local, national, and international stories. Against the background of a critical appraisal of current practices, students write, edit, and evaluate news reports and feature stories.

248 **Writing for the Media** (3). F. An introduction to the content, styles, and formats of media scripts. The course emphasizes the differences in media writing compared with more familiar forms of writing, the role of the script as text in producing media programs, the styles of writing used (journalistic, dramatic, polemical, and emotive), and the technical requirements for scripts used to focus the work of directors, actors, camera, and sound technicians, editors, and mixers in creating a media product. Also listed as Communication Arts and Sciences 248. Prerequisite: English 101.

262 **Business Writing** (3). F and I. A course introducing students to the kinds of writing and computer presentations that are required in business-related fields. Students collect examples of and practice composing the types of professional communication that they are likely to craft on the job. The class is conducted as a workshop; students consult with each other and with the instructor. Each student submits several projects. The class also includes a group report (with written, multi-media, and oral portions), in-class writing and computer exercises, and the use of word-processing and presentation software. Prerequisite: Completion of English 101 with a grade of C+ or above.

265 **Feature Journalism** (3). S. A course in the art of writing feature stories. The course pays particular attention to the process by which specialized information from various fields—government, science, engineering, medicine, law, religion, and business—is prepared for public comprehension. English 245 is recommended but not required as a prerequisite.

275 **The Craft of Writing** (3). F. A course in the foundational principles and practices of

writing. Students compose in a variety of written genres, exploring composition from two perspectives—how texts are constructed and what they accomplish. From these two perspectives, students will consider the two classical categories of written genres: Poetics (the study of belletristic writing) and rhetoric (the study of persuasive writing). This is a foundational course for students who are interested in advanced study of writing. Prerequisite: English 101 or approval of the instructor.

283 **African-American Literature** (3). F and S. A chronological survey of major writers and works of African-American literature. Readings will include fiction, poetry, and drama, with special attention paid to historical and cultural contexts.

285 **Russian Literature** (3). S. A study of major Russian writers of the nineteenth and twentieth centuries. Authors to be read include, but are not limited to, Gogol, Turgenev, Dostoevsky, Tolstoy, Bulgakov, Akhmatova, and Solzhenitsyn. Special attention will be paid to spiritual and moral issues, which are of central importance in the Russian literary tradition.

290 **Literature and Women** (3). F. Readings will emphasize poems, stories, plays, essays, and literary criticism written by women; these readings will include both the established (e.g., Jane Austen, Emily Dickinson, Edith Wharton, and Charlotte Bronte) and the recovered (e.g., Anne Lock, Aphra Behn, Charlotte Smith, and Zora Neale Hurston). In addition to focusing on the many contributions made by women to literary culture, this course will examine male and female representations of the feminine experience as well as the issue of gender and its implication for literature.

295 **Special Topics in Literature: The Graphic Novel** (3). S. A survey and evaluation of the graphic novel, examining its medium and poetics to place its aesthetics within the history and context of modern literary studies. Central attention is given to the effects produced as a result of the combination of textual and visual narratives.

296 **Film as a Narrative Art** (3). F. In-depth examination of the art of narrative film, focusing each semester on one or more directors, genres, or styles of filmmaking. The course pays particular attention to narration and narrative structure, characterization, conflict, setting, and point of view and also acquaints students with literary adaptation and with the contribution of film image and sound to narrative development. The course emphasizes the development of student skills in writing about film. Also listed as CAS 296.

301 **Creative Non-fiction** (3). * F. A course in the principles and practice of creative non-fiction. Students will examine a variety of models and engage in extensive practice in the genre. Special emphasis will be given to the relationship of faith and art for the writer. Prerequisite: English 101. Not offered 2007-2008.

302 **British Literature of the Middle Ages** (3). * F. This course examines the ways in which the literature of the Anglo-Saxon and Middle English periods both reflect and impact the culture out of which they emerge. In studying an age in which art, philosophy, history, architecture, bookmaking, and social and language issues converge in the literature in strikingly uniform ways, students will understand the engagement of many cultural forces and the effect of that engagement upon a culture's expression. Not offered 2007-2008.

304 **British Literature of the Sixteenth Century** (3). * A study of the poetry and of some prose of the sixteenth century and of the drama of the sixteenth and early seventeenth centuries.

305 **British Literature of the Seventeenth Century** (3). * A study of poetry and prose in England from 1600 to 1660 with emphasis on the religious lyric, especially the poetry of Donne and Herbert.

307 **British Literature of the Eighteenth Century** (3). * S. A study of writing and its cultural contexts, with detailed attention to the works of Dryden, Swift, Addison, Pope, Johnson, and Boswell. Not offered 2007-2008.

308 **British Literature of the Early Nineteenth Century** (3). * F. A study of the Romantic writers of England in both poetry and prose, with intensive study of Blake, Wordsworth, Coleridge, Byron, Shelley, and Keats. Not offered 2007-2008.

309 **British Literature of the Middle and Later Nineteenth Century** (3). * S. A study

of the Victorian writers of England in both poetry and prose, including intensive study of Tennyson, the Brownings, and Arnold among the poets and Arnold, Newman, Carlyle, Huxley, and Ruskin among the prose writers. Not offered 2007-2008.

310 **Literature of the United States I: Settlement to Civil War** (3). * F. A close examination of the fiction, poetry, and non-fiction prose of the United States prior to the Civil War. Special attention is given to major figures and cultural issues within the diverse literary landscape of America. Representative writers include Bradstreet, Hawthorne, Melville, Emerson, Thoreau, and Whitman.

311 **Literature of the United States II: Civil War to the Great Depression** (3). * F and S. A close examination of the fiction, poetry, and non-fiction prose of the United States from the Civil War to the Great Depression. Special attention is given to selected figures and cultural issues within the diverse literary landscape of America. Representative writers include Dickinson, Twain, Howells, James, Wharton, Cather, Fitzgerald, Robinson, Frost, and Eliot.

312 **Literature of the United States III: World War II to the Present** (3). * S. A close examination of the fiction, poetry, and non-fiction prose of the United States from World War II to the present. Special attention is given to selected figures and cultural issues within the diverse literary landscape of America. Representative writers include Faulkner, O'Connor, Welty, Ellison, Roethke, Bellow, Baldwin, and Updike.

314 **The British Novel** (3). * F. A study of the British novel from its origins through its proliferation of experimental forms in the early twentieth century. This course emphasizes the art and thought of the major novelists, the growth of major strains such as epic, romantic, realistic, and symbolic fiction, and the history of ideas that influenced the growth of novelistic fiction.

315 **The American Novel** (3). * F. A chronological study of the major novels of the American literary tradition, with reference to the historical and cultural frame in which each work rests.

318 **Non-Western Literature: Africa or South Asia** (3). S. A historical survey of significant works of literature from a non-Western region of the world. The focus of the course will alternate between the literature of Africa and South Asia. Not offered 2007-2008.

320 **Modern British and American Poetry** (3). * Intensive reading of selected works of major twentieth-century British and American poets.

321 **British and Commonwealth Literature of the Twentieth Century** (3). * The readings include fiction, poetry, drama, and non-fiction prose of twentieth-century British literature. Special attention is given to the emergence of high Modernism in the 1920's and 1930's, as well as its eventual permutation into Post-Modernism and to the effects of the two World Wars and the demise of the British Empire on the development of the literary tradition. Selected writers include James Joyce, Virginia Woolf, T.S. Eliot, W.B. Yeats, Dylan Thomas, George Orwell, Doris Lessing, Graham Greene, V.S. Naipaul, and Derek Walcott.

322 **Modern Drama** (3). * S. A study of major British, American, and Continental playwrights of the twentieth century. Playwrights to be read may include, but are not limited to, Ibsen, Chekhov, Shaw, Pirandello, Brecht, Williams, Miller, O'Neill, Beckett, Pinter, Shaffer, Fugard, and Norman. Emphasis is placed on the significant movements in modern drama and questions of gender-based criticism. Not offered 2007-2008.

325 **Children's Literature** (3). * F and S. A study of children's literature, including intensive reading of the best of this literature and the application of literary standards to what is read.

326 **Adolescent Literature** (3). * F. A study and critical evaluation of the nature and content of adolescent literature, including intensive reading, application of literary standards, and discussion of issues in the field of young adult literature: censorship, selection criteria, reader-response theories, ethnicity, and gender-based criticism.

328 **Recent Literature for Children** (3). * S. A survey and evaluation of children's and young adult literature, with emphasis on the

more recent literature; consideration of criteria for selecting such literature in the classroom; examination of reference tools; recent and historical trends; issues and approaches to understanding children's and young adult literature; and study of several representative works. Prerequisite: English 325 or English 326. Not offered 2007-2008.

334 **Linguistics** (3). * F and S. A study of some of the more interesting and important characteristics of language, with particular attention given to the processes of language acquisition; to patterns and effects of linguistic change through time; to variations in language from region to region, social class to social class, and gender to gender; and to the assumptions informing the nomenclature, methodology, and scope of traditional, structural, transformational, generative-semantic, and text grammars. The course incidentally considers the relationship of these grammars to the study of reading and composition.

335 **Sociolinguistics and Issues in Language Education** (3). * F. This course involves two major activities: (1) an examination of selected topics that have arisen in recent sociolinguistic research, particularly those topics centering on questions about how standard and nonstandard languages and dialects appear to affect people's educational success; and (2) an evaluation of how these topics should affect approaches to language education, particularly approaches to teaching English as a Second Language (ESL). Prerequisite: English 101. Not offered 2007-2008.

337 **History of the English Language** (3). * S. An analysis of the changes that have occurred throughout the history of the English language, based on an intensive study of selected portions of the Oxford English Dictionary and passages from Chaucer, Shakespeare, and various English translations of the Bible.

338 **Grammar for Teachers of ESL** (3). * S. In this course, students will review the fundamentals of English grammar, learn of the possibilities and limitations of teaching grammar in the ESL classroom, and research or practice the teaching of some of this grammatical material, so that they can make the most of that part of the ESL curriculum typically dedicated to the teaching of grammar. Prerequisite: English 101.

339 **English Grammar** (3). * I. A study of traditional grammar, focusing on its history, its system, its applications, its competitors, and its place in the middle school and high school classroom; special emphasis will be given to the system and terminology of this grammar.

345 **Chaucer** (3). * A study of Chaucer's *Canterbury Tales* and selections from his minor work, which reflect his handling of the major cultural and religious events and issues of his time. Supplementary study of other works and literary movements related to the period are included.

346 **Shakespeare** (3). * F and S. A study of the major works of William Shakespeare.

347 **Milton** (3). * S. A study of the poetry and prose of John Milton. Not offered 2007-2008.

350 **Major Authors** (3). * A course focusing on the major and minor works of a single author by examining that author's writings in their historical, cultural, and religious contexts. Not offered 2007-2008.

355 **Creative Writing** (3). * F and S. A course in the principles and practice of fiction or poetry, with the emphasis to be announced prior to registration each time the course is offered. Students will examine a variety of models and engage in extensive practice. Special emphasis will be given to the relationship of faith and art for the writer. Students may take both the fiction and the poetry version of the course for credit. Offered as poetry writing in Fall 2007 and as fiction writing in Spring 2008.

356 **Language, Grammar, and Writing for the Elementary Classroom** (3). * F. An introduction to several significant and practical aspects of the nature of language, a review of the nature of traditional grammar, including some comparisons of traditional grammar with more recently developed grammars, and an exploration of the relationships between these grammars and composition instruction and practice.

357 **Teaching of Writing** (3). * F. A course in the principles, practice, and pedagogy of composition, especially as these apply to middle and high school writing programs. Extensive reading and frequent exercises in

composition, revision, and evaluation. Majors in secondary education programs must take this course in the fall semester of their final year.

359 **Seminar in Principles of and Practices in Secondary Education** (3). S. A course in perspectives on, principles of, and practices in the teaching of English on the secondary level. This course should be taken concurrently with Education 346: Directed Teaching. Before taking English 359, students must pass the English Department Screening Exam and complete English 357 and Education 302/303. Before taking English 359, students normally also complete Education 307 and Education 398.

370 **Literary Theory and Criticism** (3). * S. An introduction to contemporary theories and methodologies of literary criticism with investigations into their historical origins and development. The course includes illustrations of the various methods, as well as some practical criticism.

380 **Internship in Journalism and Publishing** (4). S. A practicum permitting students to apply theoretical, technical, and ethical principles to specific journalistic activities. Students may be placed with the publishers of magazines or newspapers, publishing houses, or other businesses. Each student works ten hours per week under an agency supervisor and participates in seminars on campus. Prerequisites: Junior or senior status, a 2.5 college GPA, an average grade of 2.5 or higher in advanced writing courses taken (English 245, 265, 301, and 355), and permission of the English Department internship supervisor.

390 **Independent Study** (3). F, I, and S. Prerequisite: Permission of the department chair.

395 **Senior Seminar** (3). F and S. As the capstone course in the English major, this senior seminar is designed to nurture Christian reflection on issues related to language and literary studies, such as the significance of story and literary expression, the relationship of language and meaning, and the ethical implications of language and story. Students also consider vocational opportunities for those who love words. These contemporary literary and linguistic issues are framed by readings from within the tradition of Christian aesthetic reflection as well as from Reformed cultural criticism and theology. Prerequisites: Biblical Foundations I or Theological Foundations I, Developing a Christian Mind, and Philosophical Foundations.

399 **Honors Thesis** (3). F and S. A substantial work of research and criticism in the field of language or literature; required for those graduating with English Departmental Honors.

Graduate Courses

510 **Literature for the Adolescent** (3). A survey and evaluation of adolescent literature, an examination of reference tools and approaches to the teaching of adolescent literature, a consideration of criteria for selection, and a critical study of several representative works. Not offered 2007-2008.

511 **Studies in Analytical Approaches to the Teaching of Literature** (3). An examination of the theoretical considerations underlying various approaches to teaching literature at the secondary level and application of critical approaches to selected literary works. The specific subject matter will be defined each time the course is offered. Not offered 2007-2008.

531 **Language and the Elementary Classroom** (3). A study of some aspects of traditional grammar, an introduction to the history of the English language, and an examination of current linguistic theory and concerns. Special emphasis is placed on the implications of this knowledge for classroom teaching. Not offered 2007-2008.

537 **Teaching of Writing in Elementary and Middle Schools** (3). A course in the principles and practice of writing, including the study of techniques appropriate for teaching elementary and middle school students to write well. Not offered 2007-2008.

580 **Principles, Practices, and Programs in Secondary English Education** (3). An advanced methods course for those teachers working at the middle school or high school level, involving general principles, materials, and pedagogical practices with emphasis on current trends. Each student will make a special study of a given area of language, composition, or literature. Not offered 2007-2008.

581 **Methods and Materials in the Language Arts** (3). A study of programs and techniques of effective teaching of language arts in the elementary school and a review of current materials in relationship to improvement of instruction. Not offered 2007-2008.

590 Independent Study.

English as a Second Language

These interdisciplinary minors in ESL prepare students to teach English as a Second Language within the U.S. or abroad. Students in elementary and secondary education programs must fulfill the requirements for the ESL education minor. Students interested in teaching abroad or in programs such as community education, literacy, or church outreach should fulfill the requirements for the non-education minor. Program advisors are K. Miller (Spanish), M. Pyper (Spanish), and E. Vander Lei (English).

ENGLISH AS A SECOND LANGUAGE EDUCATION MINOR (21 hours)

CAS 216
English 334 or Spanish 340
English 335
English 338
Interdisciplinary 356 or 357
Interdisciplinary 301/302 (concurrent with Education 302-303)
Education 303 (concurrent with Education 302 and IDIS 301/302)

Note that English competency is verified by successful completion of English 101 (minimum grade of C) and one course from CAS 101, 200, or 214. Students must also complete Calvin's foreign language core requirement.

ENGLISH AS A SECOND LANGUAGE NON-EDUCATION MINOR (21 hours)

CAS 216
English 334
English 335
English 338
IDIS 301 or IDIS 302
Sociology 253
An approved elective

Environmental Science, Environmental Studies

The College offers a major program of concentration in Environmental Science with an emphasis in either biology, chemistry, or geology and it offers a group minor in Environmental Studies. The Environmental Science major program of concentration is intended for students who plan to pursue a career requiring scientific training in environmental problems and their solutions. The major will prepare students for jobs in a variety of fields and will prepare them for further study in certain graduate programs such as ecology, environmental science, natural resource management, or environmental biology. Students interested in environmental issues, but who wish to pursue graduate study in chemistry or geology, are encouraged to complete a disciplinary major and the environmental studies minor.

Students who major in environmental science must choose one of three emphases. Those interested in careers in environmental biology should complete the biology emphasis, those interested in careers in environmental geology should follow the geology emphasis, and those interested in careers in environmental chemistry should follow the chemistry emphasis.

The Environmental Studies group minor program of concentration is intended for students who are following a disciplinary major and who also have an interest in studying a broad range of environmental problems and issues at the local, national, and global levels. Because the study of such issues is truly interdisciplinary in scope, the environmental studies minor is appropriate for students majoring in the humanities, the social sciences, or the natural sciences. While disciplinary majors with environmental interest are encouraged to complete the entire group minor, the Environmental Studies courses also may be taken singly as electives to enrich a program of study.

The advisor for students who choose the biology emphasis is R. Van Dragt; the advisor for students who choose the chemistry emphasis is K. Piers; and the advisor for students who choose the geology emphasis is R. Stearley. The advisor for the Environmental Studies group minor program is H. Aay.

ENVIRONMENTAL SCIENCE MAJOR—BIOLOGY EMPHASIS

Biology 141
Biology 242
Biology 243
Biology 345
Two of Biology 336, 341, 344, 346, or approved 300-level courses
Chemistry 103
Chemistry 104
Chemistry 253 or 261
Chemistry 271-281
Geology 151
Geology 311
Geology 312

ENVIRONMENTAL SCIENCE MAJOR—CHEMISTRY EMPHASIS

Chemistry 103
Chemistry 104
Chemistry 201
Chemistry 253 or 261
Chemistry 271-281
One of Chemistry 262, 304, or 323
Biology 141
Biology 242
Biology 345
Geology 151
Geology 311
Geology 312
One of Biology 243 or Geology 212, 304, 314, 322 or approved alternative

ENVIRONMENTAL SCIENCE MAJOR—GEOLOGY EMPHASIS

Geology 151 or 120
Geology 152
Geology 215
Geology 311
Geology 312
Biology 141
Biology 243
Biology 345
Chemistry 103
Chemistry 104
Chemistry 253 or 261

Chemistry 271
Chemistry 281
One of Biology 242, Geology 212, 304, 317, 322 or approved alternative elective

Environmental Science Cognates (all emphases)
Mathematics 143-132 or Mathematics 161-162 and 243
Environmental Studies 210
Environmental Studies 302
Environmental Studies 395

In order to be admitted as a major in the Environmental Science program, a student must have completed three college-level science courses with a minimum grade of C (2.0) in each course and be approved by the committee, which oversees the Environmental Science program.

Beyond the requirements of the general honors program, the Honors Program in Environmental Science requires: 1) A cumulative grade point average of at least 3.3 in courses contributing to the major; 2) one course taken for honors among Biology 141 or 242, Chemistry 103, or Geology 151; 3) one course taken for honors between Environmental Studies 210 or 302; 4) one course taken for honors among Biology 345, Chemistry 271 or 281, or Geology 312; 5) completion of Environmental Studies 395 with honors; and 6) completion of a practical experience through Environmental Studies 385, an independent study (390 course) in Biology, Chemistry, or Geology, or another approved practicum.

GROUP MINOR IN ENVIRONMENTAL STUDIES

Environmental Studies 210
Environmental Studies 302
Environmental Studies 395
Two electives from Biology 345, 352; CAS 395; Chemistry 101; Environmental Studies 385; Economics 332; Engineering 306; Geography 110, 120, 191, 221/222, 251, 320, 351; Geology 151, 311, 312 or an approved interim course.
One additional course approved by the program advisor

ELEMENTARY AND SECONDARY INTEGRATED SCIENCE STUDIES

Students in the Elementary or Secondary Education Program wishing to major or minor in science should consult the Science Education section of the catalog.

COURSES

210 **Human Modifications of the Global Environment** (3). F and S. As population and affluence have increased and technology's role has grown, human activities have transformed natural environments around the globe. This course surveys and examines how a wide variety of human enterprises such as agriculture, industry, recreation, and urbanization have had and continue to have far-reaching environmental consequences everywhere on earth. These impacts are assessed by standards such as ecological well being and sustainability, human habitability, and quality of life. Not open to first-year students. Also listed as Geography 210.

302 **Environment and Society: Issues and Policies** (3). * S. The interactions among population, resources, technology, economics, and public policy are studied in order to understand and address the environmental issues and problems of our day. Attention is focused upon energy, material, and food resource issues as well as upon population and resource relationships. Political, economic, and technological policies plus individual lifestyles are considered as part of responsible earth keeping. Not open to first-year students. Prerequisite: Environmental Studies 210 or permission of the instructor.

385 **Internship in Environmental Studies** (3). * F or S. This course is an internship involving field application of the concepts and principles learned as part of the environmental studies supplementary concentration or the environmental science group concentration. A student is placed in a position in a governmental agency, a not-for-profit organization, or a corporate firm, which builds on previous instruction in the student's program of concentration in an area related to environmental matters. Students are assigned a specific project and work under the direct supervision of an employee of the govern-

mental, non-profit, or business entity, as well as under the supervision of the instructor. Prerequisites: Environmental Studies 210, 302, and permission of the instructor.

395 **History and Philosophy of Environmental Thought** (3). * S. This course aims to develop a Christian philosophy of the environment and environmental management. Issues, problems, and controversies in environmental ethics are explored. Environmental thought is explored historically, through the perspectives of contemporary environmental movements, and finally from a Reformed, Christian perspective. Prerequisites: Environmental Studies 210 and 302 or permission of the instructor.

French

Professors G. Fetzer, O. Selles (chair)
Associate Professor, J. Vos-Camy
Assistant Professors I. Konyndyk, L. Mathews
Adjunct C. DeJong

The department offers courses of study for students interested in continuing work on the graduate level, for those interested in careers in which foreign language plays a key role, and for those interested in teaching French at the secondary or elementary school levels. Programs in the department include major or minor concentrations in French and major or minor concentrations in secondary and elementary education. Approved courses from Calvin's Study in France program may be applied to the program of concentration. The Cross-Cultural Engagement core requirement may be met by the department's W60, W80 interim courses, or by the Study in France program (STFR 230). The core literature requirement may be met by one of the following: French 217, 311, 312, 313, or 314. Major and minor students are encouraged to consult the *French Department Handbook*, available from the departmental office or website.

FRENCH MAJOR:

French 215
French 216
French 217
Two from French 219, 220, 221, 280 or Study in France 230
Three from French 295, 311, 312, 313, 314, 315, 371, 390 (Interim Assistant), the department's Interims abroad (W60, W80), or Study in France 295, 315, and 316
Two approved electives (6 s.h. minimum), beyond French 122 or 201, and excluding IDIS 356, 357, 359.

FRENCH MINOR:

French 215
French 216
French 217
Two from French 219, 220, 221, 280 or Study in France 230
Two approved electives (6 s.h. minimum), beyond French 122 or 201, and excluding IDIS 356, 357, 359.

FRENCH ELEMENTARY/SECONDARY EDUCATION MAJOR:

French 215
French 216
French 217
French 315 or Study in France 315
IDIS 356 (elementary) or IDIS 357 (secondary)
Two courses from French 219, 220, 221, 280 or Study in France 230
Two courses from French 295, 311, 312, 313, 314, 371, the department's Inter-

ims abroad (W60, W80), or Study in France 295 and 316
One approved elective (3-4 s.h.), beyond French 123 or 202.

FRENCH ELEMENTARY/SECONDARY EDUCATION MINOR:

French 215
French 216
French 217
IDIS 356 (Elementary) or IDIS 357 (Secondary)
Two courses from French 219, 220, 221, 280 or Study in France 230
One approved elective (3-4 s.h.) beyond French 123 and 202

In order to qualify for the elementary or secondary teaching internship in French, all major and minor students are expected to pass, prior to the teaching internship, a departmental oral proficiency exam and a written test in addition to the competency exam administered by the State of Michigan. As of 2007-2008, French Education majors are required to take an external oral proficiency interview in order to be certified. A ranking of Advanced-Low on the ACTFL Proficiency Scale constitutes the minimum required level of proficiency. Directed teaching in French is available only during the spring semester. Students interested in the teacher education options should consult the *Teacher Education Program Guidebook*, available from the Education Department. To be admitted to the Teacher Education Program, a student must have a cumulative GPA of at least 2.5 in the courses required for the major and/or minor.

COLLEGE LANGUAGE REQUIREMENT

Completion of French 113, 123, or 202 satisfies the college language requirement.

STUDY IN FRANCE. Calvin offers an advanced language and literature program during the fall semester in Grenoble. Through courses taught by the program director and those offered at the Centre Universitaire d'Etudes Françaises of the Université de Grenoble 3 Stendhal, students obtain 15 semester hours of language, literature, and culture. French 215 and 216 are prerequisites for the advanced program. French 217 is recommended. The advisor for this program is G. Fetzer. The program is offered Fall, 2007 and Fall, 2008. It will not be offered in Fall, 2009.

COURSES

101 **Elementary French I** (4). F. An introductory course in the comprehension and use of spoken and written French.

102 **Elementary French II** (4). S. Continuation of French 101.

111 **Multisensory Structured French I** (4). F. An introductory course in the comprehension and use of spoken and written French designed to meet the special needs of at-risk students. Materials are presented with an emphasis on understanding the nature of language. General language-learning skills are developed as specific foreign language goals are met. Students are assigned to this course on the basis of adequate documentation of being at-risk.

112 **Multisensory Structured French II** (3). I. The second course in a three-course sequence of language study designed to meet the special needs of at-risk students. Materials are presented with an emphasis on understanding the nature of language. General language-learning skills are developed as specific foreign language goals are met. The course is open to students who, on the basis of adequate documentation, are continuing from French 111 and expect to complete through the French 113 level.

113 **Multisensory Structured French III** (4). S. The third course in a three-course sequence of language study designed to meet the special needs of at-risk students. Materials are presented with an emphasis on understanding the nature of language. Introduction to cultures where French is spoken, including North Africa, West Africa, and Quebec provides the opportunity for understanding how the language and culture interacts to shape expression in various contexts. The course is open to students who, on the basis of adequate documentation, are continuing from French 112. Completion of French 113 satisfies the foreign language requirements.

121 **Introductory French** (4). F. The first course in a closely integrated and intensive

sequence of language study involving two semesters and the interim, for students who have completed two years of high school French, but who, on the basis of a placement test, are not prepared for French 201. The course is also open with the permission of the department to students who have had no previous French in high school.

122 **Intermediate French** (3). I. The second course in a closely integrated and intensive sequence of language study involving two semesters and the interim, for students who have completed two years of high school French, but who, on the basis of a placement test, are not prepared for French 201.

123 **Intermediate French** (4). S. This is the third course in a three-course intensive sequence of language study, which aims to develop proficiency in the areas of listening, speaking, reading, and writing in French, allowing an intermediate level of interaction with native speakers and understanding of authentic text. An introductory study of francophone cultures provides insights into the historical, cultural, sociological and faith contexts that have shaped the French language. Completion of French 123 (or French 202) satisfies the foreign language core requirement

201 **Intermediate French** (4). F. Further training in oral and written French, study of the structure of the language, practice in speaking, listening, reading, writing and introductory study of francophone cultures.

202 **Intermediate French** (4). F and S. Further training in spoken and written French, study of the structure of the language, practice in listening, reading, and writing, and continuing study of francophone cultures. This final course in the four-course sequence provides insights into the historical, cultural, sociological, and faith contexts, which have shaped the French language. Completion of French 202 (or 123) satisfies the foreign language core requirement.

215 **Advanced Conversation** (3). F. This course is designed to develop advanced oral comprehension skills, as well as continuing competence in spoken French through exercises, drills, conversation in class, and in small groups. Prerequisite: French 123, 202, or the equivalent.

216 **Advanced Grammar and Composition** (3). S. Systematic study of advanced grammar and composition. Prerequisite: French 123, 202, or the equivalent.

315 **Advanced Stylistics and Phonetics** (3). For teacher education candidates and for students who wish to increase fluency in oral and written French. Continued study of selected areas of the French language, such as grammar, pronunciation, vocabulary, stylistics, and the written dissertation. Prerequisite: French 216 or the equivalent. Not offered 2007-2008.

IDIS 356 **Foreign Language Education in the Elementary School** (3). *F and I. Theory and practice of foreign language teaching in the elementary school. Study of language skill development, second language acquisition, methodologies, curricula, and programs. Off-campus school visits for observation and aiding experience. Should be taken in the junior or senior year, prior to student teaching. Required for elementary certification in foreign language, K-12 endorsement, and ESL elementary endorsement. Prerequisite: completion of or concurrent registration in Education 302/303.

IDIS 357 **Introduction to Foreign Language Pedagogy** (3). F. An introduction to the major principles and practices of foreign language pedagogy, offering a study of various methodologies and the major controversies associated with them. The course explores how a Christian approach to education affects foreign language pedagogy and how foreign language pedagogy interacts with the language learner's personal growth. It also introduces the prospective educator to the teaching of the basic skills, to issues in evaluation and assessment, and the use of technologies in the foreign language classroom. This course should be taken in the junior or senior year, prior to student teaching. Required for secondary certification in foreign language and for the ESL secondary endorsement. Prerequisite: completion of or concurrent registration in Education 302/303.

IDIS 359 **Seminar in Secondary Foreign Language Pedagogy** (3). S. A seminar reinforcing the major principles and practices of foreign language pedagogy on the secondary level for students during their semester of di-

rected teaching. The course will provide an opportunity for collaborative work on putting theoretical and pedagogical matters of immediate concern into a practical framework. This course Is required concurrently with Education 346. This course does not count as part of the major or minor program. Prerequisites: Education 302/303, concurrent registration in Education 346, and successful completion of the department proficiency exam.

Literature and Civilization

217 **Introduction to French Literature** (4). *S. An overview of selected major writers, movements, and genres from the Middle Ages to the present. Conducted mainly in French. Prerequisite: French 215 or 216.

219 **Francophone Literature of Africa and the African Diaspora** (3). F. An introduction to representative writers and works of French expression from Africa and the African Diaspora. Conducted mainly in French. Prerequisite: French 215 or 216, 217 recommended.

220 **French Culture and Society Through the Media Arts** (3). A study of current and popular French culture and society as perceived and created through various forms of literature and media art. Conducted mainly in French. Prerequisite: French 215 or 216. Not offered 2007-2008.

221 **French for the Professions** (3). An introduction to the terminology and standard forms of oral and written communication used in selected professions in the francophone world, especially France. The course also considers the cultural and economic context of that communication. Conducted mainly in French. Prerequisite: French 215, 216 or French 202 with permission of the instructor. Not offered 2007-2008.

280 **Francophone Culture and Society in North America** (3). S. A survey of francophone culture and society in North America from the time of the French colonial period to the present through an overview of literature (theater, novel, poetry) and various media (film, music, news). While special attention will be given to the province of Quebec, the course will also examine French-speaking communities in areas such as Louisiana, Ontario, New Brunswick, and Manitoba. Conducted mainly in French. Prerequisite: French 215 or 216, 217 recommended.

295 **Special Topics in French** (3). Not offered 2007-2008.

311 **French Drama** (3). *A study of the evolution of the theater in France, from the Middle Ages to the present. Playwrights studied include Corneille, Molière, Racine, Beaumarchais, Hugo, Rostand, Sartre, and others. Conducted in French. Prerequisite: French 217, 219, or 220. Not offered 2007-2008.

312 **French Prose I** (3). *A study of major literary works of fiction and non-fiction from the Middle Ages through the French Revolution. Conducted in French. Prerequisite: French 217, 219, or 220. Not offered 2007-2008.

313 **French Poetry** (3). *S. This course studies the history and nature of French poetry by means of extensive reading and examination of representative poets, with special attention to those of the modern period. Major figures include Villon, Ronsard, Baudelaire, Rimbaud, Mallarmé, Valéry, and Bonnefoy. Attention to key polemical debates leads to broader considerations of language, art, and culture and helps students appreciate the ways in which poetry informs our understanding of the human experience. Classes are conducted in French. Prerequisite: French 217, 219, or 220.

314 **French Prose II** (3). *A study of major literary works of fiction and non-fiction from the French Revolution to the present. Conducted in French. Not offered 2007-2008.

371 **Literary Doctrines and Problems** (3). *A study of literary works and selected critical perspectives in the French tradition that inform our appreciation of those works. Readings include major literary works and representative voices from the history of French critical discourse, and may include Saussure, Blanchot, Cixous, Baudrillard, Lyotard, and others. Conducted in French and English. Not offered 2007-2008.

Gender Studies

An interdisciplinary minor, Gender Studies focuses on gender issues and relations, locating them within a Christian worldview. The minor consists of six courses taken from at least four different departments. No more than one interim is allowed in the minor. The program director is S. Goi of the Political Science Department. Program advisors include: H. Bouma III (Biology), C. De Groot (Religion), K. DuMez (History), K. Groenendyk (Communications, Arts and Sciences), R. Groenhout (Philosophy), M. Mulder (Sociology and Social Work) and C. Van Dyke (Philosophy).

THE MINOR REQUIRES:

1. Three courses drawn from the following regularly offered gender-focused courses:
Communications 270
English 290
History 256 or 268
Women's Health Interim
Philosophy 211
Political Science 312
Psychology 222
Sociology 250

2. Two additional gender-focused or gender-cognate courses drawn from the following:
Any of the above listed courses;
or, special topics, gender centered courses, such as:
Religion 313
Sociology 304
Sociology 316
An approved interim
or, a gender-cognate course. A gender cognate course is one in which the student negotiates a contract in a non-gender focused class to add a significant and theoretically focused gender component to normal class requirements. These components may include, but are not limited to, additional readings and guided research of a typical paper. These additional components could factor into an honors contract. The course professor must be committed to providing guidance in the area of gender analysis as it affects the content of the course. The contract should be developed in consultation with the director of the Gender Studies Minor.
Only one gender-cognate course may count towards the minor.
3. Interdisciplinary 394

COURSES

IDIS 394 **Gender Studies Capstone** (3). S. An integrative course that builds on previous work in the minor, focusing particularly on current research, theory, and controversies in the field. Special attention will be paid to nurturing mature Christian thinking on gender issues.

Geology and Geography

Professors H. Aay, J. Bascom, J. Curry, R. Stearley (chair), G. Van Kooten
Associate Professor D. van Dijk
Assistant Professors K. Bergwerff, J. Van Horn

Programs in the department include a major and a minor in geology, a major in environmental geology, a major and a minor in geography, a group minor in environmental studies, as well as majors and minors for teacher education programs. Group majors consisting of geology, chemistry, engineering, or physics are also available.

GEOLOGY MAJOR

Geology 151 or 120
Geology 152
Geology 212
Geology 215
Geology 311
Geology 316
Geology 317
Geology 387
Two electives from Geology 251, 304, 312, 313, 322, 386, 390, 395, 396, Geography 221 and 222, or an approved interim course.
Physical Science Senior Capstone Course or Geology 386

Cognate
Chemistry 103
Mathematics 143 or 161

Students who desire a B.S. degree must complete a minimum of 58 semester hours of science and mathematics. Students who wish to pursue a career or graduate study in geology and who desire a B.S. degree must complete the minimum requirements of the geology major and should also take the following courses:

Geology 313
Chemistry 104
Physics 133
Physics 134
Math 161 or 132
English 201
Geology Field Methods Course

ENVIRONMENTAL GEOLOGY MAJOR

Geology 151 or 120
Geology 152
Geology 215
Geology 304
Geology 311
Geology 312
Geology 317
Geology 387
Geography 221
Geography 222
Environmental Studies 210
Environmental Studies 302
Environmental Studies 385 or Field Course
Environmental Studies 395
Two electives from Chemistry 253, Engineering 306, Geology 212, 251, 316, 322 or Physics 133

Cognates
Chemistry 103
Chemistry 104
Mathematics 161 or 143
Mathematics 162 or 132

GEOLOGY MINOR

Geology 151 or 120
Geology 152
Geology 215
Three electives from Geology 212, 251, 304, 311, 312, 313, 316, 317, 322, 386, 390, 395, 396, Geography 221 and 222.

Cognate
Chemistry 103

EARTH/ SPACE SCIENCE MAJOR FOR SECONDARY EDUCATION

Geology 151
Geology 152
Geology 212
Geology 215
Geology 251
Geography/Interdisciplinary 191
Astronomy 211
Astronomy 212
SCES 214
An approved elective

Required Cognates
Mathematics 132 or 161
Chemistry 103
One course in college or high school physics

EARTH/SPACE SCIENCE SECONDARY EDUCATION MINOR

Geology 151
Geology 152
Geology 251
Geography 191
Astronomy 211
Astronomy 212
SCES 214

Required Cognates
Mathematics 132 or 161
One course in college or high school physics

GEOGRAPHY MAJOR

Geography 110
Geography 120
Geography 210
Geography 221
Geography 222
Geography 230
Geography 310
Geography 311
Geography 320
Geography 380
Two from Geography 191, 240, 241, 242, 251, 322, 351, 385, 390, 395, Environmental Studies 302, an approved interim course

Cognate
Mathematics 143 or Psychology 255

GEOGRAPHY MINOR

Geography 110
Geography 120
Geography 210
Geography 230
Geography 320
One approved elective

GEOGRAPHY ELEMENTARY EDUCATION MAJOR

Geography 110
Geography 120
Geography 210
Geography 221
Geography 222
Geography 230
Geography 241
Geography 311
Geography 320
At least four semester hours of electives from the approved list, which can be found in the *Teacher Education Guidebook*.

ELEMENTARY/SECONDARY EDUCATION GEOGRAPHY MINOR

Geography 110
Geography 120
Geography 210
Geography 241
IDIS 375 (secondary only)
Plus six hours of electives: See *Teacher Education Guidebook* for list of applicable electives

ELEMENTARY SOCIAL STUDIES GROUP MAJOR

Students must take two specified courses from each of the following four disciplines: Economics, Geography, History, and Political Science. (Specific course choices are listed in the *Teacher Education Program Guidebook*). In addition, students must complete a sequence of courses from one of these disciplines chosen in consultation with a social studies education advisor. Advisors: D. Miller, D. Howard, and R. Schoone-Jongen History Department.

ELEMENTARY SOCIAL STUDIES GROUP MINOR

Economics 221
Economics 222
Geography 110
One course from Geography 210, 230, 310, or 320
History 151 or 152
History 229
Political Science 101
Political Science 202

ELEMENTARY AND SECONDARY INTEGRATED SCIENCE STUDIES

Students in the Elementary or Secondary Education Program wishing to major or minor in science should consult the Science Education section of the catalog.

GROUP MAJORS IN GEOLOGY AND GEOGRAPHY

A group major meets the needs of some students, particularly those in professional programs. Such group majors require twelve courses, ten of which must be from two departments with no fewer than four from either, with the remaining two courses cho-

sen from a third department. The chairs of the three departments involved must approve such programs.

MAJORS IN GEOLOGY AND GEOGRAPHY

Students must have completed at least two courses in geology or geography with a minimum average grade of C (2.0) before they may be formally admitted to the major program. The core requirement in the physical sciences may be met by Geography/Geology 120, Geography/IDIS 191, 251, or Geology 151. The core requirement in the natural world category may be met by Geology 151-152.

COURSES

Geography

110 **World Regional Geography** (4). F and S. An analysis of the earth's principal culture regions from a geographic perspective: Africa, Europe, Russia, North Africa and Southeast Asia, East Asia, South Asia and Southeast Asia, Australia and New Zealand, Oceania, Carribean, and Latin America. These areas will be examined in the light of several foundational geographic themes: the locational organization of physical and cultural features; society-land relationships; cultural landscapes; and patterns of spatial interaction among and within regions.

120 **Earth Systems** (4). F. This course includes an introductory study of physical systems and historical processes that shape the surface of the earth. Topics include: 1) The physical nature of the earth's surface based on composition of earth materials and the forces that create landforms, 2) weather and climatic systems and their effect on the global distribution of soils and ecological communities, and 3) the oceans. Understanding of earth systems is applied to concepts of stewardship, resource use, and energy consumption. Laboratory. Also listed as Geology 120. Not open to students who have completed Geology 151 or Geology W11.

191 **Introductory Meteorology** (4). S. This course is a study of the atmosphere and the complex processes that control weather and climate. Special attention is given to: The different forms of energy that are operative in the atmosphere and how these control temperature; the various optical phenomena that are observed in the atmosphere; the hydrologic cycle and the mechanisms of cloud formation and precipitation; air pressure and the winds that result from its differences at the surface and aloft; and the formation of air masses and their movement as frontal systems. Human interactions with atmospheric processes will be examined, including the topics of air pollution, hurricanes, tornadoes, ozone depletion, global warming, acid rain, and photochemical smog. Laboratory. Also listed as Interdisciplinary 191. Prerequisite: High school chemistry or equivalent.

210 **Human Modifications of the Global Environment** (3). F. As population and affluence have increased and technology's role has grown, human activities have transformed natural environments around the globe. This course surveys and examines how a wide variety of human enterprises such as agriculture, industry, recreation, and urbanization have had and continue to have far-reaching environmental consequences everywhere on earth. These impacts are assessed by standards such as ecological well being and sustainability, human habitability, and quality of life. Not open to first-year students. Also listed as Environmental Studies 210.

221 **Cartography** (2). F and S. Map design and interpretation with an emphasis upon computer cartographic methods. Course includes portrayal of spatial data and the use of remotely sensed data for cartographic purposes. Lab exercises will focus on practical applications of cartographic principles. Note: *Geography 221 and 222 are taught as two six-week segments in the same semester.

222 **Geographic Information Systems** (2). F and S. Focus on geographic information systems (GIS), a computer method that seeks relationships among map systems and spatial databases. Lab work will develop GIS fluency using the latest version of ArcView software and include experiences merging data from multiple sources and formats. Students will complete GIS projects that are tailored to their disciplinary interests. Note: *Geography 221 and 222 are taught in sequence as two six-week segments in the same semester. Prerequisite: Geography 221 or permission of the instructor based on previous training or experience commensurate with Geography 221.

230 **The Geography of the Global Economy** (3). * F, alternate years. This course traces the geographical and structural evolution of the global economic system. Includes analysis of human interaction with Earth's resources, the impact of distance and relative location on various economic activities, exchange and interaction patterns among places, and theories of uneven development. Prerequisite: Geography 110 or an economics course.

240 **The Geography of Latin America** (3). * S, alternate years. A survey of the geography of Latin America with an emphasis on the region's physical, cultural, and economic diversity and with a particular focus on issues of development and poverty. Emphasis is put on historic migrations, physical resources, and relative location in the understanding of the formation of regional patterns. Not offered 2007-2008.

241 **The Geography of the United States and Canada** (3). * F. This course provides an overview of the geographic forces that shaped this region of North America. These forces include natural processes and the distribution of resources, structures of the market economy, relative location of resources and markets, and the history of migration. These processes are used as a framework for the analysis of the regional economic and cultural patterns of North America with an emphasis on worldview as a formative agent in the creation of this regionalization.

242 **The Geography of Africa** (3). F. A survey of the geography of Africa with a focus on the region's physical, cultural, and economic diversity. Featured emphases include the historical experience of colonialism, challenges of environmental degradation, spatial patterns of forced and voluntary migration, intensification of poverty under structural adjustment programs, and the quest for successful development practices.

251 **Oceanography** (4). * F. This survey course includes: The history of marine exploration; the nature of the ocean floor, including submarine volcanoes, oceanic crust, sea-floor spreading, and marine sediments; coastal geomorphic processes; the properties of seawater; the nature of tides and currents; ecological marine biogeography, including marine plankton, deep-water biota, coral reef communities and estuarine and intertidal marine communities; and stewardship of marine resources. Laboratory; field trips. Also listed as Geology 251. Prerequisites: High school chemistry and sophomore standing.

295 **Special Topics in Geography** (2-3). Prerequisite: sophomore standing.

310 **Urban Geography** (4). * S, alternate years. A study of the spatial organization of cities and systems of cities. Both the internal structure and external relations of cities receive attention. The historic and present-day spatial organization of infrastructure, economic life, social activities, ethnicity, institutions, and politics are examined. Prerequisite: Geography 110 or one social science course.

311 **Geomorphology** (4). * F. The investigation of landforms and the processes which cause them. This course studies the erosional and depositional features resulting from rivers, glaciers, and wind, as well as coastal, gravitational, and weathering processes. Landforms are described and classified from field observations, topographic maps, and aerial photographs. Explanations of the landforms are offered through quantitative modeling of the processes. Laboratory, field trips. Also listed as Geology 311. Prerequisite: Geology 151 or Geology/Geography 120.

320 **Introduction to Cultural Geography** (3). * F, alternate years. An examination of the interactions between culture and nature in pre-agricultural, agricultural, and urban-industrial societies. The course explores the origins, character, content, organization, perceptions, and meanings of cultural landscapes, past and present, large and small. Prerequisite: Geography 110 or permission of the instructor. Not offered 2007-2008.

322 **Coastal Geomorphology** (4) *S, alternate years. This course examines the nature and development of coastal landforms and the processes responsible for change in the coastal zone. Topics include waves, currents, tides, wind, changing sea levels, and the coastal environment of beaches, dunes, estuaries, and rocky coasts. Coastal land use and hazards, shoreline protection, and coastal stewardship will be discussed. Great Lakes

coasts are emphasized. Laboratory and field trips. Prerequisite: Geography/Geology 311. Not offered 2007-2008.

351 **Introduction to Urban and Regional Planning** (3). * F, alternate years. A survey of the practice of urban and regional planning including its theory, history, techniques, issues, and careers. Land use planning and zoning, housing and community development, environmental planning, recreation planning, health care systems planning, transportation planning, historic preservation and urban design, and other subfields are examined within neighborhood, downtown, suburban, regional, and Third World contexts. Prerequisites: Two 200-300 level social science and/or geography courses or department approval. Not offered 2007-2008.

380 **Seminar in the History and Philosophy of Geography** (3). S, alternate years. This course includes a study of significant episodes and crucial issues in the history and philosophy of geography with an emphasis on present-day human geography. The philosophical underpinnings of geography's domains and paradigms are critically examined. This seminar requires geography majors to reflect on integrating their geographical knowledge and fitting this into a Reformed worldview. Prerequisite: Junior or senior standing in the geography program. Not offered 2007-2008.

385 **Internship in Geography** (3). F, S, or SS. This course is an internship involving professional application of the concepts and principles learned as part of the geography program. A student is placed in a government agency, a private firm, or a not-for-profit organization, which builds on previous instruction in the program in an area of applied geography, such as urban and regional planning, mapping, and geographic information systems. Students are assigned a specific project and work under the direct supervision of an employee of the outside agency or firm as well as under the supervision of the instructor. Prerequisites: Senior standing in the geography major or permission of the geography faculty.

390 **Independent Study**. * F, I, and S. Prerequisite: Permission of the department.

395 **Research in Geography** (2). F, I, and S. Field or library research on an approved geographical problem and presentation of the results of this research in a seminar. Open to qualified students by permission of the department.

Geology

120 **Earth Systems** (4). F. This course includes an introductory study of physical systems and historical processes that shape the surface of Earth. Topics include: 1) The physical nature of Earth's surface based on composition of Earth materials and the forces that create landforms, 2) weather and climatic systems and their effect on the global distribution of soils and ecological communities, and 3) the oceans. Understanding of Earth systems is applied to concepts of stewardship, resource use, and energy consumption. Laboratory. Also listed as Geography 120. Not open to students who have completed Geology 151 or Geology W11.

151 **Introduction to Geology** (4). F and S. This course is a study of the materials and processes of Earth leading to a responsible Christian appreciation for and stewardship of Earth. Topics include minerals and rocks, Earth's interior and surface structure; surface processes producing landforms; geological time and principles for interpreting Earth history; mineral resources and fossil fuels; and geological hazards such as earthquakes, volcanoes, floods, landslides, and groundwater pollution. Laboratory. Not open to students who have completed Geology/Geography 120 or Geology W11.

152 **Historical Geology** (4). S. The first portion of this course traces the development of the study of Earth through the past few centuries, as geology became a true scientific discipline and as its practitioners became convinced of Earth's antiquity. Attention is given to relating views of Earth's history to the Genesis record. During the remainder of the course, evidence for the particulars of earth history, with emphasis on North America, is outlined. Topics include the origin of the Earth and its moon; the origin of continents and ocean basins; rock deformation caused by plate motion and the creation of mountain ranges through history; and sedimentary deposits of intracontinental seas. The laboratory

builds on rock classification and map techniques introduced in Geology 151. Prerequisite: Geology 151 or equivalent.

212 **Structural Geology** (4). * S, alternate years. An analysis of common geological structures such as folds, faults, joints, and foliations; inquiry into the means by which these structures are formed from stresses within the Earth; methods of constructing and interpreting geological maps and cross sections; and introduction to field-mapping techniques. Laboratory, field trip. Prerequisite: Geology 152 or concurrently.

215 **Mineralogy and Optical Mineralogy** (4). F, alternate years. A study of the principles of crystal structure in minerals with emphasis on the silicates. Modes of geologic occurrence of minerals are reviewed. Crystal morphology and mineral identification, including use of petrographic microscope, are emphasized in laboratory. Laboratory. Prerequisites: Geology 151 and Chemistry 103 or concurrently. Not offered 2007-2008.

251 **Oceanography** (4). * F, alternate years. This survey course includes: The history of marine exploration; the nature of the ocean floor, including submarine volcanoes, oceanic crust, sea-floor spreading, and marine sediments; coastal geomorphic processes; the properties of seawater; the nature of tides and currents; ecological marine biogeography, including marine plankton, deep-water biota, coral reef communities, and estuarine and intertidal marine communities; and stewardship of marine resources. Laboratory; field trips. Also listed as Geography 251. Prerequisite: High school chemistry and sophomore standing.

304 **Geochemistry** (3). * F, alternate years. This course studies the Earth's major geochemical systems with particular attention to water and rock systems. Topics include fresh and marine water, including groundwater, mineral crystallization and weathering, organic geochemistry, and the application of geochemistry to forensic pollution studies. Stable and radiogenic isotope systematics are reviewed and applied to geological problems and issues. Prerequisites: Geology 215 or 151 plus Chemistry 104 or permission of the instructor.

311 **Geomorphology** (4). * F. The investigation of landforms and the processes which cause them. This course studies the erosional and depositional features resulting from rivers, glaciers, and wind, as well as coastal, gravitational, and weathering processes. Landforms are described and classified from field observations, topographic maps, and aerial photographs. Explanations of the landforms are offered through quantitative modeling of the processes. Laboratory, field trips. Also listed as Geography 311. Prerequisites: Geography/Geology 120 or Geology 151.

312 **Environmental Geology** (4). * S, alternate years. Use of geologic methods and interpretations in understanding and resolving problems related to the environment. Emphasis is on hydrology (groundwater and surface water), coastal zone problems, soil erosion, landslides, and restoration of disturbed geologic regions. Laboratory. Prerequisite: Geology 311.

313 **Paleontology** (4). * S, alternate years. A study of organisms that once lived on Earth. Includes an examination of the processes of preservation and methods of discovering the structure, habitat, and relationships of those organisms, and a review of their distribution and life history. A broad spectrum of organisms is studied with emphasis on invertebrate animals. Laboratory, field trip. Also listed as Biology 313. Prerequisite: Geology 152 or Biology 242 and 243.

316 **Igneous and Metamorphic Petrology** (4). S, alternate years. An investigation of the generation, ascent, and emplacement of magma and the mineralogy, chemistry, field associations, tectonic setting, and genesis of igneous rocks, as well as investigation of the tectonic setting, field associations, classification, structure and texture, and genesis of metamorphic rocks. Laboratory stresses rock identification and genetic interpretation, particularly with the use of the petrographic microscope. Laboratory. Prerequisite: Geology 215. Not offered 2007-2008.

317 **Sedimentation and Stratigraphy** (4) F, alternate years. This includes the study of the classification and origins of sedimentary rocks with emphasis on the physical, chemical, and biological processes responsible for the origin, deposition, and diagenesis of sed-

iments, with particular attention to modern depositional analogs; an investigation of the use of thin-section petrography in the interpretation of the genesis of sedimentary rocks; and graphical techniques for depicting the geometries of layered sedimentary rocks in outcrop and subsurface. Laboratory; field trip. Prerequisite: Geology 215 or concurrently. Not offered 2007-2008.

322 **Coastal Geomorphology** (4) *S, alternate years. This course examines the nature and development of coastal landforms and the processes responsible for change in the coastal zone. Topics include waves, currents, tides, wind, changing sea levels, and the coastal environments of beaches, dunes, estuaries, and rocky coasts. Coastal land use and hazards, shoreline protection, and coastal stewardship will be discussed. Great Lakes coasts are emphasized. Laboratory and field trips. Prerequisite: Geography/Geology 311. Not offered 2007-2008.

359 **Seminar in Secondary Geology-Earth Science** (3). S. A course in perspectives on, principles of, and practices in the teaching of Geology-Earth Science on the secondary level. This course should be taken concurrently with Education 346. The seminar provides a forum for the discussion of concerns that develop during directed teaching. This course is part of the professional educational program and may not be included in the major or minor in Geology-Earth Science.

387 **Geology as Vocation** (1) F. This course examines geology as vocation as it applies to course participants. Topics cover how to discern God's call, how to identify and pursue future opportunities, and the practices and issues that geologists encounter as they enter their discipline. Lectures, class discussions, short reflection papers and guest participants. Prerequisite: Junior or senior standing in a major concentration in geology or permission of the instructor.

390 **Independent Study**. * F, I, and S. Prerequisite: Permission of the department.

395-396 **Research in Geology** (2-4). * F, I, and S. Field and/or laboratory research on an approved geological problem and presentation of the results of the research in seminar. Open to qualified students by permission of the geology faculty.

Graduate Courses

520 **Advanced Earth Science**. This course includes consideration of the main ideas which serve as unifying principles in Earth science. Recent discoveries and current research projects are reviewed. The course highlights ideas resulting from studies in Earth sciences which have increased our understanding of the relationship between Earth and its human inhabitants. Topics include applications of geology to environmental problems, contribution of space research to understanding Earth, and the relationship between the results of geological study and teachings of the Bible. Special attention is given to topics and concepts, which can be incorporated into elementary, middle, and secondary school materials and activities. Prerequisite: Geology 120 or permission of the department.

590 **Independent Study**. * F, I, and S.

May Interim Courses

W50 Big Sky Geology: Montana Field Experience (4) (field version of Geol-151). This course in geology is based in southwest Montana. Southwest Montana offers superb field exposures and is within driving distance of outstanding geological localities including Yellowstone National Park and Craters of the Moon National Monument. This course fulfills the Physical Science core requirement, and emphasizes outdoor, field-based investigation and learning. Students will be introduced to the breadth of geological study leading to responsible Christian appreciation and stewardship of the Earth, including rocks and minerals, landforms and surficial processes, geological hazards, and natural resources. Field activities are an important part of each day and the field experience will complement morning lecture and lab activities. As a graded course, exams will cover lecture and text, and students will be required to complete lab assignments, construct a written field log, and choose a special field project. Not open to students who have completed Geology/Geography 120, Geology 151 or Geology W11.

German

Associate Professors H. De Vries (chair), †D. Smith
Assistant Professors P. Dykstra-Pruim, C. Roberts
Adjunct M. Buteyn

Programs for students wishing to major in German are worked out for them individually by departmental advisors who should be consulted early. Calvin-sponsored programs are available in Germany and Austria for the interim, a semester, the academic year, or the summer. Students interested in such programs should work out the details with the department chair, the director of Off-Campus Programs, and the registrar.

The Cross-Cultural Engagement core requirement may be met by German W80 (German Interim Abroad). The core literary requirement may be met by German 217 or 218.

CREDIT EXAMS

Credit exams may be taken for courses German 201 or 202, or both, only by students who enter the program at a level of German 215 or higher. Credit exams normally are offered during academic advising days of the spring semester.

GERMAN MAJOR
(30-32 semester hours)

German 215
German 216
German 315
Two 300-level literature courses
Five electives numbered 123 or higher (except 261), one of which may be the German Interim Abroad.

GERMAN MINOR
(18-20 semester hours)

German 215
Five courses from German 123 or higher (except 261), one of which may be the German Interim Abroad.

To be eligible for the major or minor program, a student must have completed at least two courses in German with a minimum grade of "C" (2.0) and must have completed German 202 or the equivalent.

GERMAN ELEMENTARY AND SECONDARY EDUCATION MAJOR
(30 semester hours)

German 215
German 216
Two 300-level literature courses
German 315
Four approved electives (except German 261)
IDIS 356 (elementary) or IDIS 357 (secondary)

GERMAN ELEMENTARY AND SECONDARY EDUCATION MINOR (21 SEMESTER HOURS)

German 215
German 216
German 315
IDIS 356 (elementary) or IDIS 357 (secondary)
Three approved electives (except German 261)

Students in teacher education must pass the test administered by the State of Michigan. They must also pass a departmental German proficiency examination prior to the teaching internship. This examination is offered twice each school year, during October and March; for details see the chairperson. As of 2007-2008, German Education majors are required to take an external oral proficiency interview in order to be certified. A ranking of Advanced - Low on the ACTFL Proficiency Scale constitutes the minimum required level of proficiency. Additional criteria for approval for the teacher education program are found in the *Teacher Education Program Guidebook*, available in the Education Department.

COURSES

101/121 Elementary German I (4). F. An introductory course in the German language and culture, that includes an investigation of cultures of German-speaking countries and training in intercultural skills. The course serves as the first course in two different sequences. It provides an introduction to German for stu-

dents with no prior knowledge of the language; these students will normally progress to German 102, followed by 201 and 202. The course also provides systematic review and consolidation for students who have taken high school German but who, on the basis of a placement test, are not prepared for German 201. These students will normally continue with the sequence of 122-123.

102 **Elementary German II** (4). S. Continuation of German 101.

122/123 **Introductory and Intermediate German** (3,4). I, and S. Continuation of German 121. Further development of skills in speaking, listening, reading and writing German. Includes investigation of cultural topics, German history, and a study of a variety of texts. Prerequisite: German 121.

201 **Intermediate German**(4). F. Further development of skills in speaking, listening, reading, and writing German. Includes systematic grammar review, cultural topics and study of a variety of short literary texts. Prerequisite: German 102 or placement test .

202 **Intermediate German** (4). S. Continuation of German 201. Prerequisite: German 201.

215 **Advanced Communication I** (3). F. This course is designed to develop advanced speaking and oral comprehension skills and prepares students culturally for a visit to or a stay in a German-speaking country. Prerequisite: German 123 or 202.

216 **Advanced Communication II** (3). S. Extensive practice in writing, oral reporting and discussion of cultural and political issues in German-speaking countries. Includes intensive study of selected topics in German grammar. Prerequisite: German 215 or permission of instructor.

315 **Advanced Language and Culture** (3). S. Further development of advanced language skills through intensive work with written, aural and visual media dealing with contemporary issues in the German speaking world. Review of selected grammar topics. Prerequisite: German 216 or permission of the instructor.

Literature

217 **Readings in Major German Authors I** (3). S. This course is a basic introduction to German literature and covers selected readings in major German authors from 1750 to 1850. Prerequisite: German 123 or 202.

218 **Readings in Major German Authors II** (3). F. Study of German texts by major authors from the late 19th to the mid 20th century such as Storm, Hesse, Kafka and Dürrenmatt. The relationship -- both harmonious and destructive -- of the individual to the natural and social environment is a thematic thread followed throughout the course readings. Prerequisite: German 123 or 202 or permission of the instructor.

250 **German Civilization** (3). A study of the German spirit as it finds expression particularly in social customs and institutions, religious and political life, and the fine arts. Lectures and discussions. Prerequisite: German 123 or 202. Not offered 2007-2008.

301 **Classicism** (3). * A study of the origins, nature, and literary manifestations of the classical ideal in eighteenth-century Germany. Readings from Lessing, Goethe, and Schiller. Prerequisite: German 217, 218, or permission of the instructor. Not offered 2007-2008.

303 **Romanticism** (3). * S, odd years. A survey of the early 19th-century German literature of Romanticism. Works by authors such as Wackenroder, Novalis, Tieck, Hoffmann, Brentano, and Eichendorff are studied. Substantial attention is given also to Grimm's fairy tales and to poems of the Romantic era. Texts are discussed in relationship to the era's philosophical spirit and to the political and social contexts of the early 1800s. Prerequisite: German 217, 218, or permission of the instructor.

304 **Nineteenth Century Literature** (3). * S, even years. Readings in German, Swiss, and Austrian prose and poetry of the Nineteenth century. A survey of the intellectual and cultural changes in this era and an analysis of literary works characteristic of the period. Prerequisite: German 217, 218, or permission of the instructor.

307 **Twentieth-Century German Literature I** (3). * F, odd years. Selected readings in Ger-

man literature from 1890 to 1945, with special emphasis on the works of Th. Mann, Kafka, Hesse, and Brecht. Prerequisite: German 217, 218, or permission of the instructor.

395 **Senior Seminar in Contemporary German Literature** (3) S, even years. Works by major German authors such as Böll, Becker, Bachmann, Lange, and Enzensberger are studied in relationship to major developments in post-war German culture and society. Themes discussed include the impact of technology on culture, materialism, existentialism, feminist and environmental concerns, the division of Germany and coming to terms with the Nazi past, all of which raise basic questions relevant to Christian identity and worldview. Attention is given to other cultural expressions, such as film, as these have interacted with literature, and also to the wider question of what it means to develop a Christian practice of reading texts and cultures. This course carries integrative studies credit. Prerequisite: German 217 or 218 or permission of the instructor.

IDIS 356 **Foreign Language Education in the Elementary School** (3). *F and I. Theory and practice of foreign language teaching in the elementary school. Study of language skill development, second language acquisition, methodologies, curricula, and programs. Off-campus school visits for observation and aiding experience. Should be taken in the junior or senior year, prior to student teaching. Required for elementary certification in foreign language, K-12 endorsement, and ESL elementary endorsement. Prerequisite: completion of or concurrent registration in Education 302/303.

IDIS 357 **Introduction to Foreign Language Pedagogy** (3). F. An introduction to the major principles and practices of foreign language pedagogy, offering a study of various methodologies and the major controversies associated with them. The course explores how a Christian approach to education affects foreign language pedagogy and how foreign language pedagogy interacts with the language learner's personal growth. It also introduces the prospective educator to the teaching of the basic skills, to issues in evaluation and assessment, and the use of technologies in the foreign language classroom. This course should be taken in the junior or senior year, prior to student teaching. Required for secondary certification in foreign language and for the ESL secondary endorsement. Prerequisite: completion of or concurrent registration in Education 302/303.

IDIS 359 **Seminar in Secondary Foreign Language Pedagogy** (3). S. A seminar reinforcing the major principles and practices of foreign language pedagogy on the secondary level for students during their semester of directed teaching. The course will provide an opportunity for collaborative work on putting theoretical and pedagogical matters of immediate concern into a practical framework. This course is required concurrently with Education 346. This course does not count as part of the major or minor program. Prerequisites: Education 302/303 and successful completion of the department proficiency exam.

390 **Independent Study**. F, I, and S. Prerequisite: Approval of the department chair.

395 **Seminar** (3).

Civilization

261 **Introduction to Modern German Culture** (3). A survey of the German cultural tradition of this century as it finds expression in the various arts, with particular emphasis on films and representative works of literature in translation. No knowledge of German is required. Not offered 2007-2008.

Greek

See the Department of Classical Languages for a description of courses and programs of concentration in Greek.

Health, Physical Education, Recreation, Dance, and Sport

Professors D. Bakker, D. DeGraaf (chair), K. Gall, N. Meyer, G. Van Andel
Associate Professors J. Bergsma, J. Kim, J. Timmer, Jr., K. Vande Streek, J. Walton, A. Warners
Assistant Professors, J. Ross, J. Sparks, E. Van't Hof
Instructior M. Christner
Adjunct N. Van Noord

The department serves a number of functions. It provides a required, but flexible, sequence of physical education courses for all students; it offers professional training for physical education teachers, health educators, sport administrators, coaches, exercise scientists, and recreation leaders; and it directs an extensive program of intramural, recreational, and inter-collegiate sports for men and women.

PHYSICAL EDUCATION MAJOR

All students in Physical Education are Physical Education majors. Students choose a sub-disciplinary emphasis based on a particular area of vocational interest. The four emphases, as noted on the student's Academic Evaluation Report (AER), are denoted as follows:

BA.PE General Physical Education
BA.PE + EXSC Exercise Science
BA.PE + SPMG Sport Management
BA.PE + EL (K–8) Teacher Education
BA.PE + SEC (7–12) Teacher Education
BA.PE + K12 (K–12) Teacher Education

The Physical Education Nucleus

HPERDS is organized and administered in a unique way that unites all its majors through a centralized foundation of common Physical Education coursework. The focal point from which this curricular nucleus is derived is the study of physical activity. All HPERDS physical education majors are well-grounded in the reasons and ways people engage in physical activity, culminating in demonstrated competence in helping others discover and celebrate movement and play. All Physical Education majors, independent of emphasis, take the following courses:

Physical Education 201
Physical Education 212
Physical Education 220
Physical Education 301
Physical Education 325
Physical Education 332

PHYSICAL EDUCATION GENERAL STUDIES EMPHASIS

General physical education students take the physical education nucleus plus the following courses:

Physical Education 213
Physical Education 215
Physical Education 315
Two 200+ HPERDS electives
Biology 115

EXERCISE SCIENCE EMPHASIS

Physical education nucleus courses plus the Exercise Science Cognate:

Biology 141
Biology 205
Biology 206
Chemistry 115
Health 254
Physical Education 213
Physical Education 328
Physics 223
Mathematics 143
Two electives from Physical Education, Health or science courses at the 200 level or above, which must be approved by an exercise science emphasis advisor.

All exercise science students are encouraged to consider an internship. In addition, all students take a practice American College of Sports Medicine Health-Fitness Instructor certification exam in the spring of senior year and must be CPR certified prior to graduation.

Exercise Science students declaring a pre-professional track (pre-physical therapy, pre-occupational therapy, pre-medicine) are also asked to consult with the pre-professional advisor in Biology. Pre-professional students must complete additional chemistry, physics, psychology, sociology, and English coursework.

SPORT MANAGEMENT EMPHASIS

Physical education nucleus courses plus the Sport Management Program:

Physical Education 218
Physical Education 315
Physical Education 320
Recreation 203
Physical Education/Recreation 346
Select one course from the following:
Recreation 304 or 308

Required Cognate (Business Minor)
Business 160
Business 203
Economics 221
Economics 222
Business 380
One Business elective from 300 level or above

K-12 PHYSICAL EDUCATION/ TEACHER EDUCATION EMPHASIS

Physical education nucleus courses plus the Teacher Education Program.

Physical Education 156 *
Physical Education 204
Physical Education 213
Physical Education 215
Physical Education 280
Physical Education 281
Physical Education 305 *
Physical Education 306 *
Physical Education 359
Physical Education 380

Required Cognate
Biology 115

* Physical Education 156, 305 and 306 are required for K-12 endorsement, but Physical Education 156 and 305 are dropped as a requirement for secondary only certification and Physical Education 306 and 359 are dropped as a requirement for elementary only certification.

PHYSICAL EDUCATION MINOR

Physical Education 201
Physical Education 325
Physical Education 220
A minimum of 7-10 additional hours in at least three (3) of the following courses: Physical Education 212, 213, 215, 230-239, 301, 315, 332, 380, or one approved Physical Education interim

SECONDARY EDUCATION PHYSICAL EDUCATION MINOR

Physical Education 204
Physical Education 212
Physical Education 220
Physical Education 280
Physical Education 281
Physical Education 301
Physical Education 306
Physical Education 325
Physical Education 332
Physical Education 380

ELEMENTARY EDUCATION PHYSICAL EDUCATION MINOR

Physical Education 156
Physical Education 204
Physical Education 212
Physical Education 220
Physical Education 280
Physical Education 281
Physical Education 301
Physical Education 305
Physical Education 325
Physical Education 332
Physical Education 380

HEALTH EDUCATION MINOR: GENERAL/ELEMENTARY/SECONDARY

Health 202
Health 203
Health 254
Health 265
Health 266
Physical Education 301
Health 307
Health 308/Physical Education 222 (elementary education minors)

Please note many courses in the health education minor are offered alternate years, so this minor takes careful planning. This minor is available to education and non-education students.

The education programs require the approval of the Education Department and the approval of one of the department advisors, B. Bolt or K. Gall. D. Bakker serves as the Advisor for Health Education. Prior to the teaching internship, students must have the approval of the department. Criteria for approval are found in the Teacher Education Program Guidebook, available in the Education Department.

RECREATION (B.S.R.)

The professional program in Recreation includes three emphasis areas: Therapeutic recreation (recreation therapy), youth leadership/development, and community/commercial recreation. Recreation majors complete a modified liberal arts core, seven major courses, four cognate courses, and the courses from the selected emphasis. Students are advised to consult with G. Van Andel (Therapeutic Recreation emphasis) or D. DeGraaf (Youth Leadership and Community Recreation emphasis) of the HPERDS Department for more information about this program and possible career opportunities in the broad field of recreation and youth services.

RECREATION MAJOR

Physical Education/Recreation 201
Recreation 203
Recreation 304
Recreation 305
Recreation 310
Recreation 346
Recreation 380

Cognates
Psych 201 or 207 (depending on emphasis)
Psychology 310
Math 143 or Psych/Soc 255

EMPHASIS OPTIONS

THERAPEUTIC RECREATION EMPHASIS

Psych 212
Soc. Wk 370 or Psych W-81
Recreation 205
Recreation 314
Recreation 324
Recreation 345
One (1) elective from the following:
PE 220; Soc 306. 316, 317; Psych 330, 333. 335, or an approved Interim.

YOUTH LEADERSHIP EMPHASIS

Recreation 215
Recreation 308
Recreation 312
PE 220
Two (2) electives from the following:
HE 307, CAS 140, 214, 303, IDIS 374, Political Sc 208, Psych 222, 322, Soc 250, 302, Soc. Wk 370; or an approved Interim

COMMUNITY RECREATION EMPHASIS

Recreation 215
Recreation 308
Recreation 312
PE 220
Two (2) electives from the following:
HE 307, Geography 310, CAS 303; Environmental. St. 210, Political Sc. 110, 202, 208, 209; Soc. 250, 302, Phil. 207; or an approved Interim.

RECREATION MINOR

Recreation 201
Recreation 305
Recreation 310
Three approved courses, one of which may be a recreation interim

DANCE MINOR

Physical Education/Recreation 156
Physical Education 202
Physical Education 212
Physical Education 310
Physical Education 330
Five additional courses from the following:
At least one semester hour in each of <u>three</u> of these five styles (at either level I or II): *Modern, ballet, jazz, tap, or sacred dance* (Physical Education/Recreation 151, 161, 152, 162, 153, 163, 154, 155, 165)
At least one semester hour at level II in <u>one</u> of the five styles listed above (Physical Education/Recreation 161, 162, 163, 165)
At least one elective dance technique course

Please note many courses in the dance minor are offered alternate years, so this minor takes careful planning. Dance minors are asked to consult with E. Van't Hof.

Physical Education core requirements in Skill Enhancement and Leisure/Lifetime are satisfied through the dance minor. Students would need an additional Personal Fitness/Fitness core course to complete Physical Education core.

COACHING MINOR

PE 212
PE 220
PE 255
PE 315
PE 325
PE 280
PE 281
PE 380
Two electives from PE 230-239 or an approved interim course.

Physical Education coaching minors are asked to consult with K. Vande Streek.

CORE REQUIREMENTS

The liberal arts core requirement in physical education is met by the following courses: one course from those numbered 101–129 or 222 (Personal Fitness Courses); One course from 130-159 or 221 (Leisure and Lifetime); and one course from 160-189 (Skill Enhancement). Students may take two semester hours in addition to the core requirements, which may be applied to the minimum graduation requirements. Student athletes who participate in at least one semester of intercollegiate athletics are exempt from the Skill Enhancement core requirement. Also, student athletes should only enroll in physical education classes that are not affiliated with their sport. Students with special needs should see Professor K. VandeStreek to arrange for an adaptive physical education course (PER 190).

COURSES

100-129 **Personal Fitness Courses** (1). F and S. A course in this area is designed to provide students with the basic knowledge and activity requirements to maintain active lives. This course is to be used as a gateway course before students complete their two requirements in the Skill Enhancement core and Leisure and Lifetime core categories. (Students take one course from this series, then one course each from the Skill Enhancement series and from the Leisure and Lifetime series). The emphasis in each course is on fitness development and maintenance. Students are expected to train a minimum of three times per week - two times in class and at least once outside of class. All courses involve participation in conditioning activities, lectures, discussions, papers, and tests. Elementary education students take Physical Education 222, Elementary School Health Education Program and Activities, for their health fitness course. Conceptual topics related to wellness included in all Personal Fitness courses are: 1) Principles for the development of an active lifestyle, 2) issues in nutrition, and 3) body Image.

101 Jogging
102 Walking
103 Cycling
105 Aerobic Dance
106 Aerobic Cross-Training
107 Weight Training
108 Lap Swimming
109 In-Line Skating
222 Elementary Health Education Activities (2)

130-159 **Leisure and Lifetime Courses** (1). F, I, and S. A course in this area is designed to provide students with the basic knowledge to acquire and develop selected motor skills for a lifetime of leisure. This course is an extension of the gateway Personal Fitness course previously taken by the student. Each course emphasizes the following: 1) personal development in a specific activity, and 2) acquisition of basic skills needed for a lifetime of healthy leisure activity. Students are expected to participate in class activities, lectures, discussions, papers, and tests. All courses include the following conceptual topics: 1) the place of leisure in the Christian life, and 2) developing skills and the gifts God gives to us. Prerequisite: One course from the Personal Fitness core section number Physical Education 100-129. Elementary education majors may take Physical Education 222 as a prerequisite.

131 Badminton I
132 Golf I
133 Tennis I
134 Racquetball I
135 Volleyball I
137 Bowling
138 Outdoor Activities
139 New Games
140 Swimming I
141 Slow-Pitch Softball
142 Rock Climbing I
143 Canoeing I
144 Frisbee
145 Fly Fishing
151 Tap Dance I
152 Jazz Dance I
153 Modern Dance I
154 Sacred Dance I
155 Ballet Dance I
156 Creative Dance
157 Rhythm in Dance
158 Social Dance

160-189 **Skill Enhancement Courses** (1). F, I, and S. A course in this area is designed to provide students with advanced knowledge and activity requirements to develop and refine selected motor skills. The course is an extension of the gateway Personal Fitness course previously taken by students. The emphasis in each course is on motor skill enhancement in specific activities. Students are expected to participate in the class activity and contribute through lectures, discussions, papers, and tests. Elementary education students take Physical Education 221 for the remainder of their Human Movement Skills core requirement. Conceptual topics included in all courses are: 1) Competition and spectatorship, 2) common elements in skilled human movement, and 3) performance improvement techniques. Prerequisite: one course from the Personal Fitness core section number Physical Education 100-129. Elementary education majors take Physical Education 222 as their prerequisite. Students enrolling in courses labeled "II" must have one of the following prerequisites: Completion of a level 1 course, high school competitive experience, or permission of the instructor.

161 Tap Dance II
162 Jazz Dance II
163 Modern Dance II
165 Ballet Dance II
166 Square/Folk Dance
167 Period Styles of Dance
168 Visual Design in Dance
170 Swim II
171 Karate
172 Self Defense
173 Basketball
175 Volleyball II
176 Ice Skating
177 Downhill Skiing
178 Cross-Country Skiing
179 Rock Climbing II
180 Canoeing II
181 Badminton II
182 Golf II
183 Tennis II
185 Soccer
186 Gymnastics
221 Elementary Physical Education Activities (2)

190 **Adapted Physical Education**. F, I, and S. This course is available to students with special needs who cannot participate in other physical education classes. This course may be repeated to fulfill the PE core requirements. See Professor K. VandeStreek for information.

191-199 **Elective Courses**. F, I, and S. The courses listed in this series are offered to meet the special interests of students. Students may select a course from this group based on interest or academic program. These courses will count toward the total graduation requirement, but will not count as core courses.

191 Lifeguard Training (2 semester hours)
192 Water Safety Instructor (2 semester hours)
193 Sports Officiating (2 semester hours)
198 Scuba Instruction (1 semester hour)
199 Independent Activity (1 semester hour)

201 **Historical and Sociological Foundations of Physical Education, Recreation, and Sport** (3). F and S. A study of physical education, recreation, and sport in the context of their history and development as well as an overview of their role in, and significance to, contemporary society.

202 **Dance in Western History** (3). S. A study of the historical development of western dance from early lineage-based societies In Europe to contemporary forms In European and North American cultures. Emphasis is placed upon the development of dance as a performing art. The course investigates parallel trends in the arts of music, visual art, drama, and dance throughout western history. Satisfies college core in the Arts.

204 **Curricular and Instructional Principles for Teaching Physical Education** (2). S. An overview of curricular concepts, planning principles and management skills necessary for effective teaching and learning in physical education. This course is designed to give prospective teachers insights into the nature of physical education and effective instructional strategies. The course involves discussions, written assignments, research readings, observations, task teaching, and assessment applications. Prerequisite: Physical Education 201.

212 **Anatomical Kinesiology** (3). F. A study of human motion based on structural foundations. Particular attention is given to bone, joint, muscle, connective and nerve structures, and the movement patterns specific to these structures. An analysis of efficient anatomical movement patterns for loco-motor, manipulative, and sport skills are studied in the course. Prerequisite: Biology 115 or 205, or permission of the instructor.

213 **Kinesiology** (3). S. A study of human movement based on the body's anatomical structure and mechanical function. Includes a review of anatomical movement patterns with in-depth kinematic and kinetic analysis of loco-motor, manipulative, and sport skills. Students determine patterns of efficient movement for various sports skills based on physical and mechanical principles of human movement. Prerequisite: PE 212 or permission of the instructor.

215 **Physical Education for Persons with Special Needs** (3). S. Philosophy and basic concepts relating to planning and conducting programs in educational and community settings for individuals with disabilities. Concepts and techniques in program planning, leadership, and adaptations of facilities, activities, equipment in physical education and recreation services for individuals with special needs are reviewed and discussed.

218 **Introduction to Sport Management** (3). F. This survey course will introduce students to the profession of sport management and its relationship to the broader fields of physical education and recreation. The course will include an overview of the major aspects of sport management including sport facility design, sports marketing and fundraising, leadership and personnel management in sport, and sport law. Prerequisite: PE 201.

220 **Motor Learning and Skill Performance** (3). * F. This course explores how humans acquire movement skills. It includes an examination of the various characteristics of the learner, an attempt to develop specific theories of how motor skills are acquired, and a review of teaching strategies that are appropriate for teaching them. The focus is on the learner, the learning process, and methods of instruction and includes an evaluation of growth and the developmental factors influencing learning. The course gives opportunities for practical experience in applying motor learning principles.

221 **Elementary School Activities and Programs** (2). * F and S. The course provides a working knowledge of the fundamentals of physical education planning for elementary school children. It substitutes for one course in the Skill Enhancement (Physical Education 160-189) category of the Health and Fitness core requirement. This course is required of all elementary education students.

222 **Elementary School Health Education Program and Activities** (2). * F and S. This course provides a working knowledge of the fundamentals of health education planning for elementary school students. Particular attention is given to curriculum sequence, resource materials, and learning activities. The course is required of all elementary education students. It can substitute for a Health Fitness (Physical Education 100-129) subcategory of the Health and Fitness core requirement.

230-289 **The Coaching of Sports** (2). Students with an interest in coaching are encouraged to elect courses in this series. Prerequisite: A record of participation in skill performance or completion of the same activity in Physical Education 280 or 281.

231 Basketball. Not offered 2007-2008.
232 Baseball/Softball. Not offered 2007-2008.
233 Track and Field. Not offered 2007-2008.
234 Soccer. Not offered 2007-2008.
235 Volleyball. Not offered 2007-2008.
236 Football. Not offered 2007-2008.
239 Racquet Sports. Not offered 2007-2008.

255 **Basic Athletic Training** (3). S. The course covers physiological principles as they apply to physical conditioning and rehabilitation from injuries. Specific types of conditioning programs and general first aid techniques are studied. Laboratory topics include taping techniques. Prerequisite: Biology 115, PE 212 or equivalent.

280 **Team Sports Assessment** (1). F. This course promotes the development and assessment of skills and knowledge for basketball, floor hockey, soccer, softball/baseball, touch football, track and field, and volleyball.

281 **Individual/Dual Sports Assessment** (1). S. This course promotes the development and assessment of skills and knowledge for badminton, bowling, golf, racquetball, swimming, tennis, tumbling, and weight training.

301 **Measurement and Evaluation in Health, Physical Education, and Recreation** (3). S. A study of evaluation principles and techniques in Health, Physical Education, and Recreation. Topics covered include criteria for selecting tests; descriptive, inferential, and predictive statistical techniques and their application; and tools for assessing health fitness, fundamental skills, sport skills, cognitive skills, and psychological attitudes. The course includes a laboratory section appropriate to the student's major. Lab A, required for all teacher education students, addresses K-12 fitness and skill assessments; Lab B, designed for recreation majors, assists students in applying program and leadership assessments.

305 **Instructional Methods for Elementary Physical Education** (3). F. A study of basic knowledge, skills, and strategies involved in the various educational activities appropriate for elementary school physical education programs. This course focuses on methods and resources for the elementary school curricula. Course includes lectures, discussions, demonstrations, laboratory teachings, student presentations, and resource material compilations. Prerequisites: Physical Education 204 and 220.

306 **Instructional Methods for Secondary Physical Education** (3). S. This course focuses on methods and resource materials appropriate for secondary school physical education programs. Coverage includes team sports, individual and dual sports, fitness building activities, recreational sports activities, and adaptive activities. The course includes lectures, discussions, demonstrations, laboratory teachings, student presentations, and compilation of resource materials. Prerequisites: Physical Education 204 and 220.

310 **Dance in World Culture** (3). F. A study of the relationship of dance to issues of contemporary culture: The role and power of dance to define and reflect community, societal, and religious values and the role of dance within the arts of diverse cultures. An investigation of the dance traditions of many cultures through video, readings, dancing, lecture, discussion, and writing. The course is designed to broaden students' cross-cultural understanding through the art of dance. Satisfies college core in Global and Historical Studies.

315 **Sociology of Sport** (3). S. alternate years. A study of the social and social-psychological dynamics of sports in modern society. Areas receiving special attention are youth sports, interscholastic sports, and professional sports. Emphasis is put on describing and understanding sports participants, observers, and the relationship of sport as an institution to the rest of the social structure. Offered as Sociology 315. Not offered 2007-2008.

320 **Issues and Ethics in Sport Management** (3). S, alternate years. This course addresses the major ethical issues and practices in sport management, including the issues of justice and fairness as they relate to sport marketing, the rights and responsibilities of athlete, coach, and sports administrator, recruiting, resource allocation, and gender and racial equity in sport. Finally, the course will examine the inherent tensions between Christian faith and competition violence and consumerism in both amateur

and professional sport. Prerequisite: PE 218 or permission of instructor.

325 **Physiology of Physical Activity** (3). * S. A study of physical efficiency and physiological principles involved in human exercise. Emphasis will be placed on the responses of the respiratory, cardiovascular, and muscular systems. The course includes the physiology of factors affecting performance such as the environment and the use of tobacco, alcohol, and drugs. The laboratory will help students apply principles and techniques used in assessment of physiological responses to exercise. Prerequisite: Biology 115, 141 or permission of the instructor.

328 **Advanced Practices in Exercise Science** (3). S. An in-depth survey of clinical exercise physiology, exercise pathophysiology, and biomechanics. Emphasis will be placed on resting and exercise electrocardiography, health and fitness appraisal and exercise prescription for specific populations (adults, pregnancy, the elderly) and disease modalities (cardiovascular, pulmonary, neuromuscular, orthopedic, cancer) and advanced biomechanical skills in sport skills and motion analysis. The course incorporates significant lab work, research and analysis. Prerequisite: Junior standing, PE 213, PE 325, or permission of instructor.

330 **Dance Composition and Performance** (3). S. An intensive engagement with the art of choreography. Students explore the concepts of body, space, rhythm, choreographic forms, meaning, and group design. Students create movement studies through improvisation. They develop analysis and evaluation skills through observation, reflection, discussion, and written critiques that prepare them to design and evaluate dance. Students choreograph a final dance and perform it for an audience. They present the process and the application to their lives as Christians through writing and oral presentation. Prerequisite: Physical Education 156 or permission of the instructor. Satisfies college core in the Arts.

332 **Philosophy of Physical Education and Sport** (3). * F. Core capstone course. This course provides students with a survey of philosophical inquiry about sport and physical education. Topics include the nature of play and sport, sport as meaningful experiences, ethics in sport and physical activity, and contemporary issues such as drugs, violence, and gender. Throughout the course, students are confronted with issues from a Christian and Reformed perspective in order to develop their own Christian perspectives. Prerequisites: Biblical Foundations I or Theological Foundations I, Developing a Christian Mind, and Philosophical Foundations.

346 **Field Internship In HPERDS** (3-12). F, S, and SS. An internship or field experience at an approved agency, institution, or service as specified by a student's major and advisor in HPERDS. Where applicable, the seminar focuses on the problems and issues involved in relating theory to professional practice. Prerequisite: Recreation majors must first complete all courses in the recreation program. Other HPERDS majors must have Junior or Senior standing. All students must have a minimum cumulative grade point average of "C" (2.0) and the approval of the department advisor.

359 **Seminar in Principles and Practices of Physical Education Teaching** (3). F and S. The seminar deals with perspectives and methods of teaching physical education. This course should be taken concurrently with Education 346 and will provide a forum for discussion of problems and issues that develop during student teaching. Before taking this course, students must be admitted into Directed Teaching by the Education and HPERDS Departments. Students must complete the physical education major prior to student teaching. Fifth year and transfer students with special needs may seek department authorization to do directed teaching during the first semester.

380 **Individual Competencies** (1). F and S. This course assists students in the development of a portfolio documenting essential skills and experiences needed to prepare them for professional practice in the disciplines of health, physical education, recreation, and dance. Students will document their skill competence in a variety of fitness, movement/dance and sport activities, as well as document proficiency in teaching, administrative, and professional competencies.

390 **Independent Study**. F, I, and S. *Staff*.

391 **Honors Project and Presentation.** F, I, and S.

Recreation

201 **Historical and Sociological Foundations of Recreation and Sport** (3). * F and S. A study of recreation and sport in the context of their history and development as well as an overview of their role in, and significance to, contemporary society.

203 **Leadership in Recreation Programs** (3). F. This course is designed to conduct an in-depth investigation of basic leadership skills related to the delivery of recreation programs and related human services within a Christian worldview. An overview of the leadership theories, concepts, and strategies related to the delivery of human services will be provided. A leadership lab will be used to develop and practice team building skills, group facilitation, and leadership techniques, as well as problem solving skills that will be useful in leading recreation programs.

205 **Therapeutic Recreation with Special Populations** (3). S, alternate years. A general orientation to therapeutic recreation and its role in serving the needs of persons with varying abilities. The etiology, characteristics, and considerations for treatment of persons with a wide range of common diseases and disorders are reviewed and discussed. Practical application and adaptations for serving the recreation and leisure needs of persons with disabilities will be made.

215 **Recreation for Persons with Special Needs** (3). S. Philosophy and basic concepts relating to planning and conducting programs in educational and community settings for individuals with disabilities. Concepts and techniques in program planning, leadership, and adaptations of facilities, activities, equipment in physical education and recreation services for individuals with special needs are reviewed and discussed.

301 **Measurement and Evaluation in Physical Education and Recreation** (3). See Physical Education 301.

304 **Management of Leisure Services** (3). S. A study of the principles, policies, theories, and procedures involved in the organization and administration of leisure services in a variety of settings. Prerequisite: Recreation 201 or 203.

305 **Program Planning and Development** (3). F. A study of the principles and techniques of recreation program development. The application of a program development model, which is used in the organization and planning of recreation programs, is emphasized. Use of selected computer software programs for program administration and promotion will also be developed. Prerequisite: Recreation 201 or 203.

308 **Recreation Program and Facility Management** (3). This course will review the principles and procedures related to the operation and care of private and public recreation resources, areas, and facilities. Topics will include: Establishment of legal authority for operations, developing policies and guidelines, interagency coordination and/or competition, safety and security, and systems evaluation. Prerequisite: Recreation 305 or permission of the instructor.

310 **Theory and Philosophy of Leisure** (3). F. Core capstone course. This seminar course reviews the theories and philosophies of work, play, and leisure and their influence on contemporary culture. Discussions on selected readings help develop an understanding of the political, sociological, psychological, economic, and theological aspects of work, play, and leisure in contemporary society. Emphasis is placed on the development of a Reformed Christian perspective and its implications for personal life and professional practice. Prerequisites: Biblical Foundations I or Theological Foundations I, Developing a Christian Mind, and Philosophical Foundations, and Recreation 304 or 305.

312 **Recreation and Youth Development** (3). S, alternate years. This course will provide an overview of youth serving organizations and their role in the development of youth in the 21st century. Models and strategies for organizing and coordinating effective youth development programs will be presented as well as examining how recreation programs fit into youth development strategies.

314 **Principles of Therapeutic Recreation** (3). F, alternate years. An introduction to the history, philosophy, and concepts of therapeutic recreation. An orientation to the role and function of therapeutic recreation personnel in the treatment of persons with

psychological impairments, physical impairments, developmental impairments, pediatric illnesses, and the problems of aging are presented. Prerequisite: Recreation 205 or permission of the instructor.

324 **Therapeutic Recreation Practice** (3). F, alternate years. An introduction to the basic methods and techniques used in the delivery of therapeutic recreation services. Skills in interpersonal and helping relationships are reviewed and practiced in the context of their application to specific treatment approaches including leisure counseling, play therapy, physical confidence classes, stress-challenge, and physical fitness programs. Prerequisites: Recreation 205 or permission of the instructor. Not offered 2007-2008.

345 **Field Seminar in Therapeutic Recreation** (3). F, S, and SS. Therapeutic recreation students work with field and college supervisors to develop an understanding of the assessment, planning, implementation, and evaluation process in therapeutic recreation settings. Case studies from the agency and from selected publications provide the framework for these learning outcomes that are developed in a weekly seminar. Prerequisites: Currently in an internship or practicum setting.

346 **Field Internship In HPERDS** (3-12). F, S, and SS. An internship or field experience at an approved agency, institution, or service as specified by a student's major and advisor in HPERDS. Where applicable, the seminar focuses on the problems and issues involved in relating theory to professional practice. Prerequisite: Recreation majors must first complete all courses in the recreation program. Other HPERDS majors must have Junior or Senior standing. All students must have a minimum cumulative grade point average of "C" (2.0) and the approval of the department advisor.

380 **Individual Competencies** (1). F and S. This course assists students in the development of a portfolio documenting essential skills and experiences needed to prepare them for professional practice in the disciplines of health, physical education, recreation, and dance. Students will document their skill competence in a variety of fitness, movement/dance and sport activities, as well as document proficiency in teaching, administrative, and professional competencies.

390 **Independent Study.** F, I, and S.

391 **Honors Project and Presentation**. F, I, and S.

Health

115 **Essentials of Anatomy and Physiology**. This is a study of the major theories of biology as applied to humans. The student is introduced to the concepts of cell, genetics, ecology, and evolution through the study of the anatomy, physiology, and development of the human body and health. Students apply these concepts to contemporary issues in human biology, society, and the environment. The laboratory utilizes methods of biological investigation, with an emphasis on human anatomy and physiology. Laboratory. Also, cross-listed Biology 115.

202 **Foundations of Health Education** (3). F, alternate years. This course will provide students with an introduction to basic issues in the development of Health Education. In addition to the history and philosophy of Health Education, topics will include the following: Health promotion, professional competencies, ethics, faith perspectives, and professional organizations. Not offered 2007-2008.

203 **First Aid and Emergency Care** (2). F. This course will enable the student to acquire increased accident and safety awareness, as well as understand the liability aspects of administering first aid. The course will cover the cognitive and practical skills of standard first aid, artificial respiration, and CPR. Opportunity for American Red Cross Certification in adult, child, and infant CPR and first aid will be offered as part of the course.

254 **Nutrition** (3). F and S. This course will provide the student with a basic understanding of human nutrition. Special emphasis will be placed on the role of food and nutrients in sustaining optimal health. Specific topics of study will include nutrition as it relates to athletic performance, the onset of diseases, and obesity. Prerequisite: Biology 115, 206, or equivalent.

265 **Basic Health Concepts: Mental Health, Fitness, Sexuality, Aging, Addictive Behav-**

iors, and Death (3). F, alternate years. This course is designed to provide students with basic health content. Topics to be discussed include a Christian perspective on health and wellness, mental health and stress, physical fitness, sexuality and reproduction, addictive behaviors, and aging and death. Prerequisite: Biology 115 or equivalent.

266 **Basic Health Concepts: Diseases, Substance Abuse, Community, and Environment** (3). S, alternate years. This course is designed to prepare Health Education minors with a wide variety of Health Education content include the following: A reformed perspective on health, risk factors for lifestyle diseases, consumer health, environmental health, lifestyle and communicable diseases, substance abuse, and cancer. Prerequisite: Biology 115 or permission of the instructor. This course may be taken before Health 265. Not offered 2007-2008.

307 **Community Health** (3). S, alternate years. This course focuses on the health needs of individuals in a variety of community settings. Students will learn about current health and non-health conditions affecting U.S. communities. Open to all juniors and seniors interested in health-related professions. Not offered 2007-2008.

308 **Administration and Methods** (3). S, alternate years. This course is designed to provide experiences that will enable the student to develop methodology, management, administrative, and instructional skills required to plan and implement a contemporary Health Education program in school settings. Prerequisite: Health 202 or permission of the instructor.

History

Professors D. Bays, J. Bratt, J. Carpenter, B. de Vries, D. Diephouse, D. Howard, K. Maag, D. Miller, W. Van Vugt (chair)
*Associate Professors, **R. Jelks, W. Katerberg, F. van Liere, K. van Liere*
Assistant Professors B. Berglund, K. DuMez, T. Eschete, Y. Kim, R. Schoone-Jongen, W. TenHarmsel
Instructor E. Washington

Students majoring in history will design programs with their departmental advisor. Such programs will reflect the students' interests within the field of history and in related departments, their anticipated vocational goals, and the demands of the historical discipline. Students are asked to consult with departmental advisors early in their college careers concerning their choice of a foreign language and, if secondary teaching is their goal, concerning the various types of programs leading to certification.

One upper-level interim course may be used as an elective in any of the history majors or minors.

All programs must include at least one course treating a period before 1500 and at least one course treating a period after 1500.

Majors must take at least two courses besides History 394 and 395 on the 300 level. Minors must take at least one course besides History 394 on the 300 level. History 394 must be taken in conjunction with a designated 300-level course in the department.

A minimum grade of "C" (2.0) in History 151 or 152 is required for admission to major programs. The core requirement in history must be met by one course from History 151, 152, or 151/152 Honors. This course should be taken before courses on the 200- or 300-level, which are not recommended for first-year students. Any other regular course in the department will satisfy an additional requirement in the contextual disciplines.

HISTORY MAJOR (GENERAL TRACK)

History 151 or 152
One 200-level American course
One 200-level European course
One 200-level World course
History 294
History 394
History 395
Electives (11 hrs.)

HISTORY MINOR (GENERAL TRACK)

History 151 or 152
Two courses from one and one course from another of the following three clusters:
History 229, 251-257, or 354-358
History 231-246, 271-272, 331-346, or 371-372
History 261-268 or 362-364
Two electives
History 294 or 394

HISTORY MAJOR (EDUCATION TRACK)

History 151 and 152
History 229
One additional American course
One additional European course
One additional World course
History 294
History 375
History 394
History 395
Elective (3-4 hrs.)

Students wanting certification to teach history at the middle and high school levels should select this major. In addition to the courses listed in the major, all secondary education history majors must take three additional cognate courses: 1) Political Science 101; 2) Geography 110; and 3) Economics 151.

HISTORY MINOR (EDUCATION TRACK)

History 151 or 152
History 229
History 255
One from: History 256-257, 354-358
One from: History 231-246, 271-273, 331, 338, 346, 371, 372
One from: History 220, 225, 261-268, 362-364
History 294 or 394
History 375 (secondary only)

ELEMENTARY SOCIAL STUDIES GROUP MAJOR

Students must take two specified courses from each of the following four disciplines: Economics, Geography, History, and Political Science. (Specific course choices are listed in the *Teacher Education Program Guidebook*). In addition, students must complete a sequence of courses from one of these disciplines chosen in consultation with a social studies advisor. Students seek special advice on elementary teacher education should consult D. Miller, D. Howard, or R. Schoone-Jongen.

ELEMENTARY SOCIAL STUDIES GROUP MINOR

Economics 221
Economics 222
Geography 110
One course from Geography 210, 230, 310, or 320
History 151 or 152
History 229
Political Science 101
Political Science 202

Prior to the teaching internship, students must have the approval of the department. Criteria for approval are found in the Teacher Education Program Guidebook, available in the Education Department.

COURSES

Elementary Courses

151 **History of the West and the World I** (4). F and S. This course examines the history of early human societies. The course begins with Paleolithic and Neolithic cultures and their transformation into ancient urban civilizations. It continues with the development of the classical civilizations and the major world religions, and the interaction of impulses from these, down to the European transoceanic voyages around the year 1500 A.D. Secondary themes include evolution of societies around the world, the contrast of urban and sedentary and nomadic strategies for societies, and the development of technology.

151H **World Civilization: The State of the World at the Turn of the First Millennium, A. D. 1000** (4) F. Half of the course will be

comprehensive coverage of world history from early hunting-gathering societies to the medieval mercantile empires before A. D. 1500, followed by a mid-semester examination on reading assignments and lectures. The other half will be a research and writing project leading to each student's contribution of a chapter in the class book entitled A Global Moment: The State of the World at the Turn of the First Millennium, A. D. 1000. This class research project will be a comparative study of historic developments in civilizations around the globe from A. D. 900 to 1100. A key question will be whether similar historical trends occurred independently, through interconnections or in response to globe-wide causes. The writing process includes planning of the book, the research and writing of individual chapters and preparation of the manuscript for in-house publication. This process will culminate in a book-signing party in lieu of a final examination.

The course fulfills core credit. Enrollment is limited to 20 students, and is restricted to those who qualify for honors enrollment.

152 **History of the West and the World II** (4). F and S. The history of modern human societies is studied. The course includes coverage of the scientific revolution and the European Enlightenment tradition; key political, economic, social, and religious developments in the West, including the non-Western world's contribution and reaction to them; and events of global significance through the latter half of the twentieth century, such as the industrial revolution, the world wars, and decolonization.

152H **Honors West and the World** (4). S. An intensive study of world history from 1500 to the present. Most of the course will be devoted to an in-depth comparative analysis of three extended periods of conflict: the Thirty Years' War, the French Revolution and Napoleonic wars, and the era of the two world wars—the "Thirty Years' War of the twentieth century". The course will involve extensive reading and discussion of common sources, research and presentations on selected topics, and individual projects in which students explore significant aspects of these conflicts within a global context. This course meets a core requirement in the History of the West and the World. Enrollment in honors History 152 is limited to 20 students.

Intermediate Courses

All 200-level courses presuppose History 151 or 152 or permission of the instructor.

World Regions

231 **Ancient Near East** (3). F A cultural history of the ancient Near East from prehistory to Alexander, based on evidences from archaeology and cultural anthropology, as well as on ancient texts in translation, biblical accounts, and contemporary historical records. Special consideration is given to geographical setting, artistic and linguistic traditions, and cultural contacts with European civilizations.

232 **Hellenistic and Late Antique Near East** (3).. A study of Near Eastern civilization from the conquests of Alexander to the early Islamic Caliphates, that is, from 350 B.C. to A.D. 900. Particular emphasis is placed on the cultural syncretism of the age, which saw the development of Judaism and the emergence of Christianity and Islam. Scientific, technical, artistic, social, religious, and political developments will all receive attention. Not offered 2006-2007.

233 **Modern Middle East** (3). S. A study of Middle Eastern history from the middle ages to the twentieth century, emphasizing the Ottoman Empire and its modern successor states after World War I, and Iran. Topics include orientalism, colonialism, nationalism, the rise of Israel, and secularism and Islamic revivalism

235 **India and its World** (3) A cultural history of South Asia from the earliest times to the twentieth century. Primary emphasis will be placed on the civilization of Hindustan and the interplay of Hindu and Islamic religious and cultural forces there. Themes include the rise of the major Indian religions; the cultural synthesis of the Mughal Empire; the impact of British rule; and the rise of the modern nations of India, Pakistan, and Bangladesh. Economic, social, political, religious and intellectual themes receive consideration. Not offered 2006-2007.

238 **Latin American History** (4). S. A study of continuity and change in Latin America from Pre-Columbian times to the present. Topics covered include the mingling of races and cultures in the Conquest Era, the long-term influence of colonial institutions, the paradox of economic development and continued poverty, the Cold War struggle between forces of the Left and the Right, and the growth of Protestantism in a traditional Catholic society.

241 **Africa from Antiquity to 1800** (3). A wide-ranging survey of prominent themes encompassing several centuries of African history. The principal aim is to introduce students to some of the main currents of African history and to provide insights into its society and culture. Themes include: Precolonial times, culture, commerce, and state building; the trans-Saharan and Atlantic trade; Islam and the sociopolitical changes it brought; and the Atlantic Slave trade. Not offered 2006-2007.

242 **Modern Africa 1800 to the Present** (3). S. An examination of the historical, political, and economic development of West Africa since 1800. The course examines European imperialism in the late nineteenth and twentieth centuries, the development of African nationalism, resistance and struggle for independence, neo-colonialism, and the origins of contemporary social, economic, and political problems in the new states of the area.

245 **East Asia to 1800** (3). This course is a history of East Asian civilizations from early times until the early modern period. Emphasis is on the history of China and Japan, but the history of Korea is also included. Primary objectives are for students to grasp the essential patterns of Chinese, Japanese, and Korean social structures, political systems, cultural values, and religious and ethical norms as they developed through the late traditional period through to 1800 and also to appreciate the similarities and differences among these civilizations. Not offered 2006-2007.

246 **East Asia since 1800** (3). A history of East Asia from 1800 to the present, this course emphasizes the history of China and Japan, but the history of Korea is also included. Primary objectives are for students to grasp the essentials of the patterns of East Asian societies on the eve of the modern period, then to gain an appreciation of the travails of modernity in all three countries, as they were transformed from traditional societies to modern nation-states. Another objective is to gain an appreciation of the inter-relatedness of the East Asian nations' history in the past 100 to 150 years. Not offered 2006-2007.

North America

229 **U.S.A.** (4). F. Selected themes in American history from colonial times to the present. *This course is not intended for those who plan to take period courses in American history.*

251 **Colonial America, 1500-1763** (3). S. A historical study of the British North America from the first European settlements to the eve of the American Revolution. After examining the European background of and Native American responses to colonization, the course will trace the development of the different social systems and regional cultures that emerged along the Atlantic: Puritan New England, plantation Virginia, commercial mid-Atlantic, Caribbean Carolina, and Scots-Irish backcountry. Special emphasis is given to the role of religion and politics in launching and steering this process.

252 **The American Republic, 1763-1877** (3). An examination of the emergence of the United States from the revolutionary era through Reconstruction, tracing the challenges that faced its citizens in building and preserving a national union. The course will study the period of Independence and Federalism, Jeffersonian, and Jacksonian politics, westward expansion, slavery and sectionalism, the Civil War and Reconstruction, and post-War expansion. Not offered 2006-2007.

253 **Industrial America, 1877-1945** (3). F. A historical study of the United States from the end of Reconstruction through World War II, treating political and cultural developments against the background of the nation's turn toward an industrial economy, urban society, and global empire. Particular attention will be paid to religious currents, increasing racial/ethnic complexity, and the changing fortunes of the liberal political-economy in war, peace, prosperity, and depression.

254 **Recent America, 1945-present** (3). S. A study of American history since World War

II, focusing on the national impact of the United States' unprecedented international role and power. Particular attention will be paid to the civil rights movement, culture and politics under the Cold War, the 1960's "youth revolution" and renewal of American feminism, the emergence of postmodern culture, and the transition to a postindustrial economy.

255 **African-American History** (3). An intensive inquiry into the role of the Afro-American in the history of the United States, including an evaluation of past and present assumptions of the place of the Afro-American in American life, and an acquaintance with the historiography on this subject. Not offered 2006-2007.

256 **Women and Gender in U.S. History** (3). An introduction to topics in the history of women in North America and to the use of gender as a historical category of analysis. This course examines experiences unique to women as well as the changing perceptions of masculinity and femininity evident in different historical epochs. Not offered 2006-2007.

257 **History of the North American West** (3). A study of the American West from the pre-Columbian plains to present-day California, and as a landscape of the mind as well as a real place. The course will plumb the historical significance of the myths made about the West as well as events which actually transpired there, and students will be encouraged to reflect on what the existence of the two "Wests" tells them about America as a whole. Not offered 2006-2007.

Europe

223 **Russia** (3) A survey of the political, social, and cultural history of Russia, from its medieval origins as Muscovy through the Romanov Empire and Soviet Communism. The course will address the importance of Orthodox Christianity, the expansion of Russian rule across Eurasia, the interactions between ethnic Russians and their subject peoples, the attempts to modernize Russia along Western lines, the history of the Soviet regime, and its legacies for Russia today. Not offered 2006-2007.

225 **England** (3). S. A survey of English history including the Anglo-Saxon background; the medieval intellectual, religious, and constitutional developments; the Tudor and Stuart religious and political revolutions; the emergence of Great Britain as a world power; and the growth of social, economic, and political institutions in the modern period.

228 **Spain** (3).. A selective survey of Spanish political, social, and religious history from the Middle Ages through the 1980s, with particular emphasis on the medieval Christian-Jewish-Muslim era and the imperial or "Golden Age" period of the sixteenth and seventeenth centuries. Topics will include the medieval Reconquest, *convivencia,* the formation of "Spain" out of disparate medieval kingdoms, the unique role of the Catholic Church and the Inquisition in Spanish society, the colonization of Latin America, the flowering of "Golden Age" art and literature, and the political and economic "decline" of the seventeenth century. NOTE: Qualified participants are encouraged to enroll simultaneously in Spanish 306, a one-hour Spanish-language discussion lab open only to students enrolled in History 228. Not offered 2006-2007.

261 **Ancient Greece and Rome** (3). F and S. A study of the history of Greece and Rome from the Minoan Age through the reign of the Emperor Theodosius. The emphasis is on the political and economic changes, which were the background for the shifts in intellectual style. Particular problems are studied in depth: The emergence of the city-state; the Periclean age of Athens; the age of Alexander; the crisis of the Roman Republic; and the Decline.

262 **Europe in Late Antiquity and the Early-Middle Ages** (3). A study of the emergence of Europe out of the Roman Empire alongside the Byzantine Empire and Islamic commonwealth. Special attention is given to the Christianization of the Roman Empire, Christian missions to Western Europe, the role of monasticism, and the way that early medieval Europe, like its neighboring cultures, integrated its Roman-Hellenistic heritage into its new forms. Not offered 2006-2007.

263 **Europe in the High- and Late-Middle Ages, 900-1450** (3). This course includes a treatment of one of the most formative periods in the development of European cul-

ture and institutions, when strong monarchies emerged out of feudalism, and a new religious vitality transformed Christian spirituality. These impulses are traced through the rise of schools and universities, the Crusades, and the role of the papacy as a unifying political force in Western Christendom, concluding with the late-medieval economic and demographic crisis and the break-up of the medieval worldview in Renaissance Italy. Not offered 2006-2007.

264 **Reformation and Early Modern Europe** (3) A survey of European political and social history from the early 16th century to the late 18th century, with particular emphasis on the Protestant Reformation, its social and intellectual origins, and its political and social contexts and consequences, and on selected "revolutionary" political and intellectual movements, such as the Thirty Years' War, the English Revolution, the emergence of modern science, the Enlightenment, and the French Revolution. Not offered 2006-2007.

266 **Nineteenth-Century Europe** (3). F. The history of Europe from the French Revolution to World War I. Special attention is paid to social and cultural developments, including the rise of industrial society, ideologies and protest movements, nation-building, mass politics, materialism, and the fin de siecle revolution in art and thought.

267 **Twentieth-Century Europe** (3). S. The history of Europe from World War I to the present. This course examines the social, cultural, and political implications of the century's major events such as the two World Wars, the rise of totalitarianism, the Holocaust, the emergence of the Cold War, the founding of the European Union, and the fall of the Berlin Wall. Special attention is given to the enduring tension between European unity and national particularism as well as to the burden of the European past.

268 **Women and Gender in European History** (3). An introduction to topics in the history of women in Europe and to the use of gender as a historical category of analysis. This course examines experiences unique to women as well as the changing perceptions of masculinity and femininity throughout European history. Not offered 2006-2007.

Global Histories

271 **War and Society** (3). F. A survey of key episodes in world history from the perspective of the social history of war. The course emphasizes the social, economic, cultural, and religious contexts and consequences of warfare. Case studies drawn from various civilizations and from the ancient, medieval, and modern eras explore the thesis that armed conflict has been a significant variable affecting the processes of world historical development.

272 **Contemporary World** (3). S. A topical analysis of twentieth-century history, using the Korean War as a point of entry for the study of post-World War II global dynamics. The course will consider the antecedents and consequences of the war, but especially the meanings it held in the eyes of the different nations affected by the conflict, and the policies and behavior they generated in response.

273 **The Communist World** (3). S. A survey of the history of Communism and the legacies of communist rule. The course will address the variations in Marxist thought, the totalitarian model of Stalinism, the rise of communist movements in the developing world, dissident resistance, Communism and the church, the failures of the regimes in Eastern Europe and Russia, and the reforms and repression of Deng Xiaoping in China.

Theory and Practice of History

294 **Research Methods of History** (2). F, I, and S. An introduction to historical sources, bibliography, and research techniques, giving particular attention to the different genres of history writing, the mechanics of professional notation, and critical use of print and electronic research data bases. Intended as preparation for 300-level courses.

Advanced Courses

Enrollment in all 300-level courses presupposes two courses in History or permission of the instructor.

World Regions

331 **Studies in Middle Eastern History** (3). *F. A study of the relationship between the United States and the Middle East in the twentieth century. With the collapse of Eu-

ropean colonial empires and the onset of the cold war after World War II, the United States became increasingly involved in Turkey, Iran, Israel, Egypt, and the other Arab states. The course examines political, economic, social, and religious aspects of this environment. Issues taken up include military alliance systems, economic liberalism, politicized Islam, Christian Zionism, cultural exchanges, and popular images and the academic critique of Orientalism. Discussion of readings is emphasized. This course is eligible for concurrent registration in History 394.

338 **Mexico and the Americas** (3). *A study of crucial phases in the history of Mexico, from its pre-Columbian civilizations through its revolutionary experience in the twentieth century. Special emphasis will be given to varying interpretations thereof, upon the role of religion in supporting and challenging political regimes, and upon the Mexican Diaspora in the United States. This course is eligible for concurrent registration with History 394. Not offered 2006-2007.

346 **Modern China** (3). *A comprehensive treatment in depth of Chinese history from the Qing Dynasty, i.e. about 1650 to the present. In addition to the basics of political, social and economic history, the course will also stress intellectual and religious currents, including the role of Christianity. Not offered 2006-2007.

North America

354 **American Religious History** (3). * A study of religion in modern America, tracing a theme or problem that connects the different phases of development, confessional traditions, and sociocultural contexts pertinent to Americans' religious experience in this era. Topics might include religion and the city, religion and race, religion in popular culture, faith and skepticism, etc. Not offered 2006-2007.

355 **American Intellectual History** (3). *F. This course will trace American understandings of "liberty" and "slavery" from 1750 to 1875: that is, from the time when the Enlightenment and religious awakenings gave these concepts new meanings, through the end of Reconstruction, when the re-definitions accorded them by the Civil War were fixed in place. We will examine in particular the development of religious and political ideas, the varieties of abolitionist and pro-slavery thought, and the interplay of all of these against the background of the nation's rapid economic development and growing sectional discord.

356 **American Social and Cultural History** (3). *S. A study of the development of American society from 1776 to the present with reference to developments other than those primarily political or intellectual, such as social reform movements, popular culture, art and architecture, educational developments, the labor movement, immigration, nativism and racism, and urban problems. This course is eligible for concurrent registration with History 394.

357 **American Economic History** (4). *S. A study of United States economic history from colonial times to the present, emphasizing the foundations of the American economy, the dynamics behind American economic expansion, the history of American business, and the costs and benefits of industrialization and modernization.

358 **Studies in the North American West** (3). *S. Violence in the American West, from the Spanish colonial era to the present. This course is about conquistadors, gunslingers, anarchist saboteurs, vigilante lynchings, cowboys fighting in saloons, enslaved Chinese prostitutes, Indian warriors, Mormon ambushes, riots in post-industrial LA, and more. It uses these striking figures, and events such as the Ludlow Massacre and Custer's Last Stand, to examine the function of violence in the political, social, and economic evolution of the region. The course also examines the popular culture of violence in Western fiction and film. This violence has been about class conflict, racial and cultural antagonism, competing political visions, and ideals of manhood. The course focuses on the American West, but it makes brief comparisons to other regions of the US and similar frontiers in Canada, Mexico, South Africa, Latin America, and Australia.

Students who take the History 394 seminar in connection with History 358 are encouraged to do papers on a topic related to violence, but may choose other topics set in the American West during any period. They

may also do papers on other frontiers during the nineteenth and twentieth centuries. This course is eligible for concurrent registration in History 394.

Europe

362 **Studies in Medieval Europe** (3). *F. Focuses on a particular topic or period within the Middle Ages for advanced historical study. For Fall 2006, the topic will be: "The Bible in the Middle Ages". The influence of the Bible on medieval culture was immense, not only in theology and spirituality, but also in literature and language, art, and institutions such as government and law. This course will examine this influence, tracing the history of the Bible both as a book and as a text, and its influence on all aspects of medieval life. This course is eligible for concurrent registration with History 394.

363 **Studies in Early Modern Europe** (3). *S. This course will look in detail at Calvinism, one of the leading Protestant movements that began in early modern Europe and reshaped the religious and political landscape in Europe and in the American colonies in the 16th and early 17th centuries. Beginning with Geneva, the course will examine the ways in which Calvinism spread, changed and developed in different political, social and cultural contexts. We will focus on the connections between religious change and social and political transformations. We will examine the aims of the Calvinist clergy versus those of lay people, and the approach taken by Calvinism on key concepts such as church discipline, the right of resistance and the appropriate sphere of action of church and state. This course will seek to bring to light the variety of experiences of leading Calvinist pastors, but also those of ordinary people. We will read a range of primary sources in English as well as a number of articles by leading scholars of the Reformation. This course is eligible for concurrent registration with History 394.

364 **Studies in Modern Europe** (3). *Exploring the changing roles of individuals in post-1789 European society, this course examines major trends and events through the perspective of their impact on the self-perception of individuals. The course proceeds through such topics as the development of working-class consciousness, the rise of the respectable middle class, the Nazification of "ordinary Germans", and the meaning of religious identity in modern society. Not offered 2006-2007.

Global Histories

371 **Asia and the Pacific since 1850** (3). *S This course will examine the experience and impact of Westerners in East Asia, principally between 1850 and 1950. It will take a sampling from each category of Western residents (many of whom were Americans) who played interesting roles in the modern history of China, Japan, and Korea: Foreign missionaries, merchants, diplomats, and academics. In addition to other course work, each student will select a case study of an individual, family, or small group as the subject of a paper. This course is eligible for concurrent registration with History 394.

372 **Europe's Global Empires** (3). * Examines dimensions of European imperialism from its inception in the fifteenth century to its demise in the twentieth. The course may focus on the empire of a single European nation (e.g., Britain or Spain) or may conduct a comparative study of several nations' empires from a particular analytical perspective. This course is eligible for concurrent registration with History 394. Not offered 2006-2007.

Theory and Practice of History

359 **Seminar in the Teaching of History at the Secondary Level** (3). F and S. This course is designed to assist student teachers in developing appropriate goals and effective methods of teaching history at the middle and high school level. The seminar also provides a forum for the discussion of problems that develop during student teaching. Prerequisites: History 375, concurrent enrollment in Education 346 and an approved history major.

375 **Methods and Pedagogies for Secondary Social Studies** (3). A course in perspectives on, principles of, and practices in teaching of history, government, geography, and economics at the secondary level. Included are teaching strategies, curriculum studies, readings regarding new developments in social

studies education and an examination of these topics as they relate to a Christian view of human nature. Prerequisites: Education 302-303 or permission of the instructor.

380 **Field Work in Middle East Archaeology** (5). See Archaeology Interdisciplinary 340.

390 **Independent Study**. F, I, and S.

390H **Honors Tutorial in History** (3). * F.

391H **Honors Senior Thesis** (3). *S. A two-semester sequence designed to lead students to the writing of a more substantial seminar paper than is possible in History 394. Students spend fall term in History 390H conducting a thorough investigation of the secondary literature on and around a topic which they choose in close consultation with their advisor. They proceed in spring term to write a senior thesis upon that topic. Required for students in the department's honors track and highly recommended for those planning to pursue graduate studies in history.

393 **Museum Studies** (3). * F.

394 **Research Seminar** (2). * F and S. An intensive study of a specific question or topic to the end of producing an article-length (20-25 pp.) paper based on original sources and addressing a well-defined historiographical problem in the field. Not open to first- or second-year students.

395 **Historiographical Perspectives** (3). * F and S. The capstone in the history major, this course examines the history of history writing in the Western tradition with a view toward articulating a critical Christian perspective on the discipline. Emphasis is on reading and discussion of significant monuments of Western historiography. By means of persistent critical reflection throughout the course on the texts and on current epistemological and methodological issues, a variety of Christian perspectives are engaged and evaluated, and the students challenged to articulate their own.

Graduate Courses

590 **Independent Study**. F, I, and S.

Interdisciplinary

This section includes not only courses that are interdisciplinary, but others also that do not fit logically into any single department or which are in disciplines not otherwise offered at Calvin College.

COURSES

102 **Oral Rhetoric for Engineers** (2). F and S. A study of the principles of oral rhetoric, with emphasis on developing student competency in preparing and delivering effective speeches. The emphasis is on basic speech design for engineers communicating their creation and refinement of ideas to peers, managers, subordinates, venture capitalists, and to the public at large.

110 **Foundations of Information Technology** (1) F and S. Core. A first-year introduction to the foundations of information technology. Topics discussed include computer hardware and software systems, quantitative analysis with spreadsheets, networking and web publishing, the cultural impact of this technology and the ethical responsibilities of its users.

149 **First Year Prelude** (1). F. The First Year Prelude Program introduces students to Calvin College as a Christian community of inquiry. Prelude provides an intellectual introduction to a Christian worldview, and its implications for issues of contemporary relevance, specifically exploring learning, listening, discerning, obedience, hospitality, and awareness through a Reformed Christian perspective. Meets during the first seven weeks of the semester.

150 **Developing a Christian Mind** (3). I and S. Taken during the first-year interim, this course introduces students to the central intellectual project of Calvin College, the development of a Christian worldview and a broad, faith-based engagement with the ambient culture. A set of common readings sketches out basic biblical themes and helps students begin to formulate a Christian frame of reference as they pursue their academic vocation. In addition to these common readings and themes, each section of the course defines a particular academic issue to explore from the perspective of Christian faith and praxis.

** Several sections of DCM are offered during the spring semester to accommodate first-year students enrolled in the Foreign Language sequence 121-122-123/202. In addition, individual and multiple sections of the course have specific subtitles indicating the special focus of each.

160 **Energy: Resources, Use, and Stewardship** (4). F. An introduction to the nature of energy and energy transformations with an emphasis on the different forms of energy and the use and availability of different energy resources, this course includes a study of the environmental implications of the use of a variety of energy resources such as fossil fuels, renewable resources, and nuclear energy resources. This course is taught from a biblical worldview and includes a discussion of the relationship between God, humans, the creation, the nature of science, and the validity and limitations of scientific knowledge. From these discussions a biblical view of stewardship and its implications for our use of energy resources is developed. Laboratory.

190 **Contextual Diversity Studies** (1). F and S. The Mosaic Floor is a living-learning community made up predominantly of first year and sophomore students. Students explore cultural diversity and racism. Due to the intentional nature of the community, students must apply to live on the floor.

191 **Introductory Meteorology** (4). S. See Geography 191 for the full course description.

192 **Across Cultures**. (1). F and S. In this class, which is made up of half American/Canadian students and half international students, discussion both inside and outside of the classroom helps students understand different values of different cultures. Topics include individualism, time orientation, ethnocentrism, and communication styles. Class meets for ten weeks and satisfies the cross-cultural engagement core requirement. Note that international students register for IDIS 192A and American/Canadian students for IDIS 192B.

193 **Conversation Partners**. (1). F and S. Each American or Canadian student partners with someone, usually a Calvin seminarian or spouse, for whom English is a second language. While the ESL partner has opportunity to practice spoken English and learn about the American culture, the American/Canadian student has opportunity to learn about the life and culture of their international partner. Class meets four times at the beginning of the semester. Partners meet for conversation throughout the semester. This course meets the cross-cultural engagement core requirement.

194 **American Ways: A Guide for International Students**. (1). S. This course is designed to help new international students better understand the culture of college life in the U.S. Topics covered include interpersonal relationships, time management, study skills, working on-campus and personal finances. The class is open to citizens of countries other than the U.S. or Canada who have recently come to the U.S. Class meets for ten weeks and satisfies the cross-cultural engagement core requirement.

205 **Societal Structures and Education as a Social Enterprise** (3). F and S. An examination of the interaction between education and the other systems and institutions (e.g., political, economic, and cultural) that shape society. This course will examine how education is shaped by and is reshaping these systems and institutions. Particular attention will be given to the impact of race, class, and gender on schooling and society. Community-based research projects will challenge students to examine these issues in real-life contexts as well as introducing them to social science research methodology. Christian norms, such as social justice, will shape this critical analysis of the interaction between education and society. This class is appropriate for all students who are interested in edu-

cation and society and meets a core requirement in the Societal Structures category.

234 **The Contemporary American Religious Situation** (3). F. A description and analysis of current American religious developments in historical, sociological, and theological perspective. Institutional and non-institutional developments, within and outside the Judeo-Christian tradition, will be examined. Not offered 2007-2008.

240 **Introduction to Archaeology** (3). See Archaeology for course description.

301 **Bilingual and ESL Education for Elementary Teachers** (3). *F. This course prepares students to teach in classrooms where English is the second language, helping them bring their knowledge of second language acquisition to classroom settings. In this course, students will learn to recognize linguistic, cognitive, affective, and social factors that influence the acquisition of a second language. Course topics include teaching in content areas, classroom methods, curriculum design, and assessment. Elementary field experience required.

302 **Bilingual and ESL Education for Secondary Teachers** (3). *F. This course prepares students to teach in classrooms where English is the second language, helping them bring their knowledge of second language acquisition to classroom settings. In this course, students will learn to recognize linguistic, cognitive, affective, and social factors that influence the acquisition of a second language. Course topics include teaching in content areas, classroom methods, curriculum design, and assessment. Secondary/adult education field experience required.

306 **Introduction to Medieval Studies** (3). I, offered biennially. A classroom introduction to the skills that are specific to the interdisciplinary method of studying the Middle Ages, structured around a theme such as, "The Bible in the Middle Ages", or "The cult of the Virgin Mary". This course is mandatory for those students who have selected a minor in medieval studies, but it is open to anyone with an interest in the Middle Ages. Offered during Interim 2008.

310 **History of Physical Science** (3). S. Integrative Studies/ Capstone. An examination of natural philosophy in the 17th century and of major developments since then in the physical sciences (predominantly physics and chemistry). Particular attention is given to the philosophical and religious background of scientific ideas and the institutional context in which science develops. A central theme of this capstone course will be the investigation of the interaction of science and religion with a view toward articulating a critical reformed Christian perspective on this historical development. Some primary texts will be considered. Prerequisites: DCM, HIST 151 or 152, PHIL 153, REL 121 or 131, junior/senior standing, and a declared major in the natural sciences (or approval of the instructor).

340 **Field Work in Archaeology**. See Archaeology for course description.

356 **Introduction to Elementary World-Languages Pedagogy** (3). *F and I. Theory and practice of teaching world languages in the elementary school. Study of language skill development, second language acquisition, methodologies, curricula, and programs. Off-campus school visits for observation and aiding experience. Should be taken in the junior or senior year, prior to student teaching. Required for elementary certification in world languages, including ESL, and the K-12 secondary major. Prerequisite: completion of or concurrent registration in Education 302/303.

357 **Introduction to Secondary World-Languages Pedagogy** (3). F. An introduction to the major principles and practices of teaching world languages, offering a study of various methodologies and the major controversies associated with them. The course explores how a Christian approach to education affects second-language pedagogy and how this pedagogy interacts with the language learner's personal growth. It also introduces the prospective educator to the teaching of the basic skills, to issues in evaluation and assessment, and to the use of technologies in the language classroom. This course should be taken in the junior or senior year, prior to student teaching. Required for secondary certification in world languages, including the ESL secondary endorsement. Prerequisite: completion of or concurrent registration in Education 302/303.

359 **Seminar in Secondary World-Languages Pedagogy** (3). S. A seminar reinforcing the major principles and practices of world-languages pedagogy on the secondary level for students during their semester of directed teaching, to be taken concurrently with Education 346. This course provides opportunities for collaborative work on putting theoretical and pedagogical matters of immediate concern into a practical framework. Prerequisites: Education 302/303 and successful completion of departmental proficiency exams.

374 **Models of Ministry to Youth** (2). F. This course provides a forum for students, youth ministry practitioners, and theological scholars to investigate and evaluate a variety of models for the church's ministry to the youth of the church and community. Students, practitioners, and scholars will employ a variety of methods including, but not limited to, a field trip, presentations by nationally recognized youth ministry experts, and critical theological reflection on key issues associated with youth ministry. The course is specially designed for cross registration with students from Calvin College and Calvin Theological Seminary. Prerequisites: junior or senior status. It follows the academic calendar of Calvin Theological Seminary where the course is taught.

378 **A Christian Calling: Proclaiming Jubilee as a Christian Leader**. (3). S. The aim of this course is to describe the strategic role that leaders within the church have played and continue to play in the economy of gifts God gives to his people: and to assist twelve (12) upper-level students, Jubilee Fellows, to discern whether God might be calling them to become a church leader. Prerequisites: Admission to the Jubilee Fellows program; permission of the instructors.

380 **Youth Ministry Internship** (4). F and S. Students work in a local church or parachurch ministry where they receive an appointment to conduct specific responsibilities in youth ministry related to the education of middle school and/or high school young people. Students will work a minimum of eight hours per week under the supervision of an on-site supervisor and participate in regular seminar meetings conducted by the college youth ministry advisor. Internship experiences will equip the students with the ability to integrate educational theory, and theoretical understandings from related disciplines, with the practice of contemporary church-based youth ministry. Each student will produce a project that demonstrates his or her competency in such learning transfer related to specific aspects of youth ministry experienced in the internship and will also meet with the seminar instructor for an oral evaluation. Prerequisites: junior or senior class level; completion of IDIS 374 or Psychology 322 ; Education 102 or the permission of the instructor.

391 **Seminar in African and African Diaspora Studies** (3). From Africa to the West, colonialization and neo-colonialization have formed a historically-based social and structural context from which emerge racialized gender representations, identity, and cultural frames. This interdisciplinary course utilizes a Christian lens to : explore and deconstruct colonialism/neo-colonialism; examine and critique that context's raced and gendered social ideologies including "Blackness", Whiteness, marginalization, and structures (economic, political, religious, schooling, etc.), movements of resistance, empowerment, and reform as well as issues of language, identity and culture. Special attention will be paid to an Afro-Christian perspective and critique, critical theory, and representation. From a historical backdrop, we will examine the neo-colonial social context, its operational impact, globalization, and the need/mean for transformation. Prerequisites: Three courses from the African an African Diaspora minor (at least two of which must be in one of the social sciences indicated in the minor) or approval of the instructor.

393 **Project Neighborhood Service-Learning Seminar** (1). F and S. This seminar integrates content related to urban community assessment, organization, and development in connection with service learning in the local community, using a cycle of action and reflection, in a group composed of Project Neighborhood Lake Drive House residents.

394 **Gender Studies Capstone** (3). S. An integrative course that refers to previous work in the minor, focusing particularly on current research, theory, and controversies in the field. Special attention will be paid to

nurturing mature Christian thinking on gender issues.

590 **Independent Study**. F, I, S, and SS. Students normally register for this course in conjunction with a course in one of the disciplines. Prerequisite: Admission to a Master's degree program.

International Development Studies

The IDS major consists of eleven courses, eight required and three elective. A semester program in a developing country is also required for the major. Depending on the program, some courses from off-campus programs may apply as either required or elective courses. The IDS minor consists of six courses, three required and three elective, which together comprise a coherent, planned, interdisciplinary program in development studies. An IDS advisor must approve the plan for the minor. An interim or semester experience in a developing country is also normally expected. One approved interim course may apply to either major or minor programs. The program director is R. Hoksbergen, of the Department of Economics. Advisors for the IDS program are R. Hoksbergen, D. Miller of the History Department, A. Mpesha of the Business Department, A. Patterson of the Political Science Department and T. Vanden Berg of the Sociology Department.

INTERNATIONAL DEVELOPMENT STUDIES MAJOR

One from IDS 201 or SPHO 205
Sociology 253
IDS 351
One from IDS 355 or STHO 212
IDS 395
One from Environmental Studies 210, Biology 364 or the semester in Thailand
One from Political Science 272 or Political Science 309
One from Economics 237 or Economics 337 (note: both of these courses have prerequisites)
Semester experience in a developing country
Three electives from:
Biology 364
CAS 330
Economics 237, 337, 338
Environmental Studies 210, 302
French 219
Geography 230, 240, 242
History 233, 235, 238, 242, 246,273, 331, 338, 346
IDS 359 (counts for 2 electives)
Political Science 271, 272, 276, 277, 279, 307, 309, 319, 328
Religion 252, 255, 353, 354, 355
Sociology 153, 252, 303, 308
Spanish 309, 361, 362, 363
SPHO 313
STHO 210
STHO 211
Approved courses from off-campus semesters
One approved interim course

INTERNATIONAL DEVELOPMENT STUDIES MINOR

One from IDS 201 or SPHO 205
Sociology 253
One from IDS 351, IDS 355 or STHO 212
Interim or semester in a developing country (or its equivalent)
Three advisor approved electives from the list of elective courses for the major, and also including IDS 351, 355, 395 and STHO 212.

COURSES

For non-IDS courses, please refer to course descriptions in their respective departments.

201 **Introduction to International Development** (3). F and S. An introduction to the history of Third World development, to the realities of contemporary life in the world's low income countries, and to competing theoretical perspectives on development and change. The course addresses cultural, social, political, religious, economic, and environmental elements of people's lives in the developing world. It also surveys and critiques such dominant perspectives on development as modernization, dependency, world systems, globalization, and sustainable development.

351 **Theories of International Development** (3). F and S. An in depth study of some of the major contemporary theories about the causes and explanations of low levels of development as well as corresponding recommendations for promoting development at a national/international level. The main focus is on the primary causal factors of national development emphasized by different contemporary theories. Such factors include economic institutions and policies; political institutions and governance; cultural and religious orientations and practices; human rights; geography, natural resources, and the natural environment; technology; social capital and civil society; and globalization/imperialism. Prerequisite: IDS 201, SPHO 205 or permission of instructor.

355 **Community Development** (3). F. A study of the theories, problems and methods associated with international development work at the community level. Topics include community mapping, survey and assessment methods, project planning and evaluation, community development practices, grant writing, organizational development and capacity building, donor-client relationships, organizational partnerships, advocacy, and fund raising. Special attention is given to the way Christian development organizations carry out these methods. Most of the course is directed toward international community development experiences, but some case studies and illustrations are also taken from a North American context. Prerequisite: IDS 201, SPHO 205 or permission of instructor.

359 **Internship in Development** (12). F and S. Internships will typically take place in collaboration with the Christian Reformed World Relief Committee (CRWRC), and will generally involve CRWRC's placement of the student with one of its partner organizations, either in a developing nation or in North America. Students will work for four to five months with this partner in areas of development work including community development, micro-enterprise and business development, literacy and adult education, organizational capacity building, data gathering, basic health, disaster preparedness and response, refugee assistance and resettlement, local church-based development, and peace and reconciliation work. Placement will occur through an application and interview process. See one of the IDS advisors for more information. Prerequisites: IDS 201 or SPHO 205, Sociology 253, a semester educational experience in a developing nation or its equivalent, appropriate language capabilities, and junior/senior status.

395 **Senior Seminar in International Development Studies** (3). S. A study of the worldview foundations of contemporary development theories, with special attention to Christian perspectives on development and development work. Topics include modernization, dependency, post-development, feminist and capabilities approach perspectives on development, as well as Christian perspectives on development arising from the Roman Catholic, Mennonite and Reformed traditions. Prerequisites: Senior status and two IDS courses.

International Relations

See the Department of Political Science for a description of courses and programs of concentration in International Relations.

Japanese Language and Literature

Associate Professors H. DeVries (chair), L. Herzberg

A Japanese language major is available under the Asian Studies Major, Track 2: Japanese Language Track (see "Asian Studies"). The major includes eight Japanese language courses and four culture courses.

There are two possible minors available, namely the Japanese language minor and the Japanese Study Group Minor.

The foreign language core requirement can be met by the study of Japanese through the intermediate level (Japanese 202).

During both fall and spring semesters students may participate in a semester program of intensive Japanese language study at the Japan Center for Michigan Universities in Hikone, Japan. The Center is run in cooperation with the University of Michigan, Michigan State University and other Michigan colleges and universities. In the summer only intensive Japanese language courses are offered in Japan. The advisor for this program is L. Herzberg.

JAPANESE MINOR

Japanese 101
Japanese 102
Japanese 201
Japanese 202
Japanese 215
Japanese 216
Japanese 217 or 218

JAPANESE STUDY GROUP MINOR

Japanese 101
Japanese 102
Japanese 201
Japanese 202
Three courses from
Art History 241, History 245, 246, 371, Political Science 277, Religion 255, any interim course on Japan or culture course offered in the semester program in Japan.

COURSES

101 **Elementary Japanese** (4). F. An introduction to Japanese language and culture, stressing both spoken and written Japanese. After one semester students will be able to carry on simple conversations in Japanese, read dialogues written in Japanese, and understand some fundamentals of Japanese social values and ways of thinking.

102 **Elementary Japanese** (4). S. A continuation of Japanese 101. Continued study of Japanese grammar with equal emphasis on improving conversational proficiency and on reading and writing Japanese. Many more "kanji" (Chinese characters) will be introduced for reading and writing and as a medium for gaining insight into Japanese culture. Prerequisite: Japanese 101 or permission of the instructor.

201 **Intermediate Japanese** (4). F. The goal of this course is to further the student's ability to speak, understand, read, and write the Japanese language. Extensive oral drills and reading exercises continue to be used. By the end of the term, the student will know 300 "kanji". Numerous cultural notes and written dialogues portraying various social situations provide insight into Japanese culture and various ways of thinking. Prerequisite: Japanese 102 or permission of the instructor.

202 **Intermediate Japanese** (4). S. This semester completes the study of basic Japanese grammar and syntax. By the end of the semester the student will have been introduced to all the basic grammar patterns of Japanese and will have mastered a total of 500 "kanji".

215 **Advanced Conversation** (4). F. This

course is designed to develop advanced aural comprehension skills as well as advanced competence in spoken Japanese through exercises, drills, and conversation in class. Students will also continue their study of the written language by learning many new "kanji". Prerequisite: Japanese 202 or permission of the instructor.

216 **Advanced Grammar and Composition** (4). S. The systematic study of advanced grammar and composition. Students will learn many new "kanji" as they improve their skills in written Japanese. Conversation practice will also be emphasized. Prerequisite: Japanese 215 or permission of the instructor.

217 **Introduction to Modern Japanese Literature: 1868 to the Present** (3). F. A continuation of Japanese language study and an introduction to works written by major Japanese authors from 1868--when Japan opened itself to the rest of the world and entered the modern era--to the present, as well as selected readings on Japanese history, society, and culture. Prerequisite: Japanese 216.

218 **Further Studies in Modern Japanese Literature: 1868 to the Present** (3). S. This course builds on Japanese 217 and deals with literary texts of greater linguistic difficulty. It also includes further language study and selected readings on Japanese history, society, and culture. Prerequisite: Japanese 217.

Kiswahili

See the Department of African Studies for a description of courses in Kiswahili.

Latin

See the Department of Classical Languages for a description of courses and programs of concentration in Latin.

Latin American Studies

The interdisciplinary minor in Latin American Studies is designed to acquaint students with the histories, cultures, languages and contemporary realities of Latin America. The minor forms an appropriate background for people who intend to live and work in Latin America as well as those who intend to live and work with Latino people in North America.

The minor consists of six courses (minimum of 18 semester hours), three required and three electives, distributed as described below. No more than three courses may come from a single discipline/department, and at least two courses must be at the 300 level. Participation in an off- campus semester program or interim course in Latin America is required. Competence in an appropriate foreign language (Spanish, Portuguese, French) is also required and will be demonstrated by the successful completion of a literature or culture class at the 300 level in a foreign language. To be admitted to the minor, students must meet with an advisor to select courses that together comprise a coherent program. The advisor for the program is D. Ten Huisen (Spanish).

THE MINOR REQUIRES:

Off Campus Interim
Participation in one off-campus interim or semester program in Latin America

Contextual Studies and Social Science
One course from each of the following categories:
One Contextual Studies course from:
HIST 238, 338, or
Study in Honduras 210
One Social Science course from:
ECON 237 (when offered as Latin American Economies),
GEOG 240, PLSC 276,
Study in Honduras 205, 211, or
One Literature or Culture course taught in an appropriate language

Electives
Electives to reach a minimum of 18 total semester hours to be chosen in consultation with the advisor (no more than three courses in the entire minor may be in the same discipline):

On Campus Elective Courses
ART 243
ECON 237 (when offered as Latin American Economies)
GEOG 240
HIST 238, 338
PLSC 276
SPAN 308, 309, 310, 361, 362, 363, 370 (when the focus is on Latin America)
On-Campus Interim courses with relevant focus on Latin America

Off Campus Elective Courses
Honduras semester programs:
Study in Honduras 205, 210, 211, 212, 308, 309, 313, 342, 364, 393
Appropriate courses taken at the Universidad Pedagógica in Tegucigalpa may serve as electives or, in certain cases, as substitutes for required courses.

LASP Semester
Appropriate courses taken as part of the Calvin-approved Latin American Studies Program in Costa Rica,
SPAN W80 Interim in the Yucatan, or
Off-Campus Interim courses with relevant focus on Latin America

Other
Approved language courses in Portuguese or indigenous languages

Mathematics and Statistics

Professors R. J. Ferdinands, E. Fife, T. Jager, T. Kapitula, †J. Koop, M. Stob (chair), G. Talsma, G. Venema
Associate Professors M. Bolt, C. Moseley, R. Pruim, J. Turner
Assistant Professors A. Moore, M. Myers, T. Scofield
Adjunct D. Laverell

MATHEMATICS MAJOR

All proposed major programs must be designed in consultation with a departmental advisor and approved by the Department of Mathematics and Statistics. Major programs must consist of a coherent package of courses intended to serve the student's interests and career goals and meet the following minimum requirements:

Mathematics 161 or 160
Mathematics 162
Mathematics 256
At least one of Mathematics 231, 243, and 261
Mathematics 361
Mathematics 351 or 355
At least two additional courses from among Mathematics 301, 305, 312, 329, 333, 335, 343, 344, 351, 355, 362, 365, and 380 totaling at least seven semester hours
An approved interim
Mathematics 391 (taken twice)

Required Cognate
Computer Science 108

Students with specific educational or career goals should take additional courses. Descriptions of a number of expanded programs—including programs in applied mathematics, pure mathematics, computational mathematics, statistics, and actuarial studies—are available in the *Mathematics Student Handbook*, which is available from any member of the Department and on the departmental webpage.

ELEMENTARY AND SECONDARY EDUCATION MATHEMATICS MAJOR

Students desiring to be certified to teach secondary mathematics must complete a major program that includes each of the courses listed below. Students are encouraged to take additional electives.
Mathematics 161 or 160
Mathematics 162
Mathematics 243
Mathematics 256
Mathematics 301
Mathematics 329
Mathematics 351
Mathematics 361
Mathematics 380
An approved interim
Mathematics 391 (taken twice)

Required Cognate
Computer Science 108

MATHEMATICS MINOR

All proposed minor programs must be designed in consultation with a departmental advisor. Minor programs must meet the following minimum requirements:
Mathematics 161 or 160
Mathematics 162
At least two of Mathematics 231, 232, 243, 256, and 261
At least two of Mathematics 301, 305, 312, 333, 335, 343, 344, 351 355, 361, 362, 365, and 380 totaling at least seven semester hours

SECONDARY EDUCATION MATHEMATICS MINOR

Mathematics 161 or 160
Mathematics 162
Mathematics 256
Mathematics 243
Mathematics 301
Mathematics 329
Mathematics 361

Required Cognate
Computer Science 108

Prior to the teaching internship, students must have the approval of the department. Criteria for approval are found in the *Teacher Education Program Guidebook*, available in the Education Department. Directed teaching in secondary mathematics is available only during the fall semester.

ELEMENTARY EDUCATION MATHEMATICS MINOR

Mathematics 221
Mathematics 222
Mathematics 132 or Mathematics 161
Mathematics 110, an approved interim, or Mathematics 162
Mathematics 143 or Mathematics 243
IDIS 110
Three semester hours from IS 141, 151, 153, 171
(CPSC 108 or IS 271 may be substituted for the requirements on the two preceding lines)

The minor for elementary education should be chosen in consultation with a departmental advisor as choices for mathematics courses depend on the student's background.

GROUP MAJOR

A group major in science and mathematics meets the needs of some students, particularly those in professional programs. These majors are not appropriate for students who anticipate attending graduate school or who are in teacher education programs. Such group majors require twelve courses in the sciences and mathematics, ten of which must be from two departments with no fewer than four from either, with the remaining two courses chosen from a third department. The chairs of the three departments must approve each program of this type. The following two group majors are pre-approved. Other group majors may be arranged on an individual basis.

BUSINESS/MATHEMATICS GROUP MAJOR

Business 203
Business 204
Economics 221
Economics 222
Two Department Electives
Mathematics 161
Mathematics 162
Mathematics 256
Mathematics 261
Mathematics 343
Mathematics 344

Cognates

Information Systems 171
One from Information Systems 151, 153, 221, 141, 271, Computer Science 104, 108, or 112

MATHEMATICS/ECONOMICS GROUP MAJOR

Economics 221
Economics 222
One from Economics 323/325
One from Economics 324/326
Two department electives
Mathematics 161
Mathematics 162
Mathematics 256
Mathematics 261
Mathematics 343
Mathematics 344

Cognates

Information Systems 171
One from Information Systems 151, 153, 221, 141, 271, Computer Science 104, 108, or 112

HONORS PROGRAM

The departmental honors program leads to graduation with honors in mathematics or mathematics education. Beyond the requirements of the general honors program, these programs require further course work and a senior thesis. Details are available from the department. These programs require careful planning to complete, and students should normally apply for admission to the departmental honors program during their sophomore year at the same time that they submit a major concentration counseling sheet.

ADMISSION TO PROGRAM

A minimum grade of "C" (2.0) in one of Mathematics 231, 232, 243, 256, or 261 is required for admission to a program of concentration in the department.

THE MATHEMATICS CORE REQUIREMENT MAY BE MET BY ANY OF THE FOLLOWING

100, 143, 160, 161, or 221

COURSES

100 **Mathematics in the Contemporary World** (3). F and S. An introduction to the nature and variety of mathematics results and methods, mathematics models and their applications, and to the interaction between mathematics and culture. Not open to mathematics and natural science majors.

110 **Pre-calculus Mathematics** (4). F. A course in elementary functions to prepare students for the calculus sequence. Topics include the properties of the real number system, inequalities and absolute values, functions and their graphs, solutions of equations, polynomial functions, trigonometric functions, exponential, and logarithm functions. Prerequisite: Three years of college preparatory mathematics (excluding statistics courses).

132 **Calculus for Management, Life, and Social Sciences** (4). F and S. Functions, limits, and derivatives. Applications of derivatives to maximum-minimum problems, exponential and logarithmic functions, integrals, and functions of several variables. Not open to those who have completed Mathematics 161. Prerequisite: Mathematics 143 or permission of instructor.

143 **Introduction to Probability and Statistics** (4). F and S. An introduction to the concepts and methods of probability and statistics. The course is designed for students interested in the application of probability and statistics in business, economics, and the social and life sciences. Topics include descriptive statistics, probability theory, random variables and probability distributions, sampling distributions, point and interval estimation, hypothesis testing, analysis of variance, and correlation and regression.

156 **Discrete Mathematics for Computer Science** (4). F. An introduction to a number of topics in discrete mathematics that are particularly useful for work in computer science, including propositional logic, sets, functions, counting techniques, models of computation and graph theory. Applications in computer science. Prerequisite: Computer Science 108 or permission of the instructor.

159 **Elementary Functions and Calculus** (4). F. Mathematics 159 and 160 together serve as an alternative to Mathematics 161 for students who have completed four years of high school mathematics but who are not ready for calculus. Placement in Mathematics 159 or 161 is determined by a calculus readiness test that is administered to incoming first-year students during orientation. Topics include functions and their graphs, polynomial functions, trigonometric functions, exponential and logarithmic functions, limits, and derivatives. Prerequisite: Four years of college preparatory mathematics (excluding statistics courses).

160 **Elementary Functions and Calculus II** (3). I. A continuation of Mathematics 159. Topics include derivatives, applications of derivatives, integrals, and applications of integrals. Historical and philosophical aspects of calculus are integrated with the development of the mathematical ideas, providing a sense of the context in which calculus was developed. Prerequisite: Mathematics 159.

161 **Differential and Integral Calculus** (4). F and S. This course serves as an introduction to calculus. Topics include functions, limits, derivatives, applications of derivatives, integrals, and applications of integrals. Historical and philosophical aspects of calculus are integrated with the development of the mathematical ideas, providing a sense of the context in which calculus was developed. Prerequisite: Either four years of college preparatory mathematics (excluding statistics courses) or Mathematics 110. A calculus readiness test is administered by the department during orientation and some students may be placed in Mathematics 159 on the basis of that test.

162 **Techniques of Integration, Introduction to Infinite Series, and Multivariate Calculus** (4). F and S, honors section. Techniques of integration; rectangular, cylindrical, and spherical coordinate systems; vectors; partial derivatives; multiple integrals; and an introduction to sequences and series. Prerequisite: Mathematics 160 or 161. Laboratory. First-year students with advanced placement credit for Mathematics 161 should normally enroll in section AP.

190 **First-Year Seminar in Mathematics** (1). F. An introduction in seminar format to several different topics in mathematics not otherwise part of the undergraduate program. Topics vary by semester, but will include both classical and recent results and both theoretical and applied topics. The goals of the course are to acquaint students with the breadth of mathematics and to provide opportunity for students interested in mathematics to study these topics together. All first-year students interested in mathematics (regardless of prospective major program) are welcome to register. This course will be graded on a credit/no-credit basis.

201 **Quantitative Methods for Management** (4). F and S. Linear programming: basic concepts, spreadsheet modeling, applications. Network optimization, decision analysis, queuing, computer simulations. Prerequisite: Information Systems 171, Business 160, Mathematics 143. Open to first year students only with permission of instructor.

221 **The Real Number System and Methods for Elementary School Teachers** (4). F and S. This course provides prospective elementary school teachers with background needed for teaching elementary mathematics. Both content and methodology relevant to school mathematics are considered. Topics covered include the real number system and its sub-systems. Pedagogical issues addressed include the nature of mathematics and of mathematics learning and the role of problem solving and the impact of technology in the elementary school mathematics curriculum. Prerequisites: Not open to first year students except by permission of the instructor.

222 **Geometry, Probability, Statistics, and Methods for Elementary School Teachers** (4). F and S. This course is a continuation of Mathematics 221. Both content and methodology relevant to teaching geometry, probability, and statistics in elementary school are considered. Topics covered include basic

geometric concepts in two and three dimensions, transformational geometry, measurement, probability, and descriptive and inferential statistics. Pedagogical issues addressed include the place of geometry, probability, and statistics in the elementary school curriculum, use of computers in mathematics, and the development of geometric and probabilistic thinking. Prerequisite: Mathematics 221 or permission of the instructor.

231 **Differential Equations with Linear Algebra** (4). F and S. An introduction to solutions and applications of first and second-order ordinary differential equations including Laplace transforms, elementary linear algebra, systems of linear differential equations, numerical methods and non-linear equations. Prerequisites: Mathematics 162 and experience in computer programming.

232 **Engineering Mathematics** (4). F and S. A study of topics from vector calculus, linear algebra, and statistics that are useful to engineers. Topics include vector fields, line and surface integrals, Gaussian elimination and matrix factorization, vector spaces, linear independence and basis, orthogonal projection, least squares approximation, descriptive statistics, probability, statistical inference, and regression. Students may not receive credit for this course and any of Mathematics 243, 255, or 261. Prerequisite: Mathematics 231.

243 **Statistics** (4). S. Data analysis, data collection, random sampling, experimental design, descriptive statistics, probability, random variables and standard distributions, Central Limit Theorem, statistical inference, hypothesis tests, point and interval estimates, simple linear regression. Examples will be chosen from a variety of disciplines. Computer software will be used to display, analyze and simulate data. Prerequisite: Mathematics 162.

256 **Discrete Structures and Linear Algebra** (4). F and S. An introduction to mathematical reasoning, elementary number theory and linear algebra, including applications for computer science. Prerequisites: Computer Science 108, Mathematics 161 and Mathematics 156 or 162. (Computer Science 108 may be taken concurrently.)

261 **Vector Calculus and Advanced Topics in Infinite Series** (4). F. Infinite series, Taylor series, curves and motion in space, functions of several variables, line and surface integrals, and vector calculus. Prerequisite: Mathematics 162.

301 **The Foundations of Geometry** (3). S. A study of Euclidean and hyperbolic geometries from an axiomatic viewpoint. Additional topics include transformations, and the construction of models for geometries. Prerequisite: Mathematics 256 or permission of the instructor.

305 **The Geometry and Topology of Manifolds** (4). F, odd years. An introduction to the study of manifolds, including both the geometric topology and the differential geometry of manifolds. The emphasis is on low-dimensional manifolds, especially curves and surfaces. Topics include the topology of subsets of Euclidean space, curves and surfaces in Euclidean space, the topological classification of compact connected surfaces, smooth curves and surfaces, curvature, geodesics, the Gauss-Bonnet Theorem and the geometry of space. Prerequisites: Vector Calculus (Mathematics 232 or 261) and Linear Algebra (Mathematics 231, 232, 256 or 355).

312 **Logic, Computability, and Complexity** (4). F, even years. An introduction to first-order logic, computability and computational complexity. Topics covered include soundness and completeness of a formal proof system, computability and non-computability, and computational complexity with an emphasis on NP-completeness. Also listed as Computer Science 312. Prerequisite: Mathematics 256. Not offered 2007-2008.

329 **Introduction to Teaching Secondary School Mathematics** (2). S. This course introduces prospective teachers to important curricular and pedagogical issues related to teaching secondary school mathematics. These issues are addressed in the context of mathematical topics selected from the secondary school curriculum. The course should be taken during the spring preceding student teaching. Prerequisite: A 300-level course in Mathematics.

333 **Partial Differential Equations** (4). F. An Introduction to partial differential equations and their applications. Topics Include mathematical modeling with partial differential equations, nondimensionalization, orthogo-

nal expansions, solution methods for linear Initial and boundary-value problems, asymptotic expansions, and numerical solution of partial differential equations. Prerequisites: Mathematics 231 and either 261 or 232.

335 **Numerical Analysis** (4). S, odd years. Theory and practice of computational procedures Including principles of error analysis and scientific computation, root-finding, polynomial Interpolation, splines, numerical Integration, applications to ordinary differential equations, computational matrix algebra, orthogonal polynomials, least square approximations, and other applications. Also listed as Computer Science 372. Prerequisites: Computer Science 104 or 108 and Mathematics 256 or 232. Not offered 2007-2008.

343 **Probability and Statistics** (4). F. Probability, probability density functions; binomial, Poisson, and normal distributions; central limit theorem, limiting distributions, sample statistics, hypothesis tests, and estimators. Prerequisite: Mathematics 231, 232, 256, or 261.

344 **Mathematical Statistics** (4). S. A continuation of Mathematics 343 including theory of estimation, hypothesis testing, nonparametric methods, regression analysis, and analysis of variance. Prerequisite: Mathematics 343.

351 **Abstract Algebra** (4). S. An Introduction to abstract algebraic systems, including groups, rings, and fields, and their applications. Prerequisite: Mathematics 361.

355 **Advanced Linear Algebra** (4). S, odd years. Vector spaces, linear transformations, eigenvalues and eigenvectors, inner product spaces, spectral theory, singular values and pseudoinverses, canonical forms, and applications. Prerequisite: Mathematics 256, or Mathematics 232, or both Mathematics 231 and 261. Not offered 2007-2008.

359 **Seminar in Secondary Teaching of Mathematics** (3). F. A course in perspectives on, principles of, and practices in the teaching of mathematics on the secondary level. This course must be taken concurrently with Education 346. The seminar provides a forum for the discussion of concerns that develop during directed teaching. This course is part of the professional education program and may not be included in the major or minor in mathematics.

361 **Real Analysis I** (4). F. The real number system, sets and cardinality, the topology of the real numbers, numerical sequences and series, real functions, continuity, differentiation, and Riemann Integration. Prerequisites: Two courses beyond Mathematics162.

362 **Real Analysis II** (4). S, even years. A continuation of Mathematics 361. Topics from sequences and series of functions, measure theory, and Lebesgue integration. Prerequisite: Mathematics 361.

365 **Complex Variables** (4). S. Complex numbers, complex functions, integration and the Cauchy integral formula, power series, residues and poles, and conformal mapping. Prerequisite: Mathematics 261 or 232.

380 **Perspectives on Modern Mathematics** (3). S, odd years. *Core: Integrative Studies*. This course explores the historical development of some of the basic concepts of modern mathematics. It includes an examination of significant issues and controversies, philosophical perspectives, and problems on which mathematicians have focused throughout history. Prerequisites: Mathematics 361, Biblical Foundations I or Theological Foundations I, DCM, and Philosophical Foundations. Not offered 2007-2008.

390 **Independent Study** (1-4). F, I, and S. Independent study of topics of interest to particular students under supervision of a member of the department staff. Open to qualified students with permission of the department chair.

391 **Colloquium** (0). F and S. Meets weekly for an hour for the presentation of various topics in Mathematics, computer science, and related disciplines by students, faculty, and visiting speakers. Prerequisites: Two 200-level courses in mathematics.

395 **Senior Thesis in Mathematics** (1-4). F, I, and S. The course requirements include an expository or research paper and an oral presentation on a selected topic in mathematics. Open to qualified students with the permission of the chair.

Medieval Studies

The interdisciplinary minor in Medieval Studies is designed to engage students in study of the European middle ages, and also prepare them for the graduate study in any of the curricula in which Medieval Studies plays a role (Medieval Studies, History, Classics, Religion, Art History, Music, modern languages, etc.) The minor may be taken in conjunction with any major. Students interested should seek faculty advice as specified below.

GROUP MINOR IN MEDIEVAL STUDIES

History 263, 3 hours
Intermediate language course, 3-4 hours
Interdisciplinary 306, 3 hours
Elective courses, to be chosen from a field of interest other than the student's current major:

History and Ideas:
Art History 232, 233, 234, 235
Music 205
Philosophy 251, 322
Religion 243, 341
History 262, 362

Literature and Language:
Latin 101, 102, 201, 202, 206, 391,
French 390
German 390
Spanish 366
English 302, 345

This minor requires a minimum of 18 regular semester hours (including a three-hour interim course), of which at least one course must be taken in History (History 263), and one course in Latin, a vernacular European language, Greek, or Arabic at the intermediate level. (Ordinarily this last requirement will be met with a course in literature, rather than conversational language study.) The remaining regular course requirements for the minor will be met by courses chosen from among those listed below to meet the interests and needs of the student. Elective courses must be chosen out of one of two fields of interest ("History and ideas", or "Literature and language"), with the understanding that this field is outside the student's current major. (For example, a history or philosophy major will choose his/her elective courses from the "literature and language" field; a Classics major would choose his/her elective courses from the "history and ideas" field).

Supervising and Advising

The group minor in Medieval Studies is administered by an interdepartmental committee. Members of the committee are F. Van Liere (History), K. Saupe (English), H. Luttikhuizen (Art), C. Stapert (Music), and M. Williams (Classics). Interested students should consult a member of the Medieval Studies Minor Committee for selection of specific courses for the minor

COURSES

IDIS 306 Introduction to Medieval Studies (3). I, offered biennially. A classroom introduction to the skills that are specific to the interdisciplinary method of studying the Middle Ages, structured around a theme such as "The Bible in the Middle Ages", or "The cult of the Virgin Mary". This course is mandatory for those students who have selected a minor in medieval studies, but it is open to anyone with an interest in the Middle Ages. The theme for Interim 2008 will be: "A History of the Book". Offered during Interim 2008.

Music

*Professors K. Brautigam, D. Fuentes, H. Kim, B. Polman (chair), *C. Sawyer, P. Shangkuan, J. Witvliet*
Associate Professors J. Navarro, D. Reimer, T. Steele
Assistant Professors T. Engle, P. Hash, B. Wolters-Fredlund
Instructor R. Nordling

The Calvin College Music Department, as a teaching and learning community, aims for the development of a Christian mind with which to understand, create, and teach music. To accomplish this, the faculty addresses itself to developing musical skills, knowledge, understanding, and discernment, to the end that the richness of musical and pedagogical practices will be shaped by a Christian perspective for lives of service. Recognizing that music is a matter for Christian stewardship, service, and critique, the Music Department is committed to preparing both music majors and non-majors as listeners, performers, composers, worship leaders, scholars, and educators to serve as agents of redemption throughout the Kingdom of God.

Within the liberal arts framework, the Music Department addresses itself to students majoring in music, to general students wishing to increase their understanding and enjoyment of music through study, and to the campus community. Students can major or minor in music, elect a fine arts program in education that includes music, fulfill a fine arts core requirement by taking one of the specified core courses, or take any course for which they are qualified. In addition, any qualified student may participate in one of the many performing ensembles or take private lessons. All students, as well as the general public, are welcome at the frequent concerts sponsored by the Music Department.

Students with any possible plans to study music as a major or minor should enroll in Music 105 as their fine arts core course, for this class provides counsel about the various programs and the individual student's qualifications for each.

Another option for students who have some musical background, yet don't want to major or minor in music is Music 204, which counts as core credit. Students with more limited musical experience may prefer Music 103, 106, 107 or 236 as their core course elective in music. Music 238 earns core credit for elementary education, recreation, and social work students. Not more than 8 semester hours of credit in applied music and drama may be applied to the minimum requirements for graduation, unless the addition is part of a designated major or minor music concentration.

The Music Department offers a variety of programs of study leading to the Bachelor of Arts degree and two programs of study that lead to the Bachelor of Music Education degree. Each of the programs builds on a common core of basic courses and requirements in music. D. Fuentes is the advisor for general, undecided students considering a major in music. P. Hash counsels undecided students considering a major in music education. All transfer students interested in a major or minor in music must consult with K. Brautigam, at or before their first registration, to receive counseling into an appropriate sequence of music courses. Such students also must validate, during their first semester at Calvin, their transfer credits in keyboard harmony and aural perception. Those not meeting the minimum standards will be required to enroll in Music 213 or 214.

PROGRAMS FOR MUSIC MAJORS

Every music major in the BA and BMuEd progrmas must take all of the "Common Music Requirements" listed below. Additional requirements are listed for each specific program.

COMMON MUSIC REQUIREMENTS

Music 105
Music 108
Music 213
Music 205
Music 206
Music 207

Music 208
Music 305
Music 308
Ensembles (four semesters)
Private lessons (four semesters)
Music 180 (four semesters)
Finally, all music majors are required to attend four concerts or recitals per semester in which they do not participate(see the Music Department website for details.)

AUDITIONS AND ENTRANCE AS A MUISC MAJOR

**Note: The Music Department does not run auditions in the Spring prior to admission to Calvin; the auditions that are help in February are for music scholarships, not to determine admissions as a music major.*

For official permission to be a music major, a student must achieve a minimum grade of "C" in Music 105, 108, 207, and 213 and pass a performance jury. In addition, all music majors must pass a keyboard proficiency test that includes playing a prepared piece, playing chord progressions from Roman numerals, harmonizing melodies, transposition, clef-reading, and score-reading. (Details about level of difficulty and recommended schedule for taking the various parts of the test can be under "Resources for Students" on the Music Department website.)

Music 108 and 213 require a pre-college level of skill in the rudiments of music, aural perception, and keyboard ability. Therefore, an assessment test will be given in the first week of Music 105. Students who are planning to major in music, but who have little or no piano background, should enroll in Music 120 (beginning piano lessons).

Finally, all music majors are required to attend four concerts or recitals per semester in which they do not participate (see the Music Department website for details.)

FOR THE BACHELOR OF ARTS IN MUSIC

GENERAL MUSIC MAJOR

In addition to the "common music requirements":
Music electives: 6 hours

MUSIC THEORY/COMPOSITION CONCENTRATION

In addition to the "common music requirements":
Music 307
Music 312
Two from Music 315, 316, 317, 318, or 319
Music 180 (four additional semesters)

APPLIED MUSIC CONCENTRATION

In addition to the "common music requirements":
Music 180 (four additional semesters)
Private lessons (four additional semesters, at the 300 level)
Ensemble (4-6 additional semesters; the following include semesters of the "common requirements")
-for voice: two semesters of 181 within an academic year; eight semesters in 101, 111, 131, 141, or 191 including every semester after declaring a music major
-for strings: eight semesters in 171 including every semester after declaring a music major
-for winds: eight semesters in 151, 161, or 171 including every semester after declaring a music major
-for organ: two semesters of 131 or 181 within an academic year; six additional semesters in any faculty directed ensemble
-for piano: six semesters in a faculty-directed ensemble, four of which must be in 101, 111, 131, 141, 151, 161, 171, or 191; one semester in 221; one semester in 222

MUSIC HISTORY CONCENTRATION

In addition to the "common music requirements":
Music 307
Music 312
Music history electives: 6 hours
Music 390
Ensemble (four additional semesters)
Music 180 (four additional semesters)

MUSIC IN WORSHIP CONCENTRATION

In addition to the "common music requirements" (in which the ensemble requirement must include at least 2 semesters of 131):

Music 235/Religion 237
Music 236
Music 237
Music 336
Music electives: 8 hours from the following:
Music 221
Music 195, 196, 197, 198
Music 238
Music 312, 315, 316, 317, 318, 319
Music 337, 338
Music 341
Music 351
Private lessons: two additional semesters

PROGRAMS FOR MUSIC MINORS

GENERAL MUSIC MINOR

(21 semester hours)
Music 105
Music 108
Music 205
Music 204
Private Lessons (4 semesters)
Music elective: One non-applied elective (3 hours)

MUSIC IN WORSHIP MINOR (19 semester hours)

Music 105
Music 108
Private Lessons (two semesters of 110 or 221)
Music 235 (see Religion 237)
Music 236
Music 237
Two additional hours from Music 110, 130, 131, 190, or 221

FOR THE BACHELOR OF MUSIC EDUCATION

The Music Education K-12 Comprehensive major programs lead to the Bachelor of Music Education degree and enable students to teach music at any level in grades K-12. The lesson and ensemble requirements given below include those given under "common music requirements" above.

MUSIC EDUCATION K–12 COMPREHENSIVE MAJOR — INSTRUMENTAL (no minor required)

Music 110, 210, 120 or 220 (two semesters or piano proficiency test)
Instrumental Ensemble (seven semesters in 151, 161, or 171)
Private Instrumental Lessons (four semesters)
Music 180 (every semester, but not during Directed Teaching)
Music 195
Music 196
Music 197
Music 198
Music 237
Music 239
Music 337
Music 339
Music 341
Music 352
Music 359
Approved Music elective (three semester hours)

MUSIC EDUCATION K–12 COMPREHENSIVE MAJOR — VOCAL (no minor required)

Music 110, 210, 120 or 220 (two semesters or piano proficiency test)
Music 130 or 230 (four semesters)
Choral Ensemble (seven semesters in 101, 111, 131, 141, or 191)
Music 180 (every semester, but not during Directed Teaching)
Music 195
Music 196
Music 197
Music 198
Music 237
Music 239
Music 338
Music 339
Music 341
Music 351
Music 359
Approved Music elective (three semester hours)

Students desiring to pursue the music education K–12 comprehensive program will be required to meet certain standards for admission. The proposed standards, a list of seven, can be found under "Resources for Students" on the Music Department website. These standards are ordinarily met by the second semester of the sophomore year. Admission to the music education program also requires that the student pass a jury exam on his or her instrument or voice ordinarily by the

second semester of the freshman year. A half recital is also required of all music education students prior to Directed Teaching. See the *Teacher Education Program Guidebook* for details about this program.

ELEMENTARY FINE ARTS GROUP MAJOR AND MINOR

All Fine Arts Group majors must complete at least 36 semester hours of courses in Art, Music, and Communication Arts and Sciences. All Fine Arts Group minors must complete at least 24 semester hours of courses in these three areas. All majors and minors must take Art Education 315; Communication Arts and Sciences 214; and Music 238. In addition, students majoring in Fine Arts must complete a sequence of courses from two of these disciplines chosen in consultation with a fine arts education advisor. Students minoring in fine arts must complete a sequence of courses from one of these disciplines and some additional electives chosen in consultation with a fine arts advisor. Fine Arts Advisors: J. VanReeuwyk, Art; R. Buursma, Communication Arts and Sciences; and P. Hash, Music.

COURSES

103 **Understanding and Enjoying Music** (3). F and S. This is an introductory course in historically-informed critical and perceptive listening to music. The relationship between musical style and culture is examined as is the forming of style by the manner in which the ingredients and elements of music are employed. Western art music is emphasized but also included are contemporary popular music and either pre-modern music or non-Western music. No previous musical training is required.

105 **Introduction to Music** (3). F. This course is a broad introduction to the art of music through the study of a wide variety of musical repertory. The course aims to teach students rudimentary technical vocabulary and stronger listening skills. The course also seeks to prompt students to think critically with a Christian mind about fundamental musical questions and issues and, in relation to those issues, to develop their understanding of selected pieces of music. Prerequisite: The ability to read music in at least one clef.

106 **American Music** (3). F. A survey course of American Music, both secular and sacred, emphasizing folk, classical and popular music from a variety of American musical traditions. These traditions include hymns, spirituals, gospel, blues, jazz, rock, hip-hop and classical music.

107 **World Music** (3) S. This is a study of select musical cultures of Asia, the Middle East, Africa, Europe and the Americas, with a focus on their various musical styles (traditional and contemporary) and the roles of music in these cultures. The course will make use of recordings and films, and requires oral presentations as well as field trips to live world music concerts. No previous musical training is required.

108 **Music Theory I** (4). S. A study of tonal harmony covering triads, inversions, non-harmonic tones, cadences, tonal theory, and dominant seventh chords. In addition to part writing and analysis, this course includes ear training, sight-singing, and keyboard harmony. Laboratory. Prerequisites: Music 105 and the interim Fundamentals of Music course or passing the Theory Assessment Test.

195 **String Methods** (2). S, even years. Class lessons on all string instruments for the instrumental music education major. Emphasis is on the methods for teaching string instruments. Elementary playing skills are developed.

196 **Brass Methods** (2). F, odd years. Class lessons on all brass instruments for the instrumental music education major. Emphasis is on the methods for teaching brass instruments. Elementary playing skills are developed.

197 **Percussion Methods** (2). F, even years. Class lessons on percussion instruments for the instrumental music education major. Emphasis is on the methods for teaching percussion instruments. Elementary playing skills are developed.

198 **Woodwind Methods** (2). S, odd years. Class lessons on all woodwind instruments for the instrumental music education major. Emphasis is on the methods for teaching woodwind instruments. Elementary playing skills are developed.

202 **Aesthetics**. See Philosophy 208 for the course description.

204 **Music History** (3). S. A survey of the stylistic development and the cultural context of Western art music from the Classical period to the present. The class will study representative works of major composers and read contemporary documents related to the composers and the contexts of their music.

205 **Music History and Analysis I** (4). F. A study, via listening, score study, and source readings, of music of Western civilization prior to 1750. After a brief introduction to world music, the course continues with study of musical thought in antiquity and the early Christian era, Gregorian chant, and the principal repertories of polyphony through the Baroque period. Prerequisites: Music 105 and 108 or permission of the instructor. Students in music major or minor programs take this course concurrently with Music 207 and 213.

206 **Music History and Analysis II** (4). S. A continuation of Music History I. This course is a study of music of Western civilization from 1750 to 1950. The course emphasizes the relationship of music to cultural and intellectual history, beginning with the impact of Enlightenment thought on music, continuing with the Romantic revolution, and concluding with the various 20th century continuations of, and reactions to, Romanticism. Prerequisites: Music 205 and 207 or permission of the instructor. To be taken concurrently with Music 208.

207 **Music Theory II** (3). F. A continuation of Music Theory I covering chromatic harmony. Prerequisites: Music 105 and 108. To be taken concurrently with Music 205 and 213.

208 **Music Theory III** (3). S. A continuation of Music Theory II covering chromatic harmony, post-tonal techniques, set theory, and serialism. This course includes analysis, part writing, and some composition. Recommended to take concurrently with Music 206. Prerequisites: Music 207 and 213.

213 **Aural Perception** (1). F. A course in the development of the ability to hear and to sing at sight the rhythmic, melodic, and harmonic elements of music. Rhythmic perception involves all note values and rests in various combinations, with an emphasis on duplet and triplet contrasts. Melodic perception involves all intervals through; also major, minor, and modal scales and melodic dictation. Harmonic perception involves triads and seventh chords in all positions in isolation and in chord progressions. To be taken concurrently with Music 207. Prerequisites: Music 105 and 108.

214 **Keyboard Proficiency** (0). S. This course provides additional training in playing chord progressions, harmonizing melodies, transposition, clef-reading, and score reading in preparation for the keyboard proficiency test. Prerequisites: Music 207 and the ability to play at an intermediate level, approaching that required for playing a Clement sonatina.

235 **Christian Worship**. See Religion 237 for the course description.

236 **Hymnology** (3). F. A historically and theologically-informed course on Christian congregational song, ranging from Old Testament psalms to contemporary praise-worship songs, from traditional Western hymnody to global worship songs, with some attention to cultural context and practical issues. Course requirements include readings, seminar presentations, reports on hymn recordings and visits to churches, as well as practical assignments. No musical prerequisites.

237 **Conducting** (2). F. A course in basic conducting, normally taken in the sophomore year. Prerequisite: Music 105 or sophomore standing with concurrent enrollment in Music 105.

238 **Music and Community** (3). * F and S. An experiential analysis of the power of music in contemporary society. Students learn how music embodies their present life style by analyzing the various roles for music in their lives - roles played both by their consciously active choices and their unconsciously passive exposure to music in the various media. This analysis becomes especially significant as the students form their own unique community through interactive music activity. Through this experience they evaluate and perhaps also adopt convictions and practices from their own communities past and present for use in the future. Meanwhile, students also develop values, perspec-

tives, and skills for leadership, especially to address social injustices through the use of interactive music. Developed originally for elementary education and music education students, this course also includes an alternate curriculum of readings designed for students majoring in other disciplines.

239 **Teaching General Music** (3) S. An introduction to current methods of teaching general music in public and private schools. Students will gain knowledge of teaching methods and materials used in classroom music including textbooks, instruments, and software. Philosophy, curriculum, and administration in relation to the general music program will be discussed. This course takes the place of Music 238 for music education majors and is an elective for elementary fine arts majors. Prerequisite: Music 105, sophomore status, and the ability to read music proficiently.

305 **Music History and Analysis III** (3). F. The course explores the issues that contemporary musicians face regarding expression and communication, focusing on the way these issues have been and are being redefined, answered in new ways, experimented with, and even dismissed since c. 1950. While the course focuses on art music, there is considerable attention given to film and popular music as well. Prerequisites: Music 206 and 208 or permission of the instructor.

307 **Music Form and Syntax** (3). F. A study of the most common ways composers set forth and work out musical ideas, including both the large-scale and local aspects of musical form. Students will make inquiry into the syntactical meaning of various musical cues and gestures and sample various means of presenting a formal analysis, using basic reductive techniques, outlines, diagrams, analogy, and oral description in their assignments, and projects. Prerequisites: Music 206 and 208.

308 **Order, Meaning, and Function** (3). * S. This course serves to integrate that which was learned in the music history and music theory sequences and to nurture Christian reflection on aesthetic and social issues in music. The first part of the course focuses on musical structure and the composer's activity of finding order in the world of sound and of the responsibility we all have as stewards of the gift of sound. The second part of the course turns attention to meaning in music, its functions in societies past and present, and questions concerning the nature and extent of its influence on people. In both parts of the course, specific pieces of music are studied in some detail. Prerequisites: Music 208 and 305.

311 **Vocal Polyphony of the Renaissance** (3). *A study of the vocal style of Palestrina. Exercises in modal counterpoint. Listening repertory of compositions. Prerequisites: Music 205 and 207. Not offered 2007-2008.

312 **Tonal Counterpoint** (3). * S. A practical study of melodic writing and counterpoint, using the instrumental works of J.S. Bach as models. Prerequisites: Music 205 and 207.

315 **Instrumentation and Arranging** (3). * F. This course addresses two technical concerns. Instrumentation covers the technical capabilities of each instrument, as well as the particular qualities which make instruments fit or unsuitable for certain situations. Arranging involves learning how to adapt music written for one medium so that it sounds good played by another. Prerequisite: Music 208.

316 **Orchestration** (3). * S. A survey of the history of the orchestra and orchestration, and problems involved in writing for orchestra, band, and small ensembles. Prerequisite: Music 315.

317 **Composition: Beginning** (3). * F and S. Conducted in seminar format, students receive instruction and comments on their composition projects. At this level, students are required to write non-tonal music. Prerequisite: Music 208 or permission of the instructor.

318 **Composition: Intermediate** (3). * F and S. Private instruction in composition. Projects include a song, and a composition for mixed ensemble. Prerequisite: Music 317.

319 **Composition: Advanced** (3). * F and S. Private instruction in composition. The main project for this course will be a string quartet, plus the analysis of a non-tonal string quartet. When time permits, students may choose additional projects. Prerequisite: Music 318.

336 **Musical Leadership in Worship** (3). S. This course is a study of the theological and musical components for the planning and

leading of Christian corporate worship, intended for those who will be serving as pastoral musicians in congregational life. A major part of the course is an internship in a local church. Pre-requisites: Music 235, 236 and 237.

337 **Instrumental Conducting** (2). *S, even years. A course in advanced conducting techniques appropriate to bands and orchestras. Prerequisites: Music 237 and proficiency on a band or orchestra instrument.

338 **Choral Conducting** (2). *S, even years. A course in advanced conducting techniques appropriate to choirs. Students will be required to conduct some rehearsals and performances of choral ensembles outside of class hours. Prerequisite: Music 237.

339 **Curriculum and Instruction in Music Education** (3). * F, odd years. Comprehensive examination of philosophy, learning theories, curriculum design, administration, and current trends in elementary and secondary music education. Topics include designing instruction for learners with special needs, assessment, professional conduct and development, classroom management, and program development. This course is required of Bachelor of Music Education majors and music education minors.

341 **Vocal-Choral Pedagogy** (3). *F, odd years. The course is designed to provide practical study in vocal-choral training and rehearsal techniques, which help to develop singing skills in the classroom and in the ensemble. Lectures, demonstrations, and discussions focus on vocal techniques, which develop healthy singing and pleasing tone quality in children, adolescents, and adults. Course work includes listening, textbook readings, written reports on field trips, and observations of off-campus choral ensembles. In addition, each student will prepare demonstrations of conducting and applying the vocal techniques required for all age levels.

351 **Choral Literature and Materials** (3). * F, odd years. A study of the philosophical, aesthetic, and practical problems involved in choosing significant and appropriate repertoire for study and performance in all levels of choral programs. Criteria for choosing quality music and pedagogical methods are examined. Emphasis is placed on independent oral and written presentations.

352 **Instrumental Literature and Materials** (3). * S, even years. A study of the practical problems and issues involved in choosing appropriate music literature for study in elementary, junior high, and high school band/orchestra programs. Attention is also devoted to other relevant issues, including (but not limited to) standards-based education, comprehensive musicianship, score study, rehearsal planning and technique, festival preparation, and program administration. Emphasis is placed on independent oral and written presentations.

353 **Diction in Singing** (3). F, even years. A study of the International Phonetic Alphabet, as well as the basic rules and guidelines for singing in the English, Italian, Latin, French, and German languages. Prerequisites: Limited to music majors or minors or by the permission of the instructor.

359 **Seminar in Music Methods** (3). S. A seminar taught in conjunction with Education 346 involving general problems of pedagogy, as well as the specific methods for teaching music in rehearsal and classrooms. The seminar provides a forum for the discussion of problems that develop during directed teaching.

390 **Independent Study**. Prerequisite: Permission of the Department Chair.

PRIVATE LESSONS

PLEASE NOTE: Music lessons are offered for varying amounts of credit. Please register for the section that fits the ability level and credit amount that is appropriate for your situation. Students who take lessons for credit are also required to enroll in MUSC 180 (Recital Hour/Studio Class). Voice, piano and organ students must do a placement audition. Contact the Music Department for information.

Private music lessons have an additional fee of $255 for 1/2 hour lessons or $510 for 1 hour lessons.

Refunds will be given for students who drop lessons following Calvin's reimbursement guidelines:

a. Calendar days 1-10	**100%**
b. Calendar days 11-24	**80%**
c. Calendar days 25-31	**60%**
d. Calendar days 32-38	**40%**
e. After 38 calendar days	**0%**

These refunds will be automatically calculated by the Financial Services office according to the date the Registrar's Office received the completed drop slip. It is the student's responsibility to turn in a drop slip to the Registrar's Office.

Last day to add lessons: Fall 2007-September 14, 5pm; Spring 2008- February 8, 5pm.

0XX **Level I** (0). F and S. Lessons for elective, non-music major study at the most basic level of technique, musicianship, and literature; for remedial study for music majors; or for students not wishing credit. An audition may be required for placement at this level. Lessons may be either class lessons or private lessons, at the discretion of the music faculty, and may be either half-hour or one-hour lessons. Jury examinations are not required. However, upon recommendation of the teacher, an exit jury examination may be taken after any semester to qualify for a higher level of study. Three to six hours of practice each week are required for half-hour lessons; nine to twelve hours of practice are required for one-hour lessons. Recitals sponsored by the Music Department are not given by students at this level of study. Studio class attendance is required. No required Recital Hour (Music 180).

010 Organ I (0).
012 Harp I (0)
020 Piano I (0).
030 Voice I (0).
042 Trumpet I (0).
043 French Horn I (0).
044 Trombone I (0).
045 Euphonium I (0).
046 Tuba I (0).
050 Percussion I (0).
062 Violin I (0).
063 Viola I (0).
064 Cello I (0).
065 String Bass I (0).
072 Flute I (0).
073 Oboe I (0).
074 Clarinet I (0).
075 Bassoon I (0).
076 Saxophone I (0).
090 Guitar I (0).

1XX **Level II** (1 or 2). F and S. Lessons for qualified students, either as an elective or a requirement. A qualifying jury examination or an audition may be required for entrance to study at this level. All qualifying students majoring in music, including those intending to concentrate in music performance, begin with this course level. Jury examinations are required after every two semesters of study at this level. Upon recommendation of the teacher, a jury examination may be taken after each semester of study. Upon recommendation of the teacher, an exit jury examination may be taken after any semester to qualify for a higher level of study. Six hours of practice each week for each hour of credit are required. Recitals sponsored by the Music Department are not given by students at this level of study. Recital Hour and Studio Class (Music 180) attendance is required

110 **Organ II** (1 or 2).
112 **Harp II** (1 or 2)
120 **Piano II** (1 or 2).
130 **Voice II** (1 or 2).
142 **Trumpet II** (1 or 2).
143 **French Horn II** (1 or 2).
144 **Trombone II** (1 or 2).
145 **Euphonium II** (1 or 2).
146 **Tuba II** (1 or 2).
150 **Percussion II** (1 or 2).
162 **Violin II** (1 or 2).
163 **Viola II** (1 or 2).
164 **Cello II** (1 or 2).
165 **String Bass II** (1 or 2).
172 **Flute II** (1 or 2).
173 **Oboe II** (1 or 2).
174 **Clarinet II** (1 or 2).
175 **Bassoon II** (1 or 2).
176 **Saxophone II** (1 or 2).

180 **Recital Hour and Studio Class** (0). F and S. Performance classes for students of applied music for the purpose of gaining experience in public performance and increasing knowledge of music literature. Attendance is required of all music majors and students registered for applied music lessons for credit. (No additional fee)

190 **Guitar II** (1 or 2).

ADVANCED STUDENTS PLEASE NOTE: The 200 and 300-level music lessons will be added only as needed. To register for 200 or 300-level music lessons, please go the Music Department for a registration form.

2XX **Level III** (1 or 2). F and S. Lessons for qualified students, either as an elective or a requirement. A qualifying jury examination or an audition is required for entrance to study at this level. Jury examinations are required after every semester of study. Required half or full recitals in the Bachelor of Music Education program are given at this level. Others, including non-music majors, wishing to qualify for playing a Music Department sponsored half or full recital also take this course. A full recital may be played only after a successful half recital. Six hours of practice each week for each hour of credit are required. Students preparing a full recital must take this course for two hours of credit for one or two semesters. Recital Hour and Studio Class attendance is required.

210 **Organ III** (1 or 2).
220 **Piano III** (1 or 2).

221 **Piano Accompanying in Worship** (1/0). Individual or class instruction in effective leadership of congregational singing from the piano. Also includes instruction in other kinds of accompanying that occurs in worship and some study of appropriate solo repertory.

222 **Piano Accompanying and Chamber Music** (1). Piano accompanying involves the study of piano-accompanied literature, plus the actual accompanying throughout the semester of two private voice students. Piano Chamber Music includes the study of literature for piano four hands, two pianos and works for the piano with other instruments. Prerequisite: permission of the instructor. (No additional fee)

230 **Voice III** (1 or 2).
242 **Trumpet III** (1 or 2).
243 **French Horn III** (1 or 2).
244 **Trombone III** (1 or 2).
245 **Euphonium III** (1 or 2).
246 **Tuba III** (1 or 2).
250 **Percussion III** (1 or 2).
262 **Violin III** (1 or 2).
263 **Viola III** (1 or 2)..
264 **Cello III** (1 or 2).
272 **Flute III** (1 or 2).
273 **Oboe III** (1 or 2).
274 **Clarinet III** (1 or 2).
275 **Bassoon III** (1 or 2).
276 **Saxophone III** (1 or 2).
290 **Guitar III** (1 or 2).

3XX **Level IV** (2 or 3). F and S. Lessons for students planning to continue to study music performance at the graduate level. A qualifying jury examination or a qualifying half recital is required for entrance to study at this level. A qualifying jury may be played only with the approval of the teacher. Required half and full recitals in applied music concentration are given at this level. Repertoire requirements and technical skills are geared toward performance of a full Bachelor of Arts concentrate recital. A Recital Hearing is required in the semester of the recital date (five weeks before the scheduled recital date). Jury examinations are required after every semester of study except at the end of the recital semester. Six hours of practice each week for each hour of credit are required. Students concentrating in performance are required to study at the 300 level for four semesters for 2-3 hours credit. Students preparing a full recital must take the course for 3 credit hours for two semesters. Recital Hour and Studio Class attendance is required.

310 **Organ IV** (2 or 3).
320 **Piano IV** (2 or 3).
330 **Voice IV** (2 or 3).
342 **Trumpet IV** (2 or 3).
343 **French Horn IV** (2 or 3).
344 **Trombone IV** (2 or 3).
345 **Euphonium IV** (2 or 3).
345 **Tuba IV** (2 or 3).
350 **Percussion IV** (2 or 3).
362 **Violin IV** (2 or 3).
363 **Viola IV** (2 or 3).
364 **Cello IV** (2 or 3).
365 **String Bass IV** (2 or 3).
372 **Flute IV** (2 or 3).
373 **Oboe IV** (2 or 3).
374 **Clarinet IV** (2 or 3).
375 **Bassoon IV** (2 or 3).
376 **Saxophone IV** (2 or 3).

ENSEMBLES

Membership in ensembles is open to Calvin students who meet the requirements of musicianship. Students may choose to take the ensemble for credit (usually listed as section A) or non-credit (usually listed as section B). Ensembles may not be audited.

101 **Men's Chorale** (.5/0). F and S. Representative works in the field of men's choral literature are studied and prepared for concert performance and worship services. Membership is open to all men from the Calvin community including students of the college and seminary, as well as members of the faculty and staff of the college and seminary and their spouses. Meets one evening per week.

111 **Lyric Singers** (1/0). F. An ensemble of treble voices devoted to singing a wide variety of literature, both sacred and secular. Emphasis is given to three- and four-part singing, voice development, and preparation for performances. Open to the general college student. First-year women who wish to sing in a choir will normally be required to sing in the Lyric Singers.

115 **Flute Choir** (0) F and S. Representative works in Flute Choir literature are studied and prepared for concert and church performances. Students have the opportunity to use Calvin's alto and bass flutes. Meets once a week and is open to students in all class levels who wish to participate.

116 **Handbell Ensemble** (.5/0) F and S. Representative works in handbell literature are studied and prepared for concert and church performances. Uses a five-octave set of Malmark handbells and three octaves of choirchimes. Meets once a week and is open to any musician who reads music well.

117**Jazz Band** (.5/0) F and S. Representative works in jazz band literature are studied and prepared for concert performance. Meets once a week and is open to students in all class levels who meet the requirements of musicianship.

118 **String Quartet** (0). F and S. Representative works in string quartet literature are studied and prepared for performance. A faculty coach meets with the ensemble weekly to provide instruction. Open to students in all class levels who wish to participate.

131 **Campus Choir** (1/0). F and S. Study and performance of choral literature related to the practice of Christian worship throughout the history of the church and in many cultures. Emphasis on vocal and musical development, as well as on the theological, historical, and liturgical dimensions of selected choral repertoire. Open to all students who meet the requirements of voice and musicianship.

141 **Capella** (1/0). F and S. Representative works in the field of choral literature are studied and prepared for concert performance. Membership is maintained at a set limit and is open only to those who meet the demands of voice, sight reading, and choral musicianship. Prerequisite: ordinarily one year of experience in a college choir.

151 **Knollcrest Band** (1/0). F and S. Representative works in the chamber wind and concert band literature are studied and prepared for concert performance. Meets three times weekly and is open to all students who wish to participate in a concert band.

161 **Calvin Band** (1/0). F and S. Representative works in the chamber wind and concert band literature are studied and prepared for concert performance. Meets four times weekly. Membership is limited to a set instrumentation and is open to all students who meet the demands of musicianship.

171 **Orchestra** (1/0). F and S. Representative works in the field of chamber and symphony orchestra literature are studied and prepared for concert performance. Open to all students via live audition who meet the demands of musicianship.

181 **Oratorio Chorus**. (.5/0) F and S. The study of representative works of the great masters of choral writing with a view to public performance with orchestra. Handel's Messiah is performed annually at Christmas time and another oratorio or other masterworks are presented in the spring. Open to all who meet the requirements of voice and musicianship.

182 **Gospel Choir**. (.5/0) F and S. Faculty directed vocal ensemble performing representative music in this particular genre and in preparation for concert appearances. Membership is open to students, faculty, staff, and

alumni. [Students must participate in this ensemble for both semesters in order to receive full credit]

191 **Women's Chorale** (1/0). F and S. A women's honor choir open to all classes devoted to singing a wide range of challenging treble literature, both sacred and secular. Membership is maintained at a set limit and is open only to those who meet the demands of voice, sight reading, and choral musicianship. This ensemble tours, presents concerts and leads worship services.

Nursing

Professors M. Molewyk Doornbos (chair), C. Feenstra
Associate Professors M. Flikkema, C. Rossman
Assistant Professors A. Ayoola, J. Baker, R. Boss-Potts, D. Bossenbroek, B. Gordon, M. Harvey, M. Larson, D. Slager, K. VanderLaan, M. Vander Wal
Adjunct G. Zandee

The Calvin College Department of Nursing, in sharing the mission of Calvin College, seeks to engage in professional nursing education that promotes lifelong Christian service. Students will be prepared to be entry-level professional nurses. The objectives of the nursing curriculum are to assist the student to acquire the knowledge, the competencies and abilities, and the commitments necessary to practice as a Christian professional nurse. The context for nursing education includes the learning community of the college as well as the health care community, the professional nursing community, and the world community in which Christian service takes place. Health promotion and health protection with individuals, families and communities will be the major focus of the program. Challenging practicum experiences will occur in a variety of settings such as communities, clinics, schools, hospitals, and rehabilitation centers. Graduates of the program will receive a BSN and be prepared to take the National Council Licensing Examination for Registered Nurses (NCLEX-RN). Satisfactory scores on the NCLEX-RN will enable a student to become a Registered Nurse (RN). The Department of Nursing is approved by the Michigan State Board of Nursing and accredited by the Commission on Collegiate Nursing Education (CCNE).

THE NURSING PROGRAM

The two-year pre-nursing curriculum requires nine courses in the natural and social sciences that provide the foundation for professional nursing. These courses include Biology 141, 205, 206, 207, Chemistry 115, Health Education 254, Psychology 151, 201, and Sociology 151. In addition, twelve to fourteen liberal arts courses are required. Foreign language may be a component of the liberal arts core. Students are required to have either two years of high school foreign language with grades of "C" or better or one year of college level foreign language. If a student needs to take a foreign language at Calvin, it should be taken during the first or second year.

The upper division nursing major is a two-year sequence normally taken in the junior and senior years. It consists of thirteen courses distributed over four semesters with 12 semester hours of course work required each semester. While students taking only nursing major courses are considered full-time during those four semesters, elective courses may also be taken during these semesters.

Those interested in nursing should indicate this at the time they begin their studies at Calvin. They will then be assigned to an academic advisor from the nursing department.

Admission Process

Application to the upper division nursing major normally occurs during the second semester of the sophomore year. Applications are due on January 31st for the class beginning the following September. Applicants who submit after the deadline will be considered on a space available basis only. Application forms are available in the Nursing Department office or on the departmental web site.

In order to apply to the nursing program, students must have:

a. at least sophomore standing (greater than or equal to 27 hours) at the application due date.
b. completed six nursing prerequisite courses at the application due date.
c. a minimum overall cumulative grade point average (GPA) of 2.5 at the application due date.
d. a minimum pre-nursing GPA (GPA acquired from the nine pre-nursing courses) of 2.5 at the application due date.
e. a minimum grade of "C" on each of the prerequisite courses at the application due date.

Students should also take note of the following policies:

a. Prerequisite natural science courses must have been completed within the last seven years.
b. Preference will be given to applicants who have completed or will complete all nine nursing prerequisite courses at Calvin College.
c. Preference will be given to applicants who have completed more than six prerequisite courses at the time of application.
d. Consideration will be given to applicants who have made repeated applications to the nursing major.
e. Applicants who submit applications after the due date will be considered on a space available basis.
f. Prerequisite courses in progress must be completed prior to the start of the upper division nursing major with a minimum grade of a "C".
g. Enrollment In the upper division nursing major is also contingent upon successful completion of a criminal background check, fingerprint check, and drug screen.

It is important to note that completion of the pre-nursing courses and achievement of the minimum criteria does not guarantee admission into the nursing major. Enrollment in the final two years is limited and thus the admission process is selective.

Transfer Students

Students who have transferred to Calvin from some other college or university will be considered Calvin students (rather than as transfer students) if they will have completed two semesters of full time academic work at Calvin by the time they start the upper division major.

Students desiring to transfer to Calvin for the upper division major, who have completed course work judged by the department to be equivalent to the nine required pre-nursing courses, will be considered for admission to the nursing program after qualified students from Calvin have been accepted into the program.

Applicants for admission, who are graduates of Calvin College, will be given equal consideration for admission with current Calvin students.

Transportation

Classroom and laboratory experiences take place on the Calvin College campus. Practicum experiences during the final two years occur at a variety of sites in the greater Grand Rapids area. Students are responsible for their own transportation to those settings. While students may be able to carpool with others for some practicum experiences, there will be occasions throughout the junior and senior years when personal transportation will be necessary.

Costs

Nursing students will be charged Calvin College tuition. In addition, a fee will be assessed for each nursing practicum course. The fee for 2007-2008 will be $900.00 per practicum course. Students normally take

one practicum course in each semester of the two-year upper division major. This additional fee is considered when financial aid awards are made.

Prior to beginning the nursing practicum courses, students will need to buy uniforms, name tags, a stethoscope, a blood pressure cuff, and complete a professional rescuer's CPR course. Additional costs will be incurred for health related items such as immunizations and titers as required by the practicum agencies.

Additional Requirement

Students will participate in a departmental program entitled Promoting All Student Success (PASS). As a component of PASS, students will take a series of standardized tests during the four semesters of the upper division nursing major. These tests are designed to prepare students to take the NCLEX-RN upon graduation. Each test must be passed at the prescribed level. In the event a student does not achieve the necessary score, she/he will be required to join the PASS remediation group. The department will issue the required "Certification of Completion" to the State Board of Nursing upon completion of all required courses and completion of all PASS program requirements.

Required Courses

**First Year*	*Semester hours*
Biology 141, 205	8
Chemistry 115	4
Psychology 151	3
Sociology 151	3
English 101	3
Foundations of Information Technology	1
Developing a Christian Mind (Interim)	3
Mathematics 143	4
Arts core	3
Physical education core	1

**Second year*	*Semester hours*
Biology 206, 207	8
Psychology 201	3
Health Education 254	3
Philosophical Foundations core	3
Literature core	3
Biblical or Theological Foundations core	3
History of the West and the World core	4
Rhetoric in Culture core	3
Physical education core	1
Interim Elective	3

*Note:
Students are required to have either two years of high school foreign language with grades of "C" or better or one year of college level foreign language. If a student needs to take a foreign language at Calvin, it should be taken during the first or second year.

Nursing Courses

Third Year	*Semester hours*
Nursing 307	4
Nursing 308	4
Nursing 309	4

Nursing 327	4
Nursing 328	4
Nursing 329	4
Electives	0-8
Interim Elective	3
Fourth Year	*Semester hours*
Nursing 357	4
Nursing 358	4
Nursing 359	4
Nursing 377	4
Nursing 379	4
Nursing 380	3
Nursing 381	1
Electives	0-8

Note:
The formal requirements for a Calvin College bachelor's degree include the following: Successful completion of 124 semester hours, completion of three interim courses of three credit hours or more, completion of the designated program of study and the designated core, and a minimum grade point average of 2.0 both overall and in the program of concentration.

COURSES

307 **Theory: Community Based and Mental Health Nursing** (4). F. In this theory course, students will explore the theoretical foundations of the discipline of nursing, basic concepts of community based nursing, and mental health promotion and protection of individuals across the lifespan in the context of their families and communities.

308 **Strategies: Community Based and Mental Health Nursing** (4). F. This course provides students with the opportunity to develop strategies for health promotion and health protection for use in community based nursing and mental health nursing. Students will develop basic competency in health assessment, communication, technical skills, nursing informatics, the nursing process, and critical thinking. Students will be introduced to basic principles of pharmacology as well as the various categories of psychotropic drugs.

309 **Practicum Community Based and Mental Health Nursing** (4). F. This practicum course provides the student with an introduction to community based nursing as well as the opportunity to implement strategies to promote and protect the mental health of persons across the lifespan. Students will assume basic roles of the professional nurse and utilize skills of assessment, communication, critical thinking, and nursing process to design and provide empirically based nursing care to individuals in a variety of acute care and community-based settings.

327 **Theory: Pregnant Women, Infants, Children, and Adolescents** (4). S. This theory course will focus on health promotion and health protection concepts for pregnant women, infants, children, and adolescents in the context of their families and communities. Topics will include primary, secondary, and tertiary health protection and health promotion from the perspective of community based care.

328 **Strategies: Pregnant Women, Infants, Children, and Adolescents** (4). S. This course provides students with opportunities to develop health promotion and health protection strategies in caring for pregnant women, infants, children, and adolescents. Students will develop knowledge and skills in health and cultural assessment, communication, nutrition, pharmacology, psychomotor activities, and nursing informatics systems related to care of pregnant women, infants, children, and adolescents.

329 **Practicum: Pregnant Women, Infants, Children, and Adolescents** (4). S. The student will utilize the nursing process to promote and protect the health of pregnant women, infants, children, and adolescents in the context of their families and commu-

nities. Students will spend six weeks with pregnant women and infants and six weeks with children and adolescents in both acute care settings and a variety of community settings. Students will have opportunities to apply knowledge of health promotion and primary, secondary, and tertiary health protection strategies. The focus of the course is on engagement in clinical decision making skills and problem solving in working with these clients.

357 **Theory: Young, Middle, and Older Adults** (4). F. This course will focus on the *concepts of* health promotion and health protection for young, middle, and older adults in the context of their families and communities. Topics will include primary, secondary, and tertiary health protection and health promotion including community based care and role development. The student will learn about partnerships with adults to actively promote health as well as protecting health during times of acute and chronic illness.

358 **Strategies: Young, Middle, and Older Adults** (4). F. This course provides the student with opportunities to develop health promotion and primary, secondary, and tertiary health protection strategies in care delivery for adults. Students will develop knowledge and skills in health and cultural assessment of adults, pharmacology, communication, nutrition, psychomotor activities, and nursing informatics systems related to care of adult clients.

359 **Practicum: Young, Middle, and Older Adults** (4). F. The student will utilize *the nursing process* to promote and protect the health of adults in the context of their families and communities. Students care for young, middle, and older adults in acute care settings and visit a variety of community settings. Students will have opportunities to apply knowledge of health promotion and primary, secondary, and tertiary health protection theory and strategies. The focus of the course is on engagement in clinical decision making skills and problem solving with adult clients.

377 **Theory: Community Focused Nursing and Leadership/Management** (4). S. This theory course is focused on health promotion/health protection for the community as client and leadership/management principles that are used by the professional nurse.

379 **Practicum: Community Focused Nursing and Leadership/Management** (4). S. This course will afford students the opportunity to partner with communities as well as interdisciplinary groups of health care providers for the purpose of promoting and protecting health. Partnerships with communities offer opportunities for the student to assist the community to develop the best health care possible for diverse cultural groups. Partnerships with interdisciplinary staff members allow for principles of management and leadership to be integrated into nursing practice.

380 **Critical Reflections** (3). S. (capstone course). This reflective course will lead the student into inquiry about the relationship between Christian faith and the discipline of nursing. It will consider how the Reformed Christian worldview informs the metaparadigm of nursing as well as current issues facing the profession.

381 **Cross Cultural Engagement with Families** (1). S. This seminar course provides students the opportunity to reflect on cross-cultural experiences in which they have been Involved. Students experience engagement with those of other cultures in various ways and here reflect on these experiences considering the role of the Reformed Christian nurse as well as the role of culture, values, and beliefs (both their own and those of others) in health promotion and health protection.

Off-Campus Programs

Calvin College provides semester-length programs for students who wish to study in the context of another culture or would benefit from a program that cannot be offered on campus. Calvin offers semester programs, directed by members of the Calvin faculty, in Britain, Hungary, China, Honduras (2), Ghana, Spain, France, New Mexico, and Washington D.C. Students may participate in non-Calvin programs, as well. However, the level of Calvin financial aid varies by the program category. See below for details.

A student's eligibility and anticipated course credits are determined by a preliminary application that must be approved prior to application to a particular program. Calvin-sponsored programs require at least sophomore standing and a minimum grade point average (GPA) of 2.5. The requirements for admission to non-Calvin programs vary, as indicated in the program descriptions below.

Grades earned in courses taught by Calvin faculty, by local instructors hired by Calvin, or by Chicago Semester staff are recorded and included in the calculation of the student's GPA. All other grades are recorded but do not become part of the GPA. Grades below "C" earned on non-Calvin programs will not be accepted for credit. Specific questions regarding credit policies should be addressed to the Office of the Registrar.

Participants in Calvin-sponsored and –endorsed programs maintain their eligibility for full Calvin financial aid. Those in Calvin-approved programs receive 50% of their Calvin financial aid. A list of endorsed and approved programs is available on the Off-Campus Programs website.

Off-campus programs not sponsored, endorsed or approved by Calvin College are available to students as independent studies; Calvin financial aid is not available.

An administrative fee of $150 is charged to students participating in any endorsed or approved program or independent study.

Further information and preliminary application forms are available in the Off-Campus Programs Office or on the department website at www.calvin.edu/academic/off-campus.

Students studying off-campus are required to carry a course load of at least 12 semester hours.

CALVIN-SPONSORED PROGRAMS

These programs have been developed by and are implemented through Calvin College. Applicants should normally have completed at least one year of college studies with a minimum cumulative GPA of 2.5. Selection of participants is normally based on the appropriateness of the study to the applicant's college program, class level, GPA, interviews and recommendations.

Semester in Britain

The Spring 2008 offering of the Semester in Britain takes place in York, a city in central England two hours from both London and Scotland. Students will be housed at York St. John University, where they may take courses in a wide variety of disciplines in addition to two courses taught by the program director. The 2008 program director is J. Smith, of the Philosophy Department.

The courses offered by the director in 2008 are as follows:

208 **Victorian Britain and Postmodern Culture**. (3) This course will explore what, intuitively, must seem like a paradoxical claim: that late 19th-century Victorian Britain has much to teach contemporary, "postmodern" culture. It will consider four key movements in Victorian Britain (the Oxford Movement in religion, the Pre-Raphaelite Brotherhood in art & literature, Christian Socialism in politics & urban affairs, and Aestheticism in art & criticism) as precursors of similar movements in postmodern thought.

312 **Studies in British Culture** (4). A topical introduction to political, historical, religious, artistic, and popular aspects of the culture of Great Britain. The course engages the culture through a combination of classroom and experiential learning. Includes speakers, field trips, excursions and tours. (Cross-Cultural Engagement Core)

Semester in China

Each fall, students in the Semester in China program study both traditional and modern China, experience life in its capital, and explore other areas of this fascinating country. Living and studying at the Capital Normal University allows students to interact with Chinese and foreign students and visit important cultural and historical sites in and around the city. The program includes a 1-week study tour to ancient capitals and other important historical sites. The program is composed of four courses. The first three are taught in sequence by program director W. TenHarmsel; the Chinese language course runs all semester and course level is determined by a placement test upon arrival. No previous knowledge of Chinese is required. The language instructors are faculty members of CNU and Chinese students serve as language tutors.

The academic components are:

203 **Traditional Chinese Civilization** (4). An introduction to Chinese civilization from its earliest times to the end of the Ming Dynasty, including its religious and philosophical underpinnings. (Global & Historical Studies Core)

204 **Modern China** (4). A study of the history of China from the 17th century through the Revolution, with emphasis on its collision with the West in the 19th century. (Global & Historical Studies Core)

210 **Emerging China** (2). An examination of the development of China from the end of the Cultural Revolution to the present day, including China's place in the global economy, population growth, religion, and other social issues. (Cross-Cultural Engagement Core)

Chinese Language (5). Level depends on placement examination at time of entrance. (Pass/fail or graded; elective or language core)

Students who have already taken History 245, 246, or 371 may, with the permission of the Director of Off-Campus Programs, substitute one course at the Beijing Center for either of the first two courses. Courses at the Beijing Center include art, literature, business, media, and government.

Semester in France

Students study in Grenoble, in southeastern France, on the campus of the Université Stendhal (Grenoble III) during the Fall semester (not offered Fall 2009). The prerequisite for all courses is French 215 and 216. The director for 2007 is G. Fetzer, of the French Department.

The academic components taught by the Calvin College program director are:

220 French Culture and Society Through the Media Arts (3). A study of current and popular French culture and society as perceived and created through various forms of literature and media art. Conducted mainly in French.

230 **Contemporary France** (2). An introduction to contemporary French culture through readings, discussions with guest speakers, and excursions. (Cross-Cultural Engagement Core)

Students take courses at the Centre universitaire d´Etudes françaises on topics such as language, stylistics, translation, literature and culture. Successful completion of the courses will result in credit for STFR 315 (Advanced Stylistics and Phonetics; 3 semester hours), STFR 316 (Advanced Language Study in France; 4 semester hours), and STFR 295 (Special Topics; 3 semester hours).

Semester in Ghana

Participants live on the campus of the University of Ghana and study at the University's Institute of African Studies. Special sessions are held occasionally at the Akrofi Christaller Institute. The 2007 program director is R. Jelks, of the History Department. All students enroll in the two courses offered by the program director, a course in the local language (Twi), and at least one course taught by staff of the Institute.

The courses offered by the program director:

243 **History of the African Diaspora** (3). A study of the African Diaspora that arose in the Western Hemisphere as a result of the transatlantic slave trade, comparing cultural and historical situations that resulted in the United States, the Caribbean, and Latin America. (Global and Historical Studies Core)

312 **The Culture and People of Ghana and West Africa** (4). A multi-disciplinary course aimed at an appreciation of the rich and diverse culture and history of the people of West Africa. Visits to sites such as slave forts, the Fante homeland, the historic city of Kumase, and the Museum of Ghana are included. (Cross-Cultural Engagement Core)

Courses offered by the staff of the Institute of African Studies:

100 **Twi Language** (2). An introductory course in the dominant local language, designed to help students communicate on a basic level with those around them. (Pass/Fail; Elective)

101 **African Drumming and Dance: Practice and Context** (1). Instruction in several traditional dances of the ethnic groups of Ghana, instruction in some patterns of traditional drumming, and lectures on the social and religious meaning of African dance, including its use in Christian worship. (PE Core Level II or III)

217 **West African Literature and Drama** (3). An introduction to oral literature and drama, including themes and trends related to colonial rule and the post-independence period. (Literature Core)

280 **Government and Development in Africa** (3). A study of patterns of political authority in Africa, including the historic kingdoms, the period of colonial rule, and the era of independence, and their effects on economic development today. (Elective)

Development Studies in Honduras

The capital of Honduras, Tegucigalpa, is the site of this program, offered each spring semester. It gives students a first-hand experience living in a less developed county as they consider or prepare for further study or careers in international development or missions. Students live with Honduran families and attend classes on the campus of La Universidad Pedagógica Nacional Francisco Morazán. Development studies classes are taught consecutively by the program director, K. VerBeek; the Spanish language courses are taught by members of the faculty of the Universidad throughout the semester. Preference for admission is given to International Development Studies students. Applicants must have at least a basic knowledge of the language, equivalent to Spanish 101. The academic components of the program are as follows:

210 **Exploring a Third World Society** (3). A study of the history, economics, and politics of Honduras as an example of a third-world country. (Global & Historical Studies Core and Cross-Cultural Engagement Core)

211 **The Problem of Poverty** (3). Analysis of development challenges encountered in Honduras, such as immigration to the North, maquilladoras, and urban overpopulation. See note under 212 regarding distribution credits.

212 **Development Theory in Practice** (3). Various perspectives on development practices from guests representing Christian and non-Christian development organizations. (The combination of 211 & 212 result in one Sociology credit and one Economics credit, and fulfills the Societal Structures core requirement.) May not be taken by students who have taken IDS 355.

SPAN XXX **Spanish Language Study** (3-6). Course choice depends on previous course work. See the chair of the Spanish Department for advice.

Spanish Studies in Honduras

Intensive language study is combined with an exploration of the issues related to living in a developing country in this advanced Spanish program for majors and minors offered in Tegucigalpa, Honduras during the last two weeks of August and the fall semester. Students live with local families, participate in organized educational excursions and attend classes on the campus of the Universidad Pedagógica Francisco Morazán. Prerequisite: Spanish 301. The 2007 program director is E. Miller, of the Spanish Department.

The required courses are as follows:

342 **Language and Culture in Honduras** (2). SS. An on-site orientation to Honduran language and culture, designed to prepare students for taking upper-level courses with Honduran instructors and introduce them to the cross-cultural issues they will encounter.

205 **Poverty and Development** (3). Analysis of development theories and major issues such as population, the environment, and globalization, and the role Christian values can play in shaping responses to them. Includes several field trips. (Global & Historical Studies Core).

315 **Engaging Honduran Culture** (1). A weekly seminar in which students compare and reflect on what they have learned from readings, interviews, and daily experiences. (Cross-Cultural Engagement Core)

Participants enroll in 8-11 semester hours of additional courses from the following:

302 **Advanced Grammar, Conversation, and Composition II** (3). A continuation of Spanish 301 and the second gateway course to the major or minor sequence. Designed to improve speaking and writing skills through vocabulary acquisition, honing of grammatical accuracy, and extensive practice in oral and written communication.

308 **Introduction to the Hispanic World** (4). This course introduces students to the major developments of the Hispanic World from antiquity to the independence of the American colonies in the early 19th century. Discussions center on the relationship of major literary and artistic works to economic, political, religious, and social developments in the Iberian Peninsula and the Castilian colonies in the Americas. This course is normally the first in a sequence of two and is designed to prepare students for advanced-level culture and literature courses. Oral presentations and research paper are required. Prerequisite: Spanish 301. (Global & Historical Studies Core)

309 **Introduction to the Hispanic World II** (4). This course introduces students to major developments of the Hispanic World from the independence of the Spanish American colonies to the present day. Discussions center on the relationship of major literary and artistic works to economic, political, religious, and social developments in Spain and Spanish America. In addition, students develop their skills in reading and evaluating literature in a second language through representative texts, and they sharpen their skills in critical writing and analysis. This course is normally the second course in a sequence of two and is designed to prepare students for advanced-level culture and literature courses. Oral presentations and research paper are required. Prerequisite: Spanish 301 and 308, or permission of the instructor. (Literature Core)

340 **Spanish Phonology and Dialectology** (3). An introduction to Spanish linguistics, concentrating on the sounds of Spanish (phonetics and phonology), with appropriate pronunciation practice and contrasts with English pronunciation. Includeed are units on the history of the Spanish language and the major dialects spoken today. Prerequisite: Spanish 301.

364 **Central American Authors** (3). An in-depth study of major Central American authors and works. The course requires the reading of several complete texts and the writing of a major research paper. Prerequisites: Spanish 329 and one survey literature course (330-333) or concurrent registration in a survey literature course.

390 **Independent Study** (3). Course taken at the Universidad Pedagógica. Prerequisite: Spanish 308, 309, and permission of the program director.

393 **Independent Ethnographic Study** (2). Placement in a local agency, school, or business to observe and/or participate in a work setting. Prerequisite: Permission of the program director.

Semester in Hungary

Calvin College offers a study program each fall semester in cooperation with three local universities in central Budapest. Karoli Gaspar Reformed University offers courses in English literature, linguistics, and comparative literature; Corvinus University (formerly the Budapest University of Economic Sciences) provides courses in economics, business, sociology, political science, and modern history; the Technological University of Budapest specializes in comparative literature and in social and environmental issues relating to the interface of technology and society. M. Page, of the CAS Department, is the director in 2007.

Required courses:

100 **Introduction to the Hungarian Language** (2). An introduction to the Hungarian language. (Pass/fail)

231 Theatre, Politics, and Culture in East-Central Europe (3). The course will focus on the intersection of theatre and political and social change in five countries: (East) Germany, Poland, the Czech Republic, Romania, and Hungary. (Arts or Literature Core)

312 **Studies in Central European Culture** (4). A topical presentation of East Central Europe—politics, religion, art, music, and science—through guest speakers, readings and study trips. (Global & Historical Studies Core)

Semester in New Mexico

This multicultural study program in New Mexico is held on the campus of Rehoboth Christian School. The goal of the Multicultural Study in New Mexico semester is to provide students with a cross-cultural learning experience by means of special-focus sections of courses from Calvin's liberal arts core and from Calvin's Teacher Education program. Teacher education students take courses from both categories; other students take liberal arts courses only. The Program Director for Fall 2007 is R. Sjoerdsma, of the Education Department.

Liberal Arts Core Courses:

151 **Introductory Geology** (4). This introductory study of the geological structures of the earth makes extensive use of the unique geological features of the Southwest. (Natural World Core)

218 **Peoples and Cultures of the Southwest** (3). The study of anthropology is used as an introduction to the greater Southwest as a major world culture area. (Societal Structures Core)

394 **Christian Community Seminar** (1). Seminar designed to help students develop cross-cultural awareness as they live and learn on the campus of Rehoboth Christian School and interact with surrounding communities such as Red Mesa, Gallup and reservation churches and communities. (Cross-Cultural Engagement Core)

Other liberal arts courses are available at the University of New Mexico Gallup campus.

Teacher Education Courses:

302 **Curriculum and Instruction for Diverse Learners** (4). Designed to help students develop an increased understanding of the complex issues surrounding learning theory and its impact on instruction in diverse educational contexts. Students will explore how an understanding of the learner, the curriculum, and the context shape instructional practice, including planning, implementation, evaluation, and reflection with a focus on meeting the needs of all learners. An extensive practicum (see below) will assist students in linking theory and practice in a classroom setting. Prerequisites: Education 102, Education 202, and Admission to the Teacher Education Program.

303 **Curriculum and Instruction: Practicum** (3). An analysis of the teaching-learning process in the classroom. Includes observation of and participation in school activities in Rehoboth and in the surrounding area, as well as laboratory experience to develop competence in the use of classroom technologies. Must be taken concurrently with Education 302. See description above.

345 **Directed Teaching: Elementary** (12). Students participate in full-time supervised practice teaching at Rehoboth Christian School and other local schools. Prerequisites: good standing in the teacher education program, passing scores on the Michigan Basic Skills Test, and appropriate recommendations.

Study in Spain

Calvin offers introductory and advanced Spanish language programs during the Interim and spring semester in Denia, Spain. Students live with Spanish families and attend classes on the campus of the local university. The 2008 program director is D. TenHuisen, of the Spanish Department.

Students in the introductory program are able to fulfill Calvin College's foreign language requirement and earn nineteen semester hours of credit by successfully completing Spanish 100 (Spanish Culture), 101, 102, 201, and 202. The language classes cover grammar, conversation, reading, and writing; the Spanish culture course provides an introduction to fundamental aspects of life in Spain. Because enrollment is limited, preference in

admission to the Core Program is given to juniors and seniors.

The prerequisite for all courses in the Advanced Program is Spanish 301.

The courses offered in 2008 are:

Core Program:

100 **Introduction to Spanish Language and Culture** (3). An introduction to the fundamental aspects of the language and culture of Spanish life - history, art, religion, politics, the family, cuisine, music, courtship and style of life in general. Particular emphasis is placed on the primary differences between Hispanic and North American cultures. Students are introduced to survival Spanish, learning the basic vocabulary and idioms necessary for communication in a Spanish-speaking community. Students are evaluated on journal entries, group presentations to the class, class participation, homework, quizzes and a final exam. (Cross-Cultural Engagement Core)

101-202 **Elementary and Intermediate Spanish** (16). See Spanish Department section for course descriptions.

Advanced Courses:

302 **Advanced Grammar, Composition, and Conversation II** (3). A continuation of Spanish 301 and the second gateway course to the major or minor sequence. Designed to improve speaking and writing skills through vocabulary acquisition, honing of grammatical accuracy, and extensive practice in oral and written communication.

312 **Contemporary Spain** (3). Taught during the Interim. An examination of the history and culture of Spanish social, political, and religious institutions through study of both literary and non-literary sources. The course also incorporates discussion of issues currently facing the Spanish people. (Cross-Cultural Engagement Core)

308 **Introduction to the Hispanic World** (4). This course introduces students to the major developments of the Hispanic World from antiquity to the independence of the American colonies in the early 19th century. Discussions center on the relationship of major literary and artistic works to economic, political, religious, and social developments in the Iberian Peninsula and the Castilian colonies in the Americas. This course is normally the first in a sequence of two and is designed to prepare students for advanced-level culture and literature courses. Oral presentations and research paper are required. Prerequisite: Spanish 301. (Global & Historical Studies Core)

309 **Introduction to the Hispanic World II** (4). This course introduces students to major developments of the Hispanic World from the independence of the Spanish American colonies to the present day. Discussions center on the relationship of major literary and artistic works to economic, political, religious, and social developments in Spain and Spanish America. In addition, students develop their skills in reading and evaluating literature in a second language through representative texts, and they sharpen their skills in critical writing and analysis. This course is normally the second course in a sequence of two and is designed to prepare students for advanced-level culture and literature courses. Oral presentations and research paper are required. Prerequisite: Spanish 301 and 308, or permission of the instructor. (Literature Core)

336 **Art History** (3). A study of the art and architecture of Spain from prehistoric times through the present. (The Arts Core)

341 **Advanced Spanish Syntax and Sociolinguistics** (3). An examination of the differences and similarities between English and Spanish morphology, syntax, and semantics, in order to improve students' communication skills and to generate a deeper understanding of the complex nature of the human language system. Prerequisite: Spanish 302 or permission of the program director.

366 **Spanish Literature from the Middle Ages to the Renaissance** (3). This course focuses on the development of Spanish literature from its inception to the Renaissance. The following genres are analyzed: epic and lyric poetry, eclogues and pre-Golden Age drama, and the sentimental, the pastoral, and the picaresque novel. Oral presentations and research papers are required. Prerequisite: permission of the program director.

393 **Independent Ethnographic Study** (2). Placement in a local agency, school or busi-

ness to observe and/or participate in a work setting. Prerequisite: permission of the Director.

Semester in Washington, D.C.

Calvin offers the Henry Semester in Washington, D.C., each spring. Participants combine an internship with academic study in order to better understand the workings of the nation's capital. To be accepted into the program, students must have either completed Political Science 101 or have the consent of the instructor. Students are required to enroll in Political Science 241, a one-hour preparatory course offered in the fall semester. The program director for 2008 is D. Koopman, of the Political Science Department.

342 **Politics as if Reality Mattered** (3). This course will be conducted in the midst of the 2008 campaign for the American presidency, when politicians' promises and skepticism about them will abound. The course will introduce students the intellectual resources from the Reformed Christian tradition and elsewhere so they can make good judgments about the limits and possibilities of politics. Economics, representative democracy, and human nature will be particular foci. Students will read historic and contemporary documents, write reflection papers on them, and write a longer paper on an area of their particular interest. Through the course, each student will develop a better sense of the possibilities and limits of politics in the real world, and what roles they may or may not wish to play in it.

343 **Integrating Faith and Public Life** (3). This course will focus on the role of religion in the public life of Washington, DC. Specifically, the course will examine how religious individuals and institutions of many faith traditions seek to affect the climate and content of policy making. The course will stress site visits to organizations that influence, study, and/or implement public policies in a variety of areas such as health, social services, security, economic development, and trade. Students will be challenged to compare and contrast the organizations where they work as interns with the institutions visited in this course, particularly in terms of organizational objectives and the role of religion in the organization's mission. May be credited as an elective or as a departmental credit when accepted by individual departments.

344 **Internship in Washington, D.C.** (8). An internship experience, normally consisting of a four-day work week in a professional setting, in the student's major field of concentration. Credit toward a departmental major is granted at the discretion of each department.

Internships for social work students are available to students approved by the Sociology and Social Work Department. See P. DeJong, Sociology and Social Work Department, for further information.

CALVIN-ENDORSED AND APPROVED PROGRAMS

These programs are offered in conjunction with other institutions, but are officially endorsed or approved by Calvin. With the exception of the Chicago Semester, all credits are transfer credits and the grades, although recorded, are not calculated in the student's GPA. However, grades must be at least a "C" for credit to be granted. Students participating in endorsed programs may receive full Calvin financial aid for the program. Those in approved programs receive 50%. See the Financial Aid Office or the Off-Campus Programs Office for a list of programs in each category. A few approved programs do not qualify for Calvin financial aid, as noted in their program descriptions.

American Studies Program

The American Studies Program in Washington, D.C., is a semester-long internship/seminar program for upper division students in most majors who are interested in having on-the-job experiences and in exploring current national and international issues with Washington professionals. The program is sponsored by the Council for Christian Colleges and Universities, of which Calvin College is a member, and is supervised by the program staff in Washington. Applicants should be juniors or seniors, should have a grade point average of 2.75 or higher, and show promise of benefiting from the internship and seminar experience.

Applicants to this program are not eligible for Calvin financial aid.

AuSable Institute of Environmental Studies

This institute, sponsored by Calvin College and other evangelical Christian colleges, offers course instruction and internships in environmental studies. In the forests of northern Michigan, on the shores of Puget Sound (Washington), in India, or in Kenya, students take courses which provide academic content, field experiences, and practical tools for stewardship of creation's resources. Students who also complete work for a bachelor's degree at a liberal arts college approved by the Institute may earn certificates as environmental analysts, land resource analysts, water resource analysts, naturalists, and stewardship ecologists.

Courses are offered during the January interim and in summer sessions. Course listings by campus are available at the AuSable website, www.ausable.org.

Course enrollment forms and financial aid applications are available from the AuSable advisor, D. Warners, of the Biology Department.

Budapest Semester(s) in Mathematics

The Budapest Semester(s) in Mathematics program offered by St. Olaf College provides the opportunity for mathematics and computer science majors in their junior or senior years to spend one or two semesters in Budapest studying under the tutelage of eminent Hungarian scholar-teachers. In addition to offerings in mathematics, courses are offered in Hungarian language, history, and culture. Students will be expected to take three or four mathematics courses and one or two intercultural courses each semester.

Early applications are encouraged; the first 25 qualified applicants will be accepted to participate in the program as their applications are completed. For additional information see http://www.stolaf.edu/depts/math/budapest or R. Pruim, of the Mathematics Department.

Central College

Central College offers an endorsed German language study program in Vienna, Austria, and an approved Dutch culture studies program in Leiden, The Netherlands. Central also offers programs in Britain, Wales, France, China, Mexico and Spain; these programs are designated as "independent study" programs for purposes of financial aid consideration. For more information, contact the Off-Campus Programs Office.

Chicago Semester

The Chicago Semester is sponsored by Calvin College together with Central, Dordt. Hope, Northwestern and Trinity Colleges and is administered by Trinity Christian College. It offers qualified juniors and seniors the opportunity to gain a semester's credit through studying and working in Chicago. Students participate in seminars at the Chicago Semester's Loop Center and spend four days a week in an internship related to their career interest and academic major. Students not in a special track (education, nursing or social work) take two of the following seminars:

Fine Arts Seminar (3). F and S. An investigation of urban cultural life as reflected in the arts of Chicago. Participants attend plays, concerts and movies, and visit art galleries and shows. These on-site experiences are supplemented by readings, lectures, and classroom discussion. (The Arts Core)

Metropolitan Seminar (3). F and S. A broad survey of the major issues in the life of the metropolitan community of Chicago. This seminar examines the economic, educational, political, and social welfare systems and the meaning of living in the urban environment.

Values and Vocations Seminar (3). F and S. An exploration of the values dimension of life: what one lives for and why. Emphasis is placed on helping students determine their personal structure of values in the light of biblical norms.

History of Religion and Society in Urban America (3). F and S. An examination of religious social engagement in urban America, especially in the 20th century. Issues treated include industrialism, immigration, race relations, gender roles and the relationship of church and state.

Field Internship (9). F and S. Students enrolled in the Chicago Semester program have a large number of placements available to them.

Students may select internships from a range of organizations, which include banks, businesses, hospitals, media, mental health clinics, churches, social agencies, public services, and civic institutions. The student interns are supervised on the job by Chicago Semester staff members.

(F and S). Student teaching opportunities are available for Elementary Education students. See M.J. Louters, Education Department, for further information. Application for either semester must be made the previous spring semester.

(S). Internships for social work students are available to students approved by the Sociology and Social Work Department. See P. De Jong, Sociology and Social Work Department, for further information. Application for either semester must be made the previous spring semester.

China Studies Program

Participants in the China Studies Program, administered by the Council for Christian Colleges and Universities, live and study for a semester on the island of Xiamen, in southeastern China.

Applicants must be juniors or seniors, have a 2.75 or higher cumulative GPA, and must receive a recommendation from the academic dean's office. For more information on this program, contact the Off-Campus Program Office.

Applicants to this program are not eligible for Calvin financial aid.

College Year in Athens

College Year in Athens offers a curriculum of university-level courses taught in English and concentrating on Ancient Greek Civilization and Modern East Mediterranean area studies. Courses in Ancient Greek and Latin, as well as modern Greek, are available at several levels. Students may study at CYA for one or both semesters of the academic year. Field trips to sites of archaeological importance are integrated into each term's offerings.

The courses most suitable as substitutions for courses in the classics major are Art and Archaeology of Greece to the Roman Period (equivalent to Classics 221); Beginning Ancient Greek (Greek 101-102); advanced reading courses in Greek authors (Greek 202-302), Advanced Latin (Latin 205-304), and the Epic Tradition and Attic Tragedy (Classics 211). In addition, other CYA courses may meet some core requirements.

For further information, contact K. Bratt, Classics Department.

Contemporary Music Center

The Contemporary Music Center is administered by the Council for Christian Colleges and Universities, of which Calvin College is a member. Program participants live together on Martha's Vineyard (Massachusetts) and follow either the Artist track or the Executive track. The Artist track is tailored to students considering careers as vocalists, musicians, song writers, recording artists, performers, producers or recording engineers. The Executive track is designed for business, arts, management and marketing, communications, and other majors interested in possible careers as artist managers or agents, recording company executives, music publishers, etc. Students explore creativity and the marketplace from a Christian perspective as they work together to create and market a recording of original music.

Students should be juniors or seniors with a GPA of 2.75 or higher and be recommended by the program advisor, W. Romanowski, Communication Arts and Sciences Department.

Creation Care Studies Program

At its two program sites (Belize and New Zealand), the CCSP offers courses dealing with ecosystems, community development, cultural anthropology and literature of the local culture. Internships (1-4 sem. hrs.) are possible. Both programs are offered in both the Fall and Spring semesters; students may not earn credit at both sites. For further information, contact K. Groenendyk, Communication Arts and Sciences Department.

Daystar University

The Daystar program is currently suspended. Students interested in direct enrollment should consult the Director of Off-Campus Programs.

Dordt Netherlandic Studies Program

This program, operated by Dordt College at the Gereformeerde Hogeshool in Zwolle, provides courses in the Dutch language (required), art, culture, and history. Philosophy and theology courses are also available by special arrangement. Offered in the spring semester only. Contact Dordt College's Director of Off-Campus Programs for more information.

Hogeschool Zeeland

Students interested in international business have the opportunity to study at the Hogeschool Zeeland, in Vlissingen, the Netherlands, for a semester. Courses are available in the International School of Business and are taught in English to a student body drawn from around the world. Topics include international management, e-commerce, economics, accounting, and business law. For further information see E. Van Der Heide, Department of Economics and Business.

Hong Kong Baptist University

The Hong Kong Baptist University offers courses in a variety of fields at its three Kowloon campuses. Students may choose from regular courses in business, humanities, communications, science, and social sciences or enroll in special courses in Mandarin or Cantonese Chinese language study or in a special sociology course designed for non-Chinese students. For more information, contact D. Bays, History Department.

International Sustainable Development Studies Institute

This program offers an opportunity for students interested in international development to spend a semester in Thailand. The program is divided into four sessions, each of which begins with the study of theory and context in Chiang-Mai, and then moves out into the field for three weeks of intensive study in the culture and ecology of Thailand. Courses include Thai Language and Society, Human Rights and the Environment, Political Ecology of Forests, and Coastal Resource Management in Southeast Asia.

Japan Center for Michigan Universities

Students may choose to spend fall semester, spring semester, or summer semester at the Japan Center for Michigan Universities in Hikone, near Kyoto. Courses are offered in both Japanese language and Japanese culture. In addition, students take two other courses related to Japan. The course offerings vary each semester, but include topics such as Japanese Economic Practices, Environmental Issues in Japan, and Japanese International Relations. Students may either live in the dormitory or stay with a Japanese family for the entire semester, or live in the dorm but stay with a Japanese family on some weekends.

See L. Herzberg, Germanic and Asian Languages Department, for further details.

Jerusalem University College

The campus of the Jerusalem University College is located on historic Mount Zion. From its campus, the students also travel to many parts of Israel and the West Bank to study biblical texts in their original settings. Students select courses from areas in Biblical Studies, Middle Eastern Studies, Archaeology, History, Geography, and Hebrew studies. For more information, contact R. Whiteketle, Religion Department.

Latin American Studies Program

Students of member colleges of the Council for Christian Colleges and Universities have the opportunity to live and learn in Latin America through the Latin American Studies Program, based in San Jose, Costa Rica. Students choose from a variety of courses in language, literature, culture, politics, history, economics, ecology and religion of the region. Four concentrations are available: Latin American Studies (both fall and spring terms); Advanced Language and Literature (limited to Spanish majors and offered both fall and spring terms); International Business and Management (fall term only); and Tropical Sciences (spring term only). For further information about Spanish program, see M. Bierling, of the Spanish Department. For all others, see the Off-Campus Programs Office. The Advanced Language and Literature track is not eligible for Calvin financial aid.

Los Angeles Film Studies Center Program

The Los Angeles Film Study Center (LAFSC)

Program, offered in both the fall and spring semesters, is administered by the Council for Christian Colleges and Universities, of which Calvin College is a member. The LAFSC is designed to train students of Council institutions to serve in various aspects of the film industry with both professional skill and Christian integrity. Students live, learn, and work in the LA area near major studios. The curriculum consists of an internship, required courses in theology and production, and electives in filmmaking, screenwriting, and producing.

Applicants must be juniors or seniors with a 2.75 or higher cumulative grade point average who provide evidence of academic, creative, and personal maturity in their application, recommendations, and interview with the LAFSC Director. Further information may be obtained from W. Romanowski, of the Communication Arts and Sciences Department.

Middle East Studies Program

Participants in the Middle East Studies Program, administered by the Council for Christian Colleges and Universities, live and study for a semester, either in the fall or spring, in Cairo, Egypt. This program allows Council students to explore and interact with the complex world of the modern Middle East. The interdisciplinary seminars give students the opportunity to explore the diverse religious, social, cultural, and political traditions of Middle Eastern people. In addition to seminars, students study the Arabic language and work as volunteers with various organizations in Cairo. Through travel to Israel, Palestine, Jordan, Syria, and Turkey, students are exposed to the diversity and dynamism of the region.

Applicants must be juniors or seniors, have a 2.75 or higher cumulative grade point average, and must receive a recommendation from the academic dean's office. For further information, consult D. Howard, History Department.

Oregon Extension Program

This program is conducted in Ashland, Oregon, during the fall semester. About thirty students become part of a small intellectual community in a rural setting. Instruction is personalized in tutorials or small groups and focuses on Christian reflection on contemporary life and thought. Students study one course in each of the following categories: Contemporary Issues, Social Thought, Human Stories, and Living Faith. All students take the course in composition and rhetoric. More than half of the academic work must be outside student's primary field of interest.

Applicants ordinarily should plan to take the program in their junior or senior year, have a grade point average of 3.0 or higher, and show promise of benefiting from tutorial and small group study and discussion. Details about the program are available from M. Halteman, Philosophy Department.

Russian Studies Program

Participants in the Russian Studies Program, administered by the Council for Christian Colleges and Universities, live and study, either in the fall or spring, in three strategic settings in Russia. After a 10-day orientation in Moscow, the program moves to Nizhni Novgorod (formerly Gorky), Russia's third largest city (12 weeks). The final 2 weeks of the semester are spent in St. Petersburg, where students live with Christian families and are involved in a service project. The academic components of the program include: Russian Language Study, History and Sociology of Religion in Russia, Russian Peoples, Culture, and Literature, Russia in Transition and International Relations and Business.

Applicants must be juniors or seniors, have a 2.75 or higher cumulative grade point average, and must receive a recommendation from an academic dean.

Scholars' Semester at Oxford

The Scholar's Semester at Oxford is a program of the Council for Christian Colleges and Universities in affiliation with Wycliffe Hall, Oxford University. The program includes a required course (Christianity and Cultures), a concentration made up of an Integrative Seminar and a Primary Tutorial within the same field of study (concentrations available in: Classics, English & Literature, Theology & Religious Studies, Philosophy, and History) and a secondary Tutorial which may either complement a student's concentration or provide an opportunity to study in a field outside his/her concentration.

Applicants must be juniors or seniors and must have a cumulative grade point average of at least 3.5. For further information, contact K. Bratt, Classics Department.

S.P.E.A.K. (Marburg, Germany)

The S.P.E.A.K. program (Sprache Praktisch Erlernen und Activ Kommunizieren) provides intensive training in German at all levels. An assessment test on arrival determines the student's course level. Classes are held daily using a variety of methodologies and include topics in German history and culture. Activities often take students into the town of Marburg or its vicinity for practical language experience and for cultural events such as theater performances and museum visits. For further information contact P. Dykstra-Pruim, of the German Department.

Washington Journalism Center

The Washington Journalism Center Program, offered in both the fall and spring semesters, is administered by the Council for Christian Colleges and Universities, of which Calvin College is a member. The Washington Journalism Center is an advanced, experiential semester on Capitol Hill that will cultivate professional news skills and encourage students to think through the implications of being a Christian working in the news media in a city that is home to the powerful and the powerless.

The curriculum consists of an internship and three related courses: Foundations for Media Involvement, News and Public Discourse, and Reporting in Washington.

Applicants must be sophomores or juniors with a 2.75 or higher cumulative grade point average.

INDEPENDENT STUDIES

Other programs appropriate to a student's major or minor concentration are available in many locations. The Off-Campus Programs Office has brochures and other materials available for browsing by students interested in exploring this option. Credit for these programs will be considered as transfer credit. Participants in independent study programs are not eligible for any Calvin financial aid but retain "outside" aid and may apply for loans. Students must complete a preliminary application prior to beginning the program application process.

Philosophy

*Professors K. Clark, R. Groenhout, L. Hardy, D. Hoekema, **G. Mellema, D. Ratzsch (chair), S. Wykstra*
*Associate Professors K. Corcoran, R. De Young, **J. Smith*
Assistant Professors D. Billings, T. Cuneo, M. Halteman, †C. Van Dyke

The department offers a major concentration appropriate for various careers, including professions such as higher education, law, the ministry, and government service.

PHILOSOPHY MAJOR

Philosophy 153
Philosophy 171 or 173
Philosophy 251
Philosophy 252
Philosophy 340 or 341
One 300-level historical course (Philosophy 312-336)
One 200 or 300-level systematic (Philosophy 201-226 or 365-390)
One 300-level systematic (Philosophy 365-390)
One elective
Philosophy 395
Double majors are not required to take Philosophy 395

PHILOSOPHY MINOR

Philosophy 153
Philosophy 171 or 173
Philosophy 251
Philosophy 252
Two electives

HONORS

Students wishing to graduate with honors in philosophy must complete six honors courses overall, including two philosophy honors courses with a grade of "B" or higher, at least one at the 300-level. They must achieve a minimum cumulative GPA of 3.3 and a minimum GPA in the philosophy major of 3.0, and they must successfully submit and present an Honors Paper.

COURSES

Elementary Courses

153 **Fundamental Questions in Philosophy** (3). F and S. An introduction to fundamental questions about God, the world, and human life and how we know about them. These questions are addressed through the study of historically significant texts, primarily from the Western philosophical tradition. An emphasis is placed on philosophical reflection and discussion, constructing and evaluating arguments, reading and interpreting philosophical texts, writing clear expository prose, and engaging in faith-oriented and faith based inquiry. The course aims to help students use philosophy to respond to central issues in human life and in contemporary society.

171 **Introduction to Logic** (3). F and S. A course in elementary deductive and inductive logic with emphasis upon the use of logic in evaluating arguments. Suitable for first-year students, not recommended for students aiming toward graduate study of philosophy.

173 **Introduction to Symbolic Logic** (3) F. A course in elementary symbolic logic, including some modal logic. This course is recommended especially for those intending to study philosophy on the graduate level. Open to qualified first-year students.

Intermediate Systematic Courses

All intermediate courses presuppose one course in Philosophy 153.

Students may take Philosophy 201-205, 207, 208, 215, 225 or 226 for core credit in Integrative Studies.

Students may take Philosophy 225 or 226 for core credit in Cross Cultural Engagement.

201 **Philosophy of Social Science** (3). *F. A study of the philosophical questions raised by methods, assumptions, and results of the human sciences, such as cultural relativism, social determinism, scientific objectivity, and religious neutrality. Attention will also be given the relationship between theology, philosophy, and social science. Students taking this course to fulfill the integrative studies requirement of the core must have the following prerequisites in addition to Philosophy 153: Two courses in the Social Sciences

202 **Law, Politics, and Legal Practice** (3). F. An investigation of such topics as the nature and types of law, sources of law, the bases of a legal system, the nature of legal and political authority, and the status of civil and human rights. Some consideration will also be given to the complex role lawyers and judges play in our society and to some of the ethical issues they may face as a result of this complexity, as well as to the ways in which a Christian perspective might affect the decisions a lawyer, judge, or citizen makes about the law and legal practice. Students taking this course to fulfill the integrative studies requirement of the core must have the following prerequisites in addition to Philosophy 153: Two courses in the Social Sciences.

203 **Understanding Natural Science: Its Nature, Status, and Limits** (3). * An investigation of the nature of science (its structure, methods, and status), and its place in human life, by looking at the historical development of science, including its interactions with other human activities, especially religion. The course will encourage students to develop their own views on major issues regarding the nature of science and its appropriate relations to worldviews and faith.

It will use history of science both to place these issues in context and to test rival pictures of what science is, how it works, and how is has been — and should be —related to Christian faith. Special emphasis will be given to the diverse ways these issues have been approached within the Reformed tradition. Students taking this course to fulfill the integrative studies requirement of the core must have the following prerequisites in addition to Philosophy 153: Two courses in the Natural Sciences. Not offered 2007-2008.

204 **God and Philosophy.** (3). S. A sustained philosophical reflection on the nature and existence of God, addressing such questions as the rationality of belief in God, the role of evidence in religious belief, the problem of evil, the suffering of God, the point of prayer, the use of gendered language about God, the fate of sincere believers in non-Christian religions, and the existence of hell. Students taking this course to fulfill the integrative studies requirement of the core must have the following prerequisites in addition to Philosophy 153: Two courses in Religion.

205 **Ethics** (3). S. This course reflects on the moral dimension of life as a whole, in its relation to what we believe, what we do, and what sorts of people we want to be. It studies basic ethical questions such as the objectivity of right and wrong, what justice is, how we ought to live, why we should try to be morally good. It considers these questions both theoretically and practically (by applying them to issues in contemporary social life, such as capital punishment or abortion). It also uses both historical sources (such as Aristotle and Kant) and contemporary sources. Finally, it considers what difference Christian faith makes to the theory and the practice of morality. There may be a service-learning component in the course, depending on the instructor. Students taking this course to fulfill the integrative studies requirement of the core must have the following prerequisites in addition to Philosophy 153: Two courses in Philosophy and/or Religion.

207 **Justice and the Common Good: Studies in Political Philosophy** (3). *A study of the historical sources and philosophical dimensions of the major debates in contemporary political thought, including an analysis of the basic terms of current political discourse — such as freedom, justice, rights, and equality — and an assessment of their role in the debates over such issues as racism, gender relations, multiculturalism, and religion in the public square. The course also explores traditions of Christian reflection on the purpose of the state, the limits of legislation, the nature of community, the requirements of justice, and the calling of the Christian citizen. Students taking this course to fulfill the integrative studies requirement of the core must have the following prerequisites in addition to Philosophy 153: Two courses in Social Sciences. Not offered 2008-2008.

208 **Philosophy of the Arts and Culture** (3). * S. A study of the nature of the arts and their role in human cultures. The course discusses the history of philosophical reflections on these topics as well as some recent theories and debates. It aims to develop a mature understanding of issues and challenges facing participants in contemporary arts and culture. Students taking this course to fulfill the integrative studies requirement of the core must have the following prerequisites in addition to Philosophy 153: Two courses in the Arts or two courses in Literature.

209 **Philosophy of Education** (3). A study of the nature, aims, and principles of education. Consideration is given to questions about the nature of the person, the acquisition of knowledge, the nature of truth, the nature of goodness, and their connection with curriculum, method, evaluation, and discipline in the classroom. Several Christian philosophers of education will be presented, and students will be led to articulate their own philosophy of education. Not offered 2007-2008.

211 **Philosophy of Gender** (3). * F. In this course students are offered the opportunity to gain a historically-grounded philosophical understanding of the concept of gender, to understand the ways in which gender concepts are formed by, and in their turn, form contemporary cultural beliefs and practices, and to consider how these issues intersect with a Reformed understanding of human life.

212 **Ethical Dimensions of Health Care** (3). S. A study of ethical issues that arise in the context of contemporary health care and related practices. Ethical issues such as abortion, euthanasia, informed consent, and

health care allocation will be examined from a perspective afforded by current philosophical debates in ethical theory.

215 **Business Ethics** (3). F. A systematic examination of ethical concepts as they relate to business conduct, designed to be of interest to all students who are concerned about justice and fairness in the marketplace. Issues such as discrimination and affirmative action, the ethics of advertising, protection of the environment, responsibilities of employees to the firm and of the firm to employees, and the rights of other stakeholder groups will be examined in the light of current debates in ethical theory. Students taking this course to fulfill the integrative studies requirement of the core must have the following prerequisites in addition to Philosophy 153: Two courses in Business/Economics.

218 **Minds, Brains, and Persons** (3). An introduction to contemporary analytic philosophy of mind. Central issues in the philosophy of mind include such topics as the relation between mental states and the brain, the nature of consciousness, questions related to the kind of thing human persons are, including careful consideration of contemporary defenses of dualism and problems related to personal identity. Not offered 2007-2008.

225 **Chinese Thought and Culture** (3). S. A study of the relationships among Chinese philosophy, art, social life, and society, examining the expressions of Chinese thought in the writings of Confucius, Laozi, Zhuangzi, and Mencius. The course also correlates Chinese thought with other aspects of Chinese culture, such as tai chi, religious practice, cuisine, calligraphy, poetry, film, painting, and family organization. This course fulfills the Global and Historical and the CCE requirements of the Core.

226. African Thought and Culture. (3). S. Philosophies and worldviews of Africa, including traditional cosmologies and moral systems, philosophical responses to the legacy of transatlantic slavery, and political ideologies of the era of African independence. The role of Christianity in African thought, and the issue of race and African identity are also examined. Sources include selected writings of philosophers and other scholars; literature, art and music; and collaborative activities with Africans residing in West Michigan. This course fulfills the Global and Historical and the CCE requirements of the Core.

Intermediate Historical Courses

All intermediate courses presuppose one course in Philosophy 153.

251 **History of Western Philosophy I** (3). F and S. A survey of the major Western philosophers and philosophical movements of the ancient and medieval periods.

252 **History of Western Philosophy II** (3). * F and S. A survey of some of the major Western philosophers and philosophical movements from the seventeenth century to the end of the nineteenth century. A continuation of Philosophy 251, which is a recommended preparation.

Advanced Historical Courses

All advanced courses presuppose two or more philosophy courses, or one philosophy course plus junior or senior standing.

312 **Plato and Aristotle** (3). *Advanced study of Plato and Aristotle. Not offered 2007-2008.

322 **Aquinas** (3). *S. An intensive study of selected texts of Thomas Aquinas.

331 **Kant** (3). A study of the *Critique of Pure Reason*. Not offered 2007-2008.

333 **Kierkegaard** (3). *F. A study of selected philosophical works of Kierkegaard, focusing primarily on his philosophy of religion.

334 **Marx and Marxism** (3). *A critical study of the thought of Karl Marx and his most important interpreters. Not offered 2007-2008.

335 **Nineteenth Century Philosophy** (3). *A study of some major figures in nineteenth century continental European philosophy. Not offered 2007-2008.

336 **Studies in Modern Philosophy** (3). A study of major European thinkers of the seventeenth and eighteenth centuries. Not offered 2007-2008.

340 **Contemporary Continental Philosophy** (3). * S. An in-depth study of major European figures in postmodern thought such as

Nietzsche, Heidegger, Foucault, Levinas, and Derrida. Prerequisite: Philosophy 252.

341 **Contemporary Anglo-American Philosophy** (3). * F. An in-depth study of some of the major figures and schools of twentieth-century Anglo-American philosophy, beginning with the birth of analytic philosophy in the works of Bertrand Russell, G.E. Moore, and Ludwig Wittgenstein. Prerequisite: Philosophy 252.

Advanced Systematic Courses

365 **Ethical Theory** (3). *F. An examination of the concepts central to moral theory, such as objectivity, moral obligation and moral responsibility, with emphasis on addressing moral skepticism.

371 **Epistemology** (3). * S. A study of problems in theory of knowledge, with special attention to how recent controversies about evidence and knowledge shed light on perplexities about the status of faith, religious belief, and knowledge of God.

375 **Philosophical Anthropology** (3). *A critical examination of major philosophical discussion of the nature of human existence, with special attention to selected topics such as gender, culture, society, mind, and body. Not offered 2007-2008.

378 **Philosophy of Language and Interpretation** (3). *A study of the nature and sources of language, and of the most prominent theories and methods of interpretation. Special attention will be given to 20th century figures in analytic philosophy, hermeneutics, and literary theory. Not offered 2007-2008.

381 Advanced Logic (3). Topics include the formalization of propositional and quantificational logic, alethic modal logic including semantic interpretations, various other modalities, alternative logics, and other formalisms of philosophical importance. Not offered 2007-2008.

383 **Metaphysics** (3). *S. A study of selected topics of metaphysics.

390 **Readings and Research**. F, I, and S. Prerequisite: Permission of chair.

395 **Philosophy Seminar** (4). * F. An advanced seminar on topics of current interest in philosophy, culminating in the preparation and presentation of a research paper. Prerequisite: Three courses in philosophy.

Graduate Courses

501 **The Educational Enterprise: A Philosophical Perspective** (3). An examination of factors presently operative in the educational enterprise from the perspective of the history of Western philosophy. Not offered 2007-2008.

590 **Independent Study**. * F, I, and S.

Physical Education and Recreation

See the Department of Health, Physical Education, Recreation, Dance, and Sport for descriptions of course offerings.

Physics

Professors S. Haan, J. Jadrich, L. Molnar, S. Steenwyk (chair), D. Van Baak, M. Walhout
Associate Professors D. Haarsma, P. Harper
Assistant Professors L. Haarsma

The Physics and Astronomy Department offers programs of concentration for students interested in careers or graduate studies in physics, astrophysics, or related disciplines, and for students interested in high school physics teaching. Students intending to major in physics are advised to enter college with four years of mathematics and to complete their 100- and 200-level courses in mathematics and physics during their first and second years. The Physical World core requirement may be met by Physics 133, 134, 212, 221, or 223. SCES 113, formerly PHYS 113, also meets the requirement. The entire science core requirement (both Physical World and Living World) may be met by the two-course sequence of Physics 133-134 or 133-235.

PHYSICS MAJOR

At least 32 semester hours, including:

Physics 133, 134, 235, 246, and 306 (or higher level substitutes)
Two or more advanced theory courses from Physics 335-376 (excluding 347 and 359)
Two or more upper-level laboratory courses from Physics or Astronomy 380-386 (Engineering 204 is allowed as a substitute for Physics 381)
Departmentally approved electives to bring the total to at least 32 hours

Cognates

Computer Science 104 or 108
Mathematics 161
Mathematics 162
Mathematics 231 is also recommended
Mathematics 232 or 261 (Mathematics 261 is recommended)

All physics majors must enroll in Physics 195 at least once and in any combination of 295 or 296 for three additional semesters.

The 32-hour major is intended primarily for students seeking a flexible program, e.g., who are also majoring in another discipline or earning an engineering degree but have an active interest in physics. The major satisfies the college's concentration requirement for graduation with a B.A. degree.

Students wanting a B.S. degree must complete a total of at least 58 semester hours of science and mathematics. Persons interested in a physics-related career who want to earn a B.S. degree based upon a physics major should complete the above minimum requirements plus at least one more upper-level theory course, Physics 395, and Mathematics 231. Students planning to pursue graduate study in physics should take all the upper-level theory courses (Physics 335, 336, 345, 346, 347, 365, 375, and 376), Physics 395, Mathematics 333, and as many as possible of Mathematics 335, 355, and 365. Students are also strongly encouraged to participate in summer research.

Students interested in a career in astronomy or astrophysics should major in Physics, minor in Astronomy, and plan their programs with D. Haarsma or L. Molnar.

PHYSICS MINOR

At least 20 semester hours of physics, including:

Physics 133
Physics 134
Physics 195
Physics 235
Physics 246
Physics 306 and 295 or the combination of Physics 296 and 335

SECONDARY EDUCATION MAJOR IN PHYSICS

At least 30 semester hours including:

Same as the standard B.A. physics major, with the following exceptions:
The two required upper-level theory courses must be PHYS 335 and PHYS 345
Only one upper-level experimental module, Physics 384, is required.

Cognates required for the secondary education major in physics:

Mathematics 161, 162 and 261
SCES 214 and 314 (science education studies)
PHYS 359 (SCES 359)

SECONDARY EDUCATION PHYSICS MINOR:

The secondary education physics minor is the same as the standard physics minor, except that Physics 306 and either Physics 295 or 296 are required. SCES 214 and 314 are required cognates.

OPTICS MINOR

At least 21 hours, including:
Physics 133
Physics 235
Physics 246
Physics 345 or Engineering 302
Physics 346
Physics 386

Students pursuing a Physics Major and Optics Minor must follow college guidelines for overlap between a major and a minor; this is facilitated by the option in the Physics Major of substituting upper-level courses for introductory ones.

HONORS

The requirements for graduation with honors in physics are:

1. Minimum cumulative GPA of 3.3 and total of six honors courses (18 hours minimum) overall, including two honors courses outside the major;
2. At least three honors courses (of 3 or more semester hours each) in physics or astronomy; at least one of the three must be an advanced theory course from 335-376, excluding 347 and 359;
3. Cumulative GPA of at least 3.3 in physics, astronomy, and mathematics collectively;
4. Completion of an approved physics major, with at least 40 semester hours of physics or the secondary education physics major;
5. Regular participation in the departmental seminar program; and
6. Successful completion of a departmentally approved research project in physics or astronomy (typically through summer research) and Physics or Astronomy 395.

To obtain honors credit in any physics or astronomy course, a student can make a contract with the course instructor regarding a special project. Alternatively, a student in an Introductory level physics course up through Physics 235 or in a 100 - 200 level astronomy course may earn honors in that course by concurrently taking the seminar course, Physics 195, and completing its requirements. A student must earn a grade of "B" or better in a course to receive honors designation for that course.

ELEMENTARY AND SECONDARY INTEGRATED SCIENCE STUDIES MINOR AND MAJOR

Students in the Elementary or Secondary Education Program wishing to major or minor in science should consult the Science Education Studies section of the catalog.

PHYSICS/COMPUTER SCIENCE GROUP MAJOR

Physics 133
Physics 134
Physics 235
Physics 381
Computer Science 108
Computer Science 112
Computer Science 214
One from Computer Science 212, Engineering 220, or an upper division computer-science elective
Physics or Computer Science electives (to provide a minimum of 24 semester hours in either physics or computer science)

Cognates
Mathematics 161
Mathematics 162
Mathematics 231 or 256
Mathematics 261 or 232

COURSES

Introductory Courses

133 **Introductory Physics: Mechanics and Gravity** (4). F and S. An introduction to classical Newtonian mechanics applied to linear and rotational motion; a study of energy and momentum and their associated conservation laws; introductions to oscillations and to gravitation. Attention is given throughout to the assumptions and methodologies of the

physical sciences. Laboratory. Prerequisite: Concurrent registration in Mathematics 162. Students currently enrolled in Mathematics 161 may enroll in Physics 133 with permission of the instructor.

134 **Matter, Space, and Energy** (4). S. Theories of the fundamental character of matter, interactions, and space, including historical perspectives. Observational astronomy, Greek science, and the five essences. The Copernican revolution and the Newtonian synthesis. Gravity and force at a distance. The atomic model of matter, including the states of matter. Introductory thermodynamics and the arrow of time. Blackbody radiation and energy quantization. Electromagnetic and nuclear forces. Radioactivity, nuclear processes, and the weak force. E=mc2. Quarks, gluons, and the Standard Model. Relativity and Spacetime. Modern Cosmology. Perspectives on the character of scientific inquiry, models, and humans' quest for understanding. Laboratory. Prerequisite: Mathematics 132, 161, or permission of the instructor.

195 **Physics and Astronomy Student Seminar** (0). F and S. This course gives students a broad overview of the fields of physics and astronomy through guest lectures by active researchers, focused readings and discussions of Science, Technology, and Society issues, and presentations by students enrolled in Physics 295 & 296. A student may earn honors credit in an approved introductory physics course by completing a paper and, at the instructor's option, a class presentation on an approved topic. This course may be taken multiple times.

212 **Inquiry-Based Physics** (4). * F. This course provides a hands-on study of important concepts in physics. The course is designed specifically to meet the needs of teacher-education students who wish to be elementary- or middle-school science specialists, but is open to other students who satisfy the prerequisites. Topics covered include mechanics (energy, force, friction, work, torque, momentum, and simple machines), pressure, waves, sound, light, resonance, electricity, magnetism, and radioactivity. Reflections on the nature of physical science and the physical world are included; connections to everyday experience and to technology are discussed. Prerequisite: SCES 112 or high-school physics.

221 **General Physics** (4). F. This course is designed for those who do not intend to do further work in physics. Topics covered in the two-semester sequence (Physics 221-222) include Newtonian mechanics, fluids, waves, thermodynamics, electricity, magnetism, light, optics, atomic physics, and nuclear radiation. Attention is given throughout to quantitative analysis, empirical methods, experimental uncertainties, perspectives on the assumptions and methodologies of the physical sciences, and the use of physics in the life sciences. Laboratory. Prerequisites: High-school algebra and trigonometry.

222 **General Physics** (4). S. A continuation of Physics 221, which is a prerequisite. Laboratory.

223 **Physics for the Health Sciences** (4). F. An introduction to those topics in physics that are applicable to a variety of health science fields, with special emphasis on understanding various physical aspects of the human body. Topics include basic laboratory techniques and instruments for physical measurements, data analysis, basic mechanics, fluids, heat, electrical circuits, sound, optics, radioactivity and x-rays, a discussion of the nature of physical science, and a Christian approach to science. Laboratory. Prerequisites: High school geometry and algebra. Not open to those who have taken or plan to take Physics 221.

235 **Introductory Physics: Electricity and Magnetism** (4). F. A study of electric and magnetic forces, fields, and energy, and of the integral form of Maxwell's equations, which describe these fields; electric circuits. Laboratory. Prerequisites: Physics 133 and Mathematics 162. Students who took Mathematics 162 prior to Fall 2002 have the additional prerequisite of concurrent registration or completion of Mathematics 261 or 232.

246 **Waves, Optics, and Optical Technology** (4). S. Introduction to the basic properties of waves and light, with applications to optical technology. Development of wave and particle models for light. Interactions between light and matter. Reflection, refraction, interference, and diffraction. Devices and ap-

plications, including lasers and other light sources, detectors, lenses, thin films, gratings, interferometers, polarizers, phase retarders, fiber optics, nonlinear crystals, and electro-optical technologies. Laboratory. Prerequisites: Physics 235 or Physics 222 and Mathematics 162.

295 **Seminar in Physics, Technology and Society** (0). F and S. This course gives students a broad overview of the fields of physics and astronomy through guest lectures by active researchers, focused readings and discussions of Science, Technology, and Society issues, and student presentations. Each student is required to make a presentation on an approved topic. Meets concurrently with Physics 195. Prerequisite: Physics 235 and at least one semester of Physics 195. This course may be taken multiple times. Concurrent enrollment in 296 is not allowed.

296 **Studies in Physics, Technology and Society** (1). F and S. This course is identical to Physics 295, except that each student must pursue an instructor-approved project that will produce an in-depth paper as well as an oral presentation. Prerequisite: Physics 235 and at least one semester of Physics 195. This course may be taken multiple times. Concurrent enrollment in 295 is not allowed.

Advanced Theory Courses

306 Introduction to Quantum Physics (4). * S. An introduction to non-classical phenomena and their explanation in quantum mechanics. Wave-particle duality of matter and light; the Heisenberg uncertainty principle; Schroedinger's wave mechanics; spin; quantum mechanical treatment of atoms; introduction to statistical mechanics; the quantum mechanical description of solids; introduction to nuclear physics. Prerequisites: Physics 134 or 235, and Mathematics 162.

335 **Classical Mechanics** (3). * F, alternate years. The motion of particles and systems in Newtonian terms, covering the assumptions, goals, and methods of Newtonian mechanics, and describing some of its notable successes. Areas of coverage include systems of particles, conservation laws, harmonic motion, central-force motion, rotational motion, and motion in non-inertial reference frames. The status of Newtonian determinism and the question of predictability are also addressed. Prerequisites: Mathematics 162 and at least concurrent enrollment in Physics 235. Mathematics 261 or 232 is recommended.

336 **Classical Mechanics II** (3). * S, alternate years. Continuation of Physics 335, which is a prerequisite. Coupled oscillators, moment of inertia tensors and extended bodies in rotation. Lagrangian mechanics, the principle of least action, and the Hamiltonian formulation of mechanics. Non-linear systems and chaotic motion.

345 **Electromagnetism** (4). * F, alternate years. The basic equations of electromagnetism are developed and applied to simple charge and current distributions. Further applications are made to electromagnetic energy and electromagnetic properties of matter. Prerequisite: Physics 235 and Mathematics 261 or 232. Mathematics 231 is also recommended. Not offered 2007-2008.

346 **Advanced Optics** (3). * S, alternate years. The systematic application of Maxwell's Equations to electromagnetic radiation, including the interaction of light with matter, electromagnetic wave propagation, polarization, interference and diffraction. Includes a study of technologically significant systems such as waveguides, optical filters and fibers, laser cavities, and some electro-optical technologies. Prerequisites: Physics 246 and Physics 345 or Engineering 302. Not offered 2007-2008.

347 **Relativistic Electrodynamics** (1). * S, alternate years. Special relativity is reformulated in terms of 4-vectors and this new understanding is used to explicitly articulate the relativistic nature of Maxwell's equations. An introductory understanding of special relativity is assumed. Prerequisites: Physics 134 and concurrent registration in Physics 346. Not offered 2007-2008.

359 **Seminar in Secondary Teaching of Physics** (3). S. A course in perspectives on, principles of, and practices in the teaching of physics and the other natural sciences at the secondary level. Included are teaching strategies, curriculum studies, readings regarding new developments in science education, and considerations of educational uses of statistics and computers. This course should be taken concurrently with Education 346, and

provides a forum for the discussion of concerns that develop during directed teaching. This course is part of the professional education program and may not be included in the major or minor in physics.

365 **Thermodynamics and Statistical Mechanics** (4). * F. alternate years. Equations of state, heat capacities, and the laws of thermodynamics. The thermodynamic potentials. Application to some simple systems and changes of phase. Kinetic theory. Statistical mechanics with emphasis on the canonical ensemble. Determination of entropy and the thermodynamic potentials with application to solids and gases. Introduction to quantum statistical mechanics. Prerequisite: Mathematics 231, Physics 306, and either Physics 134 or Engineering 209. Not offered 2007-2008.

375 **Quantum Mechanics** (3). * F, alternate years. The main emphasis is on wave mechanics and its application to atoms and molecules. One-electron atoms are discussed in detail. Additional topics discussed are electronic spin and atomic spectra and structure. Nuclei, the solid state, and fundamental particles are also considered. Prerequisite: Physics 306 and Mathematics 231. (Concurrent registration in Mathematics 231 is allowed with permission of the Instructor.) A course including linear algebra Is recommended.

376 **Quantum Mechanics** (3). * S, alternate years. A continuation of Physics 375, which is a prerequisite.

390 **Independent Study in Physics**. F, I, and S. Independent readings and research in physics under the supervision of a member of the departmental staff. Prerequisite: permission of the chair and supervising professor.

Laboratory Courses

380 **Great Experiments in Physics** (2). * F, alternate years. Students recreate several historic experiments that originally led to the development or confirmation of physical theories related to quantum mechanics, nuclear physics, wave-particle duality, relativity, and gravity. Prerequisite: Physics 306.

381 **Electronic Instrumentation** (2). F, alternate years. An introduction to electronic circuits and devices and to their use in scientific measurements. Topics include a review of DC and AC circuits, introductions to diode and transistor characteristics, operational amplifiers, digital logic, and the use of specialized instruments in laboratory measurements. Prerequisite: Physics 235 or permission of the instructor. *Not offered 2007-2008.*

384 **Laboratory Investigations in Physics** (2). * S, alternate years. A laboratory-based course in which students choose and complete investigative projects under the supervision of the instructor. The projects are relatively open-ended, with students being responsible for learning background information regarding their topics and becoming familiar with relevant equipment, then designing and conducting open-ended investigations, interpreting their results, and presenting their conclusions. Prerequisite: concurrent registration in Physics 306. Students may concurrently enroll in Physics 395 and use Physics 384 and 395 as a single package.

386 **Advanced Optics Laboratory** (2). * S, alternate years. This course builds upon the conceptual and laboratory skills developed in Physics 246 by giving students the opportunity to investigate optical phenomena and applications using advanced instrumentation. Each student selects from a list of several multi-week projects in the fields of laser technology, spectroscopy, interferometry, electro-optical devices, non-linear optics, and quantum optics. Prerequisite: Physics 246. Not offered 2007-2008.

395 **Physics Research, Writing, and Presentation** (0-3). * F, I, and S. Completion of an approved experimental or theoretical research with presentation of results. The research may be done entirely as part of this course or through another avenue (e.g., summer research with a faculty member or Physics 384). Normally, each student is required to submit a formal, written report and to present results in a department seminar and/or poster presentation. This course may be repeated twice. Prerequisites: A faculty sponsor and approval of the department.

Graduate Courses

590 **Independent Study**. F, I, and S.

Political Science

Professors D. Koopman, J. Penning (chair), C. Smidt, W. Stevenson
*Associate Professors S. Goi, **A. Patterson*
Assistant Professor J. Westra
Instructor S. Rogers

The department offers a variety of courses in the areas of American politics, international relations, comparative politics, research methods and political theory. Students may major in political science or international relations. Those who major in political science may also follow a program of concentration in public administration.

POLITICAL SCIENCE MAJOR:

33 semester hours
Political Science 101
Political Science 207
Political Science 240
Political Science 251
One from Political Science 102, 271, 275, 276, 277, or 279
Eighteen additional semester hours from the department, which may include one interim course

POLITICAL SCIENCE MAJOR: PUBLIC ADMINISTRATION CONCENTRATION (33 semester hours plus four approved cognate courses)

Political Science 101
Political Science 202
Political Science 207
Political Science 209
Political Science 212
Political Science 240
Political Science 251
One from Political Science 102, 271, 275, 276, 277, or 279
One from Political Science 208, 310, 314, 317, or 318
One internship in either State/Local Government or Washington, D.C. (minimum 6 hours)
One Political Science elective (if needed to fulfill 33 hr. major requirement)
Four approved cognate courses in Business/Economics (Recommended: Business 160, 203, 204, Economics 151, 221, 222, or 339)

POLITICAL SCIENCE MINOR:

21 semester hours
One from Political Science 101, 202, 208, 209, 212, 310, 314, 317, or 318
One from Political Science 102, 207, 271, 275, 276, 277, 279, 308, or 309
One from Political Science 110, 240, 306, 312, or 320
Twelve additional semester hours from the department, which may include one interim course

INTERNATIONAL RELATIONS MAJOR:

34 semester hours plus nine approved cognate hours
Political Science 207
Political Science 319
Political Science 272 or 309
Political Science 251 or completion of a foreign language course beyond the 202-level
Political Science 101, 208, 212, 310, or 314
Political Science 240, 306, 312, or 320
Economics 221
Four of the following courses, at least one from each category:
Political Science 285*, 307, 308, 309, 328, 399**
Political Science 102, 271, 272, 275, 276, 277, 279, 399**

*285 (Model United Nations) may not count as the only course in its category.
**399 (The Christian Faith and Public Life) may count in either comparative Politics or International Politics, depending on the substance of the semester project. It may not count as the only course in its category.

Three courses from a list of approved cognates (see the department website for a complete IR cognate list: http://www.calvin.edu/academic/pols/) OR completion of an approved off-campus semester program

INTERNATIONAL RELATIONS MINOR
21 semester hours

Political Science 207
Political Science 272, 309, or 319
Two from Political Science 102, 271, 272, 275, 276, 277, 279, 307, 308, 309, 319, or 328
Political Science 101, 208, 240, 310, 312, or 314
Six additional semester hours within the department, which may include the Semester in Washington, D.C., program

SECONDARY EDUCATION POLITICAL SCIENCE MINOR

Political Science 101
Political Science 202
Political Science 207
Political Science 251
One from Political Science 102, 275, 276, 277, or 279
One advisor approved elective
One interim or advisor approved elective

ELEMENTARY SOCIAL STUDIES GROUP MAJOR

Students must take two specified courses from each of the following four disciplines: Economics, Geography, History, and Political Science. (Specific course choices are listed in the *Teacher Education Program Guidebook*). In addition, students must complete a sequence of courses from one of these disciplines chosen in consultation with a social studies education advisor. Advisors: D. Miller, D. Howard, and R. Schoone-Jongen History Department.

ELEMENTARY SOCIAL STUDIES GROUP MINOR

Economics 221
Economics 222
Geography 110
One course from Geography 210, 230, 310, or 320
History 151 or 152
History 229
Political Science 101
Political Science 202

INTERNSHIPS

Political Science and International Relations majors are encouraged to enroll in internship programs and a variety of off-campus interims in the U.S. and abroad. The department offers a 8 semester hour credit Internship in State or Local Government, Political Science 380. Interested students should contact J. Penning. The department offers a spring semester internship and program in Washington, D.C. Interested students should contact C. Smidt. While students may earn more than 8 semester hours of internship credits, only 8 semester hours may be applied toward the major. Additional internship credits may be taken as electives and applied toward the required total credits for graduation.

HONORS

To graduate with honors in political science or international relations, a student must: (1) complete at least six honors courses overall, with a minimum of four honors courses in the major (2) attain a minimum G.P.A. of 3.5 in each honors course as well as a minimum G.P.A. of 3.5 both overall and in the major and (3) complete a senior honors thesis, normally in conjunction with Political Science 399.

To be admitted to the major program in either political science or international relations, a student must have completed Political Science 101, 102, 110, or 207 with a minimum grade of "C" (2.0). Canadian students should consider taking Political Science 102 and prospective Canadian elementary teachers either Political Science 101 or 102.

COURSES

101 **American Politics** (3). F and S. This course examines American national government and politics, focusing on 1) the constitutional formation and structures of the U.S. political system, 2) the processes by which institutions and groups formulate and implement public policy, 3) individual, group, and institutional behavior in the policy-making process, and 4) methods of evaluating the American political system in comparison with its stated goals.

102 **Canadian Politics** (3). This course examines Canadian national government and politics, focusing on 1) the development of the Canadian state and constitution, 2) the ongoing issue of French and English Canada, 3) the processes by which institutions and groups

formulate and implement public policy, 4) individual, group, and institutional behavior in the policy-making process, and 5) methods of evaluating the Canadian political system. Not offered 2007-2008.

110 **Persons in Political Community** (3). F and S. This course examines how different conceptions of identity relate to different understandings of political community, and therefore, to the question of who and what a citizen is. The students analyze a variety of conceptions of citizenship, drawn from a range of philosophical traditions and empirical models. They then explore how a Reformed understanding of citizenship affects the way we think of ourselves as members of different political communities.

202 **American State and Local Politics** (3). F. A comparative study of American politics at the state and local levels. Attention is given to the historical development of state and local governments, their structural characteristics, and policy-making in important areas such as education, social welfare, land-use, criminal justice, and transportation.

207 **Introduction to International Relations** (3). F and S. This course explores different theoretical approaches to the study of international politics. Students are introduced to a variety of explanatory frameworks for phenomena such as nationalism, neo-colonialism, war, world hunger, economic inequalities, environmental degradation, and international trade.

208 **Urban Politics** (3). This course examines urban politics in the United States, giving attention to the historical development of urban government in America, power and politics in contemporary American cities, race and ethnicity in the city, the politics of urban planning and land use, and metropolitan reform. Not offered 2007-2008.

209 **Public Administration** (3). *S. An introduction to public administration, focusing on political management (political environment, intergovernmental relations, administrative ethics), program management (planning, decision-making, organizing, leading, implementing) and resources management (personnel management, budgeting, information management). The course examines the politics of public agencies and non-profit organizations.

212 **American Public Policy** (3). S. American public policy is studied, focusing on 1) the ways in which social, economic, and political institutions influence policy formation, 2) methods of evaluating public policy, and 3) the historical development and current content of American public policy in key areas such as defense, social welfare, criminal justice, and education.

240 **Political Ideas in Historical Perspective** (3). F and S. An introduction to the history of political thought. By examining such concepts as freedom, authority, and justice, as they are understood by representative modern and pre-modern political thinkers, the course attempts to uncover the major strands of historical development in Western political thinking.

STDC 241 **Study in Washington, D.C.** (1). F. An orientation and preparation course for the semester study program in Washington, D.C.

251 **Methods in Political Analysis** (3). S. A study of the philosophical assumptions, theoretical issues, methodological approaches, and the analytical tools used in analyzing American, comparative, and international politics. Not recommended for first-year students.

271 **Religion and Politics in Comparative Perspective** (3). This course examines religion as an agent of political mobilization and change across different cultural contexts in terms of its historical development, cultural manifestation, and its effects on the political system. Attention is given to such topics as the Christian Right movement in the United States, the Liberation Theology movement in Latin America, the Islamic fundamentalist movement in the Middle East, and the role of ultra orthodox Jews in contemporary Israeli politics. Not offered 2007-2008.

272 **The Global Resurgence of Democracy** (3). F. This course is designed to examine the factors that have contributed to and hindered the recent emergence of democratic governance in Southern Europe, Latin America, Eastern Europe, Russia, and Africa.

275 **European Politics** (3). S. A study of the government and politics of Great Britain, France, and Germany. Attention is given to historical development, current political structures, and movements toward economic and political union.

276 **Latin American Politics** (3). F. A study of modern Latin American politics with special emphasis on how different types of political regimes address the challenge of economic development.

277 **Asian Politics** (3). S. This course is a study of the political systems and political developments in east and southeast Asia with particular emphasis on China and Japan. The course begins with China and includes a brief overview of major historical events in China with particular attention to the Maoist communist era followed by an examination of contemporary political, economic, and foreign policy issues. The course then focuses on Japan, presenting a brief historical overview followed by a study of post-World War II political and economic developments that contributed to Japan's recovery. Current economic and political problems are analyzed, as is the prospect for a greater Japanese international role. The course concludes with a study of three or four southeast Asian states such as the Philippines, Indonesia, Thailand, and Vietnam.

279 **African Politics** (3). *This course is a study of the politics and governments of the African states, with emphasis on typical issues and problems facing ex-colonial, developing states in the post-Cold War era. In particular, the course examines how the main goals of political and economic development—stability, democracy, growth, and equity—are interrelated and why some states, e.g., Mauritania, make better progress towards these goals than do others. Some of the more specific challenges and issues studied are military rule, corruption, ethnic and religious strife, poverty, population growth, environmental threats, human rights (including women's rights), and the AIDS pandemic. Not offered 2007-2008.

285 **Model U.N.** (2). F. Preparation for participation in a national level Model U.N. conference. Students research international issues and country positions and study international diplomacy and negotiation techniques. Course fees for the conference are approximately $100. May be taken a second time for 1 hour of credit.

295 **Tocqueville's Prophecies: American Democracy in a New Century.** (3). F. This course consists of a careful study of the classic and prophetic 19th Century work on American democracy by Alexis de Tocqueville: his Democracy in America. Its primary aim is to consider and evaluate the increasing American emphasis on the progressive development of "democratic" political institutions and impulses in both domestic and international affairs in light of Tocqueville's many insights and cautions.

306 **History of Modern Political Thought** (3). *Representative political theorists from the sixteenth through the nineteenth century. Not offered 2007-2008.

307 **Terrorism and International Security** (3). F. This course explores the origins, motivations, and methods of political terrorism as well as possible responses to it. Questions to be addressed include: What is political terrorism? How is it like or unlike war, crime, or revolution? What factors—economic, political, religious, or ideological—feed terrorism? What methods—old and new—do or could terrorists employ? Could the ends of terrorists ever justify their means? How should nations generally, and the United States more specifically, respond to terrorism and its underlying causes?

308 **Principles of American Foreign Policy** (3). *F. An analytical view of American foreign policy; its domestic sources; the process of formulating policy; the instruments of American diplomacy; the nature of U.S. relations with hostile powers, allies, emerging nations, and the United Nations; and the limitations and potential of American foreign policy.

309 **International Organizations and Law** (3). *S. An examination of universal and regional international organizations and international law; their function and processes, their limits and possibilities, and their relationship to the international system. Special emphasis is given to the United Nations system.

310 **Constitutional Law and Judicial Process** (3). S. A comprehensive study of the role of the courts in the American political system, focusing on the Supreme Court's role in constitutional interpretation.

312 **Men, Women, and Politics: Domestic and International Issues** (3). This course explores how ideas about men and women affect the way public policy and legislation is made. Issues concerning the differences and relationships between men and women, such as marriage and employment will be considered. An effort will be made to develop a Christian perspective on whether men and women have the same, equivalent, or radically different rights and responsibilities. The course includes case studies of recent legislation and court opinions and offers comparisons between the U.S. and other states. Not offered 2007-2008.

314 **The President and Congress** (3). *An analysis of the powers and processes of these two institutions of American government and the changing relationship between them. Not offered 2007-2008.

317 **Parties and Elections** (3). *An analysis of the nature and importance of political parties and elections to American politics. Topics included are party development, party organization, political campaigns, electoral laws, public opinion, voting behavior, and election reforms. Attention is also given to other mediating institutions such as the media which compete with political parties. In election years, students enrolled in the course are encouraged to participate in the political campaign of the party or candidate of their choice. Not offered 2007-2008.

318 **American Politics and Mass Media** (3). *A survey of the relationship between American politics and the mass communications media. The course covers the way the federal government, through its regulations and its dissemination of information, affects the operations of the media, and how the media influence the social and political values of Americans and the functioning of the political system. Also listed as Communication Arts and Sciences 318. Not offered 2007-2008.

319 **International Political Economy** (3). S. An introduction to the subfield of international relations called international political economy, this course examines how competing political philosophies and ideologies explain different economic practices of states; how political forces and institutions affect the operation of international markets; and how global economic institutions operate. Through particular case studies, the course investigates the political controversies that surround the actions of central global economic institutions as well as the domestic political issues that result from international economic forces. Prerequisite: POLS 207. Recommended: ECON 222.

320 **Contemporary Political Thought** (3). *A study of representative contemporary political theorists, considering their points of emphasis and their fundamental assumptions regarding politics and political reality. Not offered 2007-2008.

328 **The Global Politics of Human Rights** (3). S. This course examines the emergence and institutionalization of human rights in the international arena during the 20th century. It begins with a careful analysis of the idea of human rights and then examines the place of this idea in particular areas of concern, such as race, gender, religion, and the meeting of basic material needs. It raises as well questions regarding the assertion and defense of human rights, by examining issues such as genocide, displaced persons, humanitarian intervention, and the proper role of international organizations.

380 **Internship in State or Local Government** (4-8). These internships, which require students to apply the tools of political science in state or local government settings, involve sixteen hours of work a week under the direction of an agency supervisor and Calvin instructor. Students apply for spring internships by contacting the Calvin Office of Career Services early in the fall semester. Each intern keeps an analytical journal, submits a final summary paper, and participates in a weekly seminar. Prerequisites: sophomore, junior, or senior status; appropriate course background in political science or related fields, and permission of the Calvin instructor. Not offered 2007-2008.

390 **Independent Study**. F, I, and S. Reading or directed projects for majors. Open with the permission of the chair and the instructor under whom the work will be done.

399 **The Christian Faith and Public Life** (3). F. This capstone course examines the relationship between the Christian faith and public life. The first half of the course reviews and addresses what our public responsibilities are as Christians generally, and Reformed Christians more specifically, and how such responsibilities may relate to life in our contemporary pluralistic, democratic context, and to the state within the context of the broader international order. The second half of the course permits students to engage in a major research project of their choosing that focuses on the relationship between their Christian faith and some particular aspect of public life. Prerequisites: Junior or senior standing; Biblical Foundations I or Theological Foundations I, Developing a Christian Mind, and Philosophical Foundations.

Psychology

*Professors C. Beversluis, M. Bolt, J. Brink, **M. Gunnoe, P. Moes, A. Shoemaker, S. Stehouwer (chair), D. Tellinghuisen, G. Weaver*
Associate Professors L. De Haan
*Assistant Professor S. da Silva, *J. Yonker*
Instructor B. Riek
Adjuncts J. DeBoe, C. Kok, L. Zwart

The department offers a varied set of courses dealing with important facets of individual human functioning. The major and minor programs in psychology are designed to allow students flexibility to select courses, which fit their present interests as well as their future expectations. Students majoring in psychology often enter human service careers or they pursue graduate study in psychology and related fields. A student handbook for majors can be obtained from the department office.

Students planning a major or minor in psychology are advised to take Psychology 151 as their first course in psychology. Psychology 151, 255, and 399 satisfy requirements for the general college core as well as for major or minor programs of study in psychology.

PSYCHOLOGY MAJOR

Psychology 151
Psychology 255
Psychology 256
Three Psychology electives (may include one interim)
Two 300-level Psychology courses
One 330-level Psychology lab course
Psychology 399

Students must complete a minimum of 10 psychology courses and a minimum of 32 semester hours of psychology course credit.

Students must have a minimum grade point average of 2.00 in psychology courses to declare a psychology major.

Not more than one interim may be included in the ten-course major nor may Psychology 390 or any interim be counted as a 300-level elective.

Students may include either Psychology 201 or 204/205, but not both, as part of their major.

Psychology 204 is offered as a standard developmental course some semesters and Psychology 205 is offered as a cross-cultural engagement course (CCE) other semesters. To determine which course best suits your needs, please pick up a Psychology 204/205 comparison sheet from the psychology office.

Students should ordinarily take Psychology 255 during their sophomore year and Psychology 256 in the semester following completion of Psychology 255. Students may not take Psychology 255 and 256 simultaneously.

When possible, students are encouraged to postpone taking 330-level courses until after the completion of Psychology 256. Psychology 399 is intended to be one of the last courses in a psychology major or minor program.

Students intending to do doctoral work in psychology are strongly encouraged to take Psychology 356 during their junior year and to include more than one 330-level course in their program of study. These courses are less important for masters and/or counseling programs.

A model "four-year plan" and a "two year plan" (for those who declare their major later in their college career) are available in the Psychology Department office.

All majors must complete the Psychology Department Senior Assessment during their last semester on campus. Information on the Senior Assessment is available from the Psychology Department office.

PSYCHOLOGY MINOR

Psychology 151
At least one from Psychology 255, 330, 331, 332, 333, 334, or 335.
Four Psychology electives (may include one interim)

Students must complete a minimum of 6 psychology courses and a minimum of 18 semester hours of psychology course credit

Students may include either Psychology 201 or 204, but not both, as part of their minor.

SECONDARY EDUCATION PSYCHOLOGY MINOR

Psychology 151
Psychology 201
Psychology 212
Psychology 310
At least one from Psychology 255, 330, 331, 332, 333, 334, or 335.
Psychology 399
One psychology elective (may be an interim)

Students must complete a minimum of 7 psychology courses and a minimum of 20 semester hours of psychology course credit.

Students are encouraged to take Psychology 255 to fulfill the core requirement in mathematics if their program allows.

HONORS

Students wishing to graduate with honors in Psychology must maintain a minimum GPA of 3.3 (3.5 beginning with the Class of 2007) and must complete at least six honors courses (18 semester hours minimum). Three of these courses must be in psychology and three must be from outside of the major. One of the psychology honors courses must involve an honors research paper in Psychology 356 or a comparable honors project in Psychology 390. Students must also achieve a minimum cumulative GPA of 3.5 in their psychology major.

INTERNSHIPS

Psychology majors, who have demonstrated ability in their psychology courses, are encouraged to apply for an internship placement during their junior or senior year. Psychology 380 provides a four-semester hour credit internship experience in one of a variety of areas of professional psychological practice and/or research (see course description). These experiences can provide important background for bachelor's degree level employment or graduate education in psychology. Students may also apply for an eight-week summer internship experience in neuropsychology at Rush Presbyterian St. Luke's Medical Center in Chicago. Although students may earn more than 4 semester hours of internship credits, only 4 semester hours can be applied toward the major. Interested students should contact G. Weaver or P. Moes.

COURSES

151 **Introductory Psychology: Perspectives on the Self** (3). F and S. This course provides an introduction to psychology's study of the biological, affective, cognitive, and social dimensions of human identity and behavior. It includes the consideration of such issues as perception and consciousness, learning and memory, motivation and emotion, personality development and social interaction, stress and adjustment. Students are introduced to the methods of psychological research and to the role of psychology in scientific endeavor

and human application. Through assigned reading and writing as well as classroom discussion, students learn to critically weigh alternative claims regarding human behavior and to appreciate a holistic approach to the study of persons.

201 **Developmental Psychology: Lifespan** (3). * F and S. An overview of human psychological development from birth to death. The primary objective is to understand the behavior characteristic of each stage of development and the factors which influence that behavior. Not open to students who have taken or plan to take Psychology 204. Prerequisite: Psychology 151 or Education 302, or permission of the instructor.

204 **Developmental Psychology: Child** (3). *An overview of normal development from conception through adolescence. Organization is chronological (infant, toddler, etc) and conceptual (cognitive development, social-personality development, etc.) Students may engage in service learning at Headstart preschool in lieu of a term paper, but cannot fulfill CCE core in this non-CCE course. Not open to students who have taken or plan to take Psychology 201 or Psychology 205. Prerequisite: Psychology 151 or Education 302 or permission of the instructor. Not offered 2007-2008.

205-CCE **Developmental Psychology** (3). *F. An overview of normal development from conception through adolescence with an emphasis on cross-cultural differences in children's socialization. Particular emphasis is placed on articulations of the Christian faith in U.S. black and Hispanic subcultures. Organization parallels the non-CCE version of the course, but readings and writing focus on cross-cultural understanding. Cross-cultural engagement occurs through Headstart preschool and in worship services. Not open to students who have taken or plan to take Psychology 201 or Psychology 204. Prerequisite: Psychology 151 or Education 302, or permission of the instructor.

207 **Developmental Psychology: Adolescent** (3). *A study of human development in the second decade of life. Topics include the types of transitions experienced (social, cognitive, and physical); the contexts of adolescence (family, peer-group, school, and work); and adaptive vs. maladaptive attempts to establish identity and intimacy. Prerequisite: Psychology 151 or Education 302, or permission of the instructor. Not offered 2007-2008.

211 **Personality and Adjustment** (3). * A study of theory and research pertinent to personality dynamics and adjustment. Coverage typically includes concepts of mental health, the nature of stress, the self concept, and principles of emotional and interpersonal competence. Special emphasis is given to influential world views, Christian assessments, and personal applications. Prerequisite: Psychology 151 or permission of the instructor. Not offered 2007-2008.

212 **Psychopathology** (3). * F and S. A study of the wide range of abnormal behaviors. Emphasis is on causes, dynamics, and classification, with some attention to treatment approaches. Prerequisite: Psychology 151 or permission of the instructor.

213 **Mental Health and the Classroom** (3). * S. An introduction to the developmental needs and common developmental stressors of school age children. Emphasis is on the methods of communication and classroom management, which allow the teacher to promote healthy adjustment. Prerequisite: Psychology 151 or Education 302, or permission of the instructor.

216 **Psychology of the Exceptional Child** (3). * A basic overview of children who differ physically, mentally, or behaviorally from more typical children. Emphasis on causal factors, characteristics, and diagnosis. Prerequisite: Psychology 151 or Education 302, or permission of the instructor. Not offered 2007-2008.

220 **Psychological Perspectives on Marriage and the Family** (3). *F. This course focuses on psychological theory, research, and perspectives on family life. The course examines historical and current conceptualizations of the family as well as cross-cultural and alternative conceptualizations. Psychological perspectives on marriage preparation, marriage, divorce, infertility, child rearing, and single parenthood, as well as developmental changes in the family are addressed. The course also focuses on family dysfunction, treatment, and health. Prerequisite: Psychology 151 or permission of the instructor.

222 **Human Sexuality and Gender** (3). *F. This course explores the ways that sexuality and gender have been studied as variables in psychological research and theory. Special attention will be given to recent theories of physiological and cultural influences on men's and women's development. Biblical and popular perspectives on sexuality and gender issues will be examined, and promises and problems in gender relations will also be studied. Prerequisite: Psychology 151 or permission of the instructor.

255 **Statistics and Research Design**. (4) * F and S. This course is an introduction to statistics and computer application in psychology. Concepts and procedures taught include levels of measurement, measures of central tendency, correlation techniques, probability theory, and hypothesis tests. Lab work includes the use of SPSS software. This course is intended to meet the core Mathematics requirement for Psychology majors and minors. Psychology students typically take this course in their sophomore year. Prerequisites: An introductory course in one of the social sciences (e.g., Psychology 151) and meeting the Calvin admission requirement in Mathematics.

256 **Fundamentals of Research and Practice** (3). * F and S. This course will provide hands-on, participatory research activities that build on the basic theories and applications of Psychology 255. Students will be conducting projects that allow the learning of fundamental practice skills in community or social science research, but also provide additional practice and theory building in statistics and basic research methods. Specific concepts will include basic perspectives in social science research, the fundamentals of measurement in social sciences, sampling techniques, survey design, application of statistical methods to real world situations, use of SPSS, ethical issues in research, and the critical evaluation of research methods and results. Prerequisites: An introductory course in one of the social sciences (e.g., Psychology 151) and Psychology 255.

280 **The Interview: Theory and Practice in Clinical and Organizational Settings** (2). * S. This course focuses on psychological theory, research, and practice in regard to the interview. Emphasis is on historical and current conceptualizations of interviewing techniques and processes. Theory, issues, and techniques regarding the interview are applied to both clinical uses and organizational settings. Prerequisite: Psychology 212 or permission of the instructor.

301 **Organizational Psychology** (3). *A consideration of psychological concepts and research related to human action in work situations, particularly in organizations. The course includes discussions of the psychological processes of individuals involved in work and management (e.g., perceptual discrimination in varying tasks, strategies in problem solving, motivation for power and achievement, and effects of compensation on learning), and the social psychology of the work organization (communication patterns, decision-making processes, performance evaluation, conflict, and stress). The relationship of psychological theory and practice are analyzed through case studies of organizational experiences. Also listed as Business 351. Prerequisite: Business 160 and Psychology 151 or permission of the instructor. Not offered 2007-2008.

306 **History and Systems of Psychology** (3). * This course explores the historical roots of some of the current directions and tensions in the field of psychology. Questions about human nature and the nature of mind and knowledge are addressed though the study of ancient, medieval and modern psychological theory. Prerequisites: two courses in psychology or permission of the instructor. Not offered 2007-2008.

310 **Social Psychology** (3). * F and S. A study of how people think about, influence, and relate to one another. Attention is given to such topics as persuasion and attitude change, conformity and obedience, group conflict and decision-making, stereotypes and illusions of social thought, attraction and prejudice, and altruism and aggression. Prerequisite: Psychology 151 or permission of the instructor.

311 **Theories of Personality** (3). * F and S. A study of the enduring human personality characteristics that often distinguish one person from another. Extensive consideration is given to biological, psychodynamic, social, cognitive, and trait-descriptive theo-

ries of personality structure and functioning. The course also introduces students to a variety of personality scales and inventories designed to identify important individual differences in personality. Prerequisites: Psychology 151 and 212 or permission of the instructor.

312 **Principles of Psychological Measurement** (3). * An introduction to the theoretical and practical issues of psychological testing. Topics include: Reliability and validity of tests, construction of psychological and educational measures, the use and misuse of standardized tests, strengths and weaknesses of commonly used tests, and the social, educational, and legal issues involved in testing and measurement. Prerequisite: Psychology 255 or permission of the instructor. Not offered 2007-2008.

314 **Theories of Counseling and Psychotherapy** (3). * F. An introduction to counseling and psychotherapeutic methods for dealing with emotional disorders. The course includes an overview of major approaches to counseling and psychotherapy with an analysis of the theoretical aspects and techniques employed. An attempt is also made to integrate these various approaches and to view them from a Christian perspective. Prerequisites: Psychology 212 and 311 or permission of the instructor.

322 **Perspectives of Psychology: Youth Faith Development and Spiritual Formation** (3). *F. This course examines how faith is formed and developed, with particular emphasis on the adolescent passage between childhood and adulthood, in cultural context. It includes the history an current practices of spiritual formation with particular emphasis on the Protestant tradition, current theories of moral and faith development, and students' self-reflection on their own formative experiences and insights. Course content to be explored, evaluated, and applied from a Reformed biblical perspective.

330 **Psychology of Motivation** (4). * S. An investigation of physiological, learning theory, and social-cognitive explanations of motivation. Topics include: Brain mechanisms influencing hunger, sexual desire, attention, punishment and reward, drug effects on personality, emotional processes in addiction, drive and incentive effects in clinical disorders and work activity, gender and culture differences in achievement and power motives, decisional processes in learned optimism, and applications of theory to learning in inner city classrooms and to industrial productivity. The study of motivation is presented as a model for understanding interrelationships among different approaches to psychological theory and research. Two-hour laboratory each week. Prerequisite: Psychology 151 or permission of the instructor. Recommended: Jr./Sr. status.

331 **Psychology of Sensation and Perception** (4). * A detailed examination of the theories and research pertaining to various sensory and perceptual processes in human beings. Methodological, physiological, and pretheoretical issues are addressed. Two-hour laboratory each week. Prerequisite: Psychology 151 or permission of the instructor. Recommended: Jr./Sr. status. Not offered 2007-2008.

332 **Psychology of Learning Processes** (4). * A consideration of how research findings and theory relate to learning processes. Included are such issues as the role of reinforcement and punishment, methods of enhancing or suppressing performance, biological limits on learning, stimulus generalization, and discrimination learning. The importance of learning theory for psychology in general is stressed. Two-hour laboratory each week. Prerequisite: Psychology 151 or permission of the instructor. Recommended: Jr./Sr. status. Not offered 2007-2008.

333 **Brain and Behavior** (4). * F. This course explores the rapidly expanding knowledge of brain function that is having a major impact on the way we understand everyday behavior, personality, and human nature. Specific topics include the relationship of brain function to vision, sleep, sexuality, memory, language, emotions, anxiety, depression, schizophrenia, and homosexuality. The course includes an introduction to the work of clinical neuropsychologists and cognitive neuroscientists by way of clinical case studies. Class discussions and readings also focus on our understanding of persons in light of this research. Laboratory and off-campus experiences introduce basic anatomy and physiology of the brain, electrophysiological measures (EEG), behavioral measures of brain function, and neuropsycho-

logical testing. Prerequisites: Psychology 151 and Biology core or permission of the instructor. Recommended: Jr./Sr. status.

334 **Cognitive Psychology** (4). * F. A survey of research and theory in the study of human cognition. The course covers the acquisition, representation, and use of knowledge with emphasis on the processes of memory, language, and decision-making. Two-hour laboratory each week. Prerequisite: Psychology 151 or permission of the instructor. Recommended: Jr./Sr. status.

335 **Health Psychology** (4). * S This course considers the psychosocial and physiological processes that underlie wellness. The role of stress in cardiovascular disease, cancer, drug addiction, sleep disorders and eating disorders is considered. The centrality of immune and cardiovascular system functioning in health and illness is emphasized. Attention is given to the effectiveness of a wide variety of coping strategies including pain control, physical exercise, and religious practice. Across topics, the course will emphasize current treatment procedures and research issues in the field. Two hour laboratory each week. Prerequisite: Psychology 151 or permission of the instructor. Recommended: Jr./Sr. status.

356 **Experimental Psychology** (4). *S. This course explores experimental designs and the statistical techniques related to them. Students will have hands-on experience with experimental control techniques, factorial designs and interaction effects, and the use of the analysis of variance. In addition, students will design their own experimental research, implement their studies and analyze the resulting data. This course is a preparation for graduate-level research. Prerequisites: Psychology 255 and 256. .

380 **Internship in Psychology** (4). * F and S. Students are placed in a field experience related to a specialized area of psychological practice or research (e.g., school psychology, industrial-organizational psychology, or counseling-rehabilitation psychology). Students work eight hours per week under the direction of an on-site supervisor and participate in regular seminar meetings conducted by the college instructor. These experiences will introduce students to service in professional psychology, as it is related to issues of psychological theory, research, client characteristics and needs, professional standards, and Christian discipleship. Each student will author a project that communicates learning throughout the internship. Prerequisites: Junior or senior psychology major, completion of course sequences related to the internship specialization (information available from the Psychology Department), and departmental approval of student application.

390 **Independent Study**. F, I, and S. Prerequisite: Permission of the department chair.

399 **Psychology and Religion** (3). * F and S. This capstone course examines relationships between psychology and religion. It includes discussions of how several major psychologists have attempted to explain religious faith and practice. The course examines frameworks that have been proposed for relating Christian beliefs about persons and psychological explanations. Consideration is given to how these frameworks have influenced recent investigations of areas related to our experiences of Christian faith (e.g., perception, moral development, and emotion). Prerequisites: Psychology 151 and three additional psychology courses or permission of the instructor. (See description of Templeton Award linked to the course under "Financial Information, Other Student Awards" heading of the catalog).

Graduate Courses

590 **Independent Study**. F, I, and S.

Religion

*Professors D. Crump, C. de Groot, A. Griffioen, D. Obenchain, R. Plantinga, K. Pomykala (chair), J. Schneider, T. Thompson, **R. Whitekettle*
Associate Professors D. Harlow, W. Lee, L. Smit
Assistant Professors M. Lundberg, S. McDonald, C. Pierce
Adjunct J. Witvliet

The department offers a general major in religion and a teaching major for students in secondary education. In addition, students may design group majors, such as Religion and Philosophy, Religion and History, or Religion and Sociology. Two minor concentrations are offered: A general minor and a group minor in missions. These programs are described below and will be worked out with a departmental advisor who will help design the program according to the student's specific needs and interests.

GENERAL MAJOR

One course in Old Testament (Religion 211-214)
One course in New Testament (Religion 221-224)
One course in Systematic Theology (Religion 230-237, 251)
One course in Historical Theology (Religion 241-244)
One course in Religious Studies (Religion 250, 255, 352-355)
Two 300-level electives (excluding the course used to fulfill the Religious Studies requirement and 396)
Two additional electives in Religion (excluding 121 & 131)
Religion Seminar (Religion 396)

The general major in religion is designed for students seeking a strong background in biblical, theological, and religious studies as preparation for various professions, for graduate education, or for Christian service generally. The general major consists of ten courses (30 semester hours). A departmental interim course may be included as an elective course. As part of the departmental writing program, majors must designate one departmental course (excluding Religion 121, 131, 359, 396) prior to their senior year as writing enriched. This course will include additional writing, a revision component, intensive evaluation, and will prepare the student for Religion 396. Students considering seminary or graduate school should consult their advisor about a recommended language cognate. Admittance to the major program requires completion of a core course with a minimum grade of "C" (2.0).

SECONDARY EDUCATION MAJOR

Biblical Foundations Core
Theological Foundations Core
Religion 250
Religion 255
Interdisciplinary 234
One elective from biblical studies
One elective from theological studies
Two courses from Art 232, 233, Classics 231, History 231-233, Philosophy 204, 205, Psychology 399, Sociology 153, religion courses in biblical studies and theological studies, or an approved interim.
Religion 357

The teaching major is for education students who plan to teach religion in secondary schools and consists of ten courses (30 semester hours). The teaching major in religion fulfills the requirements for the state-certified Academic Study of Religions minor. (It cannot count as a state-certified major in a secondary education program). Teaching majors must fulfill the departmental writing program requirements as stated above under the general major. T. Thompson is the advisor for the teaching major.

INTERDISCIPLINARY MAJORS

Interdisciplinary majors in religion and other fields may be designed according to the guidelines for group majors. For example, a student wishing to present an interdisciplinary major in Religion and Philosophy could take 4–6 courses (12–18 semester hours) in religion and 4–6 courses (12–18 semester hours) in philosophy, and 2 courses (6 semester hours) from a third discipline. Interdisciplinary majors must be carefully

planned and must be approved by both major department chairs and the registrar.

GENERAL MINOR

One course in Biblical Studies (Religion 211-214; 221-224)
One course in Theological Studies (Religion 230-237; 241-244; 251)
One course in Religious Studies (Religion 250, 255, 352-355)
One 300-level elective
Two additional electives in Religion (excluding 121 and 131)

The general minor in religion is for students who seek to develop a biblical and theological perspective for work in other disciplines and for Christian service generally. This minor consists of six courses (18 semester hours), excluding 121 and 131. An interim course may be included as an elective course.

GROUP MINOR IN MISSIONS

Religion 251
Religion 252
Sociology 253
Three courses chosen (in consultation with an advisor) from the following: Religion 255, 352, 353, 354, 355, Geography 320, 240, Sociology 153, Economics 337, IDS 201, area study courses (History 238, 241, 242, 245, 246, 331, 338, 371, 233-236, 355, and Spanish 310), an appropriate interim course, and other courses approved by the advisor as part of an introduction to holistic missions

The group minor in missions is for students interested in missions and other cross-cultural ministries and consists of 6 courses (18 semester hours). D. Obenchain is the advisor for the missions minor.

COURSES

Basic Courses

121 **Biblical Literature and Theology** (3). F and S. This course is a study of the Bible within its literary, historical, cultural, and canonical context in order to understand its central theological teachings.

131 **Christian Theology** (3). F and S. A study of Christian theology in light of its historical development and ongoing significance, this course surveys the central teachings of the Christian Church as rooted in the Bible, formulated by key theologians, and summarized in the ecumenical creeds and Reformed confessions.

Intermediate Biblical Studies Courses
Prerequisite: Religion 121 or 131

211 **Pentateuch** (3). F and S. A study of the first five books of the Bible. This course examines the accounts of creation, the fall, Israel's ancestors, the exodus, and the giving of the Law. Theological issues explored include the nature of God, human beings, and the world, our covenantal relationship with God, and the presence of God in historical events.

212 **Old Testament Historical Books** (3). F. This course explores the Old Testament books of Joshua through 2 Kings, 1 and 2 Chronicles, Ezra, and Nehemiah in terms of their literary features, historical settings, and theological themes. Particular attention is devoted to the prophetic character of these works, which provide a theological interpretation of Israel's history.

213 **Psalms and Wisdom Literature** (3). F. Students examine the books of Psalms, Proverbs, Job, and Ecclesiastes. The three focuses of the course are how to read poetry, the different categories of the Psalms and their interpretation, and the role of wisdom books in the Bible.

214 **Prophets** (3). F and S. The books of Old Testament prophetic literature are studied, including Isaiah, Jeremiah, Ezekiel, and selected minor prophets. Each book is considered in light of its literary characteristics and sociohistorical context with a view to explicating the text's theological message and its contemporary relevance.

221 **Synoptic Gospels and Acts** (3). F and S. This is a study of Matthew, Mark, and Luke-Acts. After dealing with introductory issues, this course examines the text and context of the books to discern their major themes. The relationship between the Synoptic Gospels and the historical Jesus is also considered.

222 **Johannine Literature** (3). F and S. This course studies the Fourth Gospel and 1-3 John. Students consider matters of introduction, historical context, interpretation of major themes and distinctive theological contributions.

223 **Paul's Letters** (3). F and S. A study of Paul's letters with particular attention to their meaning within the context of the early Christian communities.

224 **Revelation and General Letters** (3). F and S. This course studies Revelation and the general letters, including Hebrews, James, 1 and 2 Peter, and Jude, in terms of their literary features, historical setting, theological emphasis, and present relevance.

Advanced Biblical Studies Courses

307 **Interpreting the Bible** (3). *Alternate years. A study of the methods and principles of biblical interpretation. Various exegetical and hermeneutical approaches will be examined and evaluated in terms of their usefulness for understanding the meaning and message of the scriptures. Prerequisite: at least two courses in biblical studies or permission of the instructor.

309 **Biblical Theology** (3). *F, alternate years. A course in constructive biblical theology, focusing on central themes, the problem of the unity and diversity of scripture, the "center" of biblical revelation, and proper methodology. Issues are considered in the context of historic and recent attempts to construct a biblical theology. Prerequisite: at least two courses in biblical studies or permission of the Instructor.

311 **History and Archaeology of Ancient Israel** (3). *Alternate years. A study of the history of ancient Israel from the patriarchs through Ezra in the context of recent research on this topic. This course will consider the sources for reconstructing the history of Israel, including the Old Testament, Ancient Near Eastern literary remains, and archaeological evidence, as well as appropriate methods for interpreting these sources. Prerequisite: 121 or an intermediate biblical studies course.

313 **When Women Read the Old Testament** (3). *S, alternate years. This course is the special topic for the Current Issues in Old Testament Studies course. In the last two decades, biblical interpretation by women and about women has blossomed and made significant contributions to the field of biblical studies. This course will study feminist approaches to the Old Testament and examine key passages relating to gender issues. Prerequisite: 121 or an intermediate biblical studies course.

321 **Intertestamental Judaism** (3). *Alternate years. A study of Jewish history, literature, and thought from 400 B.C. to A.D. 100, as a background for understanding the New Testament. Literature studied includes the Apocrypha and Dead Sea Scrolls. Prerequisite: 121 or an intermediate biblical studies course.

323 **Christian Origins** (3). *F, alternate years. A historically-oriented study of selected topics on the origins of Christianity during the first century, this course studies such matters as the Jewish and Greco-Roman context of earliest Christianity, the historical Jesus, and the history and theology of the earliest Christian communities. Prerequisite: 121 or an intermediate biblical studies course.

Intermediate Theological Studies Courses
Prerequisite: Religion 121 or 131

230 **The Doctrine of Revelation** (3). F. This course is designed to help students explore Reformed concepts of revelation in contemporary cultural context. Traditional models of general and special revelation and models of biblical inspiration and authority are explored and developed in the context of modern and post-modern concerns in philosophy, science, and non-Christian religions.

231 **The Doctrine of God** (3). F and S. This course is designed to examine Christian concepts of God in considerable depth within the context of historic debates and modern discussions. Issues considered include the possibility and extent of human knowledge of God, evidence for God's existence, the attributes of God, and the nature of the Trinity.

232 **The Doctrine of Creation** (3). F and S. This course investigates Christian teaching about the creation of the world. Topics considered include the interpretation of Genesis 1 and 2, creation out of nothing, creation and evolution, the goodness of creation and the problem of evil, the image of God, the cultural mandate and the idea of stewardship, and the eclipse of creation in modern thought.

233 **The Doctrine of Christ and Reconciliation** (3). F and S. The main goal of this course is to provide students with an opportunity to examine and reflect upon historic and Re-

formed doctrines of the person and works of Christ in the context of contemporary analytic thought and current biblical theology. Topics include Christ as God and man in current discussion, New Testament Christology and the current debates, and Reformed Christology in the making.

234 **The Doctrine of the Holy Spirit and Church** (3). S. This course is a study of the biblical teachings, confessional formulations, theological reflections, and experiential impact of the universal and local church as the creation and manifestation of the Holy Spirit, as well as the attributes and ministries of the Church universal.

235 **Eschatology** (3). F and S. Christian teachings concerning the end times and last things are studied in this course, including their biblical basis, historical formulations, and contemporary relevance. Topics covered include the return of Christ, the final judgment, the resurrection of the body, and eternal life. Millennialist and dispensationalist issues are also critically analyzed both historically and theologically.

237 **Christian Worship** (3). S. A study of the history, theology, and practice of Christian worship. This course examines the relationship between theology and worship by considering the biblical basis for worship, the history of Christian liturgy, and contemporary worship. Examples of sermons, baptismal, and Lord's Supper practices, hymnody, prayers, dance, art, and architecture from both traditional and contemporary worship are studied.

241 **General Church History** (3). A survey of the history of the Christian church from its beginning to the present time, noting deviations from apostolic faith and practice, the interplay with the political, the great church councils, the crises that emerge, divisions and reunions, and the confluence of forces that determine the complexion of the Christian church today. Not to be taken if students have taken or plan to take Religion 243 or 244. Not offered 2007-2008.

242 **Christianity in America** (3). F, alternate years. A study of the history and theology of Christianity in America from the immigration period to the present. Attention is paid to the European background, the colonial era and such movements as revivalism, evangelicalism, fundamentalism and liberalism.

243 **History of Christian Theology I** (3). S. This is a historically oriented study of Christian theology in the Patristic and Medieval periods (100-1500). Particular attention is paid to the development of key Christian doctrines such as the Trinity and the Incarnation and to questions such as the relationship between faith and reason.

244 **History of Christian Theology II** (3). F and S. This is a historically oriented study of Christian theology in the Reformation and Modern periods (1500 to the present). Particular attention is paid to the development of key Christian doctrines such as justification, sanctification, and the church and to questions such as the relationship between faith and reason.

251 **Christianity and Religious Plurality** (3). F and S. This course examines the relationship of Christianity to the religions of the world. An attempt is made to understand the phenomenon of religion from a theological perspective by investigating how various biblical and Christian writers have viewed Christianity's place in the religious history of the world. Special emphasis is placed on twentieth-century attempts to confront the reality of religious pluralism.

Advanced Theological Studies

331 **Theology: Theory and Method** (3). *F, alternate years. An investigation of the nature, task, and method of the discipline of systematic theology. A review of the pre-modern history of the concept of theology serves as a prelude to the focus of the course: the status of systematic theology in the post-Enlightenment period. Issues discussed include the relationships of theology to church, academy, and society. Thinkers and approaches dealt with include Schleiermacher, Barth, Tillich, Lonergan, Pannenberg, revisionism, and post-liberalism. Prerequisite: Religion 131 or an intermediate theological studies course.

332 **Theological Ethics** (3). *S, alternate years. A study of Christian moral theory and its application to selected cases. This course examines how diverse understandings of God's relationship to the creation inform how Christians think about the moral life.

Ethical issues such as war, human sexuality and reproduction, death and dying, and the environment are analyzed in light of theological commitments. Prerequisite: Biblical and Theological Foundations Core or permission of the instructor.

333 **Studies in Roman Catholic Theology: Contemporary Catholic Theology** (3). *Alternate years. A sympathetic study of Roman Catholic theology, with particular attention to developments since the Second Vatican Council (1962-1965). Topics include scripture and tradition; grace and justification; church, liturgy, and sacraments; ethics and the church in the modern world; death and the afterlife; Marian devotion; ecumenism; ecclesiastical authority and papal infallibility; and the pontificate of John Paul II. Prerequisite: 131 or an Intermediate theological studies course.

341 **Studies in Early and Medieval Theology: The Rise of Trinitarian Theology** (3). *Alternate years. This course explores the Patristic development of the doctrine of the Trinity through a close reading and discussion of primary texts. It examines the fourth-century trinitarian controversies, their precursors, and their implications. Attention is also given to how the work of the Cappadocians in the East and Augustine in the West set the tone for the Trinity doctrine of the Middle Ages. Prerequisite: 131 or an intermediate theological studies course.

343 **Studies in Reformation Theology** (3). *Alternate years. A study of selected doctrinal topics and central figures of the sixteenth century Protestant Reformation. Prerequisite: 131 or an intermediate theological studies course.

345 **Studies in Contemporary Theology** (3). *S, alternate years. A study of selected figures, movements, and doctrinal topics in twentieth century theology. Prerequisite: Biblical and Theological Foundations Core, or permission of the instructor.

Religious Studies

250 **Introduction to the Study of Religion** (3). A thematic introduction to the phenomenon of religion in comparative perspective. Issues examined include the dichotomy between the sacred and the profane, the nature of religious experience and its various expressions in life, the significance of myth and ritual, and differing analyses of human existence. Attention is also given to questions about the origin, nature, and function of religion in human life and society, and to issues pertaining to the study of religion in the humanities and social sciences. Not offered 2007-2008.

255 **World Religions** (3). * F and S. A historical investigation of the nature of religion by examining the chief theories and practices of some of the world's major, non-Christian religions, including Hinduism, Buddhism, Confucianism, Taoism, and Islam. Emphasis is placed on each tradition's analysis of the basic human problem and the solution that it offers to the problem. Some attention is also paid to new, emergent religious movements and their relationship to older established traditions. Prerequisite: One religion department course.

352 **Judaism** (3). *Alternate years. A study of the major developments in Jewish history, thought, and practice beginning with the second temple era and extending to the contemporary period. Subjects studied will include rabbinic Judaism and its literature — the Mishnah and the Talmuds, medieval Jewish philosophy and mysticism, emancipation, Zionism, the Holocaust, and North American Judaism. The question of Jewish-Christian dialogue will also be considered. Prerequisite: One religion department course.

353 **Islam** (3). *Alternate Years. A historical and comparative study of Islam in its diverse regional and cultural settings, including the Middle East, Africa, Asia and the West. Topics will include the life and times of Prophet Muhammad, the Quran, the division between Sunni and Shia, and the formation of the traditions of Hadit and Shariah. Prerequisite: one religion department course and sophomore or higher status.

354 **Hinduism** (3). *F, alternate years. This course introduces Hindu religious traditions by examining Hindu mythology, philosophy and society from it s beginning to the present. Topics will include the law of karma, class structure, dharma, yoga, devotional traditions, liberation, modern reform movements and Hindu mythology as presented in its sacred texts, including the Vedic hymns, Upanishads, and Bhagavad-Gita . Prereq-

uisite: one religion department course and sophomore or higher status.

355 **Buddhism** (3). *Alternate years. A historical and doctrinal study of Theravada and Mahayana Buddhism, focusing on Buddhist views of the human predicament and its solution, and different teachings and Buddhists practices in various regions of Asia and the West. Other topics include the historical Buddha's sermons, Buddhist psychology, cosmology, meditation, bodhisattvas, Pure Land and Zen. Prerequisite: one religion department course and sophomore or higher status.

Other Courses and Seminars

252 **Introduction to Missions** (3). Alternate years. A general introduction to Christian missions in biblical and historical perspective. This course surveys the biblical and theological foundations for missions, and the church's interpretation and implementation of the task of spreading the gospel. The methods, challenges, successes, and failures of Christian missionary activity will be considered. Prerequisite: Religion 121 or 131.

295 **Christianity and Culture** (3). S, alternate years. This course is a critical survey of models by which God's people have defined their relationship to the world, from Biblical times to the present, with a particular emphasis on the Reformed tradition. Special attention is given to the contemporary relevance of this discussion, both in terms of ways in which different models are visible in today's world and in terms of ways that the Reformed model can be applied to present concerns. Prerequisite: Biblical and Theological Foundations Core.

357 **Religion and Education Seminar** (3). F. A seminar in perspectives, principles, and practices in the teaching of religion on the secondary level. This course addresses a wide range of pedagogical issues that confront the teacher of biblical, theological, and religious materials in secondary teaching and requires a major curriculum project. Prerequisite: Education 302/303 or permission of the Instructor.

379 **Research Topics in Christian Worship** (3). Participation in collaborative research on the theology, history, and practice of Christian worship. Topics are chosen in conjunction with the scholarly initiatives of the Calvin Institute of Christian Worship. Enrollment open to qualified juniors and seniors. Prerequisites: Biblical and Theological Foundations Core and permission of the instructor. Not offered 2007-2008.

396 **Religion Seminar** (3). S. An advanced seminar for senior majors in religion and other qualified students. This course considers significant issues in biblical, theological, and religious studies and requires a major research paper. Prerequisites: Three electives in religion and for non-majors, permission of the instructor.

Graduate Courses

510 **Theological and Philosophical Hermeneutics** (3). This course is an intensive study of the theory and methods of biblical interpretation developed in the context of modern theology and philosophy. Questions about language and events, experience and significance, and authority and community comprise the core of this course.

580 **Perspectives, Programs, and Practices in Bible and Religion Curriculum** (3). A study of various approaches in the schools to curriculum and teaching in biblical studies, church history, Reformed thought, and world religions. Consideration is given to the way fundamental differences of perspective on biblical Christianity influence the selection and use of curriculum designs, materials, and teaching techniques. Course content is adapted to the various grade levels of particular interest to enrollees.

590 **Independent Study**. F, I, and S.

Science Education Studies

Professor J. Jadrich
Assistant Professors K. Bergwerff, C. Bruxvoort

Courses listed under Science Education Studies are open to all Calvin students meeting the course prerequisites, although their primary intent is to serve students in the Teacher Education Program. Students wanting both certification and the flexibility to teach any science course at the middle or high school level must major (secondary education students) or at least minor (elementary education students) in Integrated Science Studies. More detailed descriptions of these programs can be found in the Teacher Education Program Guidebook.

INTEGRATED SCIENCE STUDIES MINOR—ELEMENTARY EDUCATION

Designed for students in the Elementary Education Program wishing to minor in science.

A minimum of 26 semester hours of science must be taken, including the following:

Biology 112
Chemistry 101
Geology 120
Physics 212
SCES 112
SCES 313 or SCES 312
An advisor-approved elective in science

INTEGRATED SCIENCE STUDIES MAJOR—ELEMENTARY EDUCATION

A minimum of 38 semester hours of science must be taken, including all the courses prescribed for the elementary education minor, plus the following:

Astronomy 110 or 211
Biology 115
A second advisor-approved elective in science

COMPREHENSIVE INTEGRATED SCIENCE STUDIES MAJOR-SECONDARY EDUCATION

This major program of study is not the one recommended for most students. The program for the regular integrated science major, plus a minor in a science discipline (listed subsequent to this one), is the recommended major for most students. Students completing the comprehensive major described here are not required to complete an additional minor area of study for certification.

Biology 141
Biology 242
Biology 243
Chemistry 103
Chemistry 104
Chemistry 253
Geology 120
Geology 152
Astronomy 110, 111, or 211
Physics 221
Physics 222
Physics 134
SCES 214
SCES 314
SCES 359 (concurrent with EDUC 346)
A total of at least two semesters of any combination of the following courses. (Two semesters of enrollment in the same course is also allowed.) BIOL 295, CHEM295, or PHYS 195

Cognates
Math 132 or 161

INTEGRATED SCIENCE STUDIES MAJOR—SECONDARY EDUCATION

This is the preferred program for all secondary education students wishing to obtain teaching certification in all the sciences. Students pursuing this major must also complete a minor in one of the four science disciplines (biology, chemistry, earth/space science, or physics). Courses for this integrated science major are the same as those listed for the comprehensive integrated science major described previously. Courses in the disciplinary minor may overlap with the courses required for the Integrated science studies major. All the courses listed for the science minor must be completed.

COURSES

112 **Physical and Earth Science for Elementary School Teachers** (4). * F and S. This course uses a guided inquiry approach in surveying topics in chemistry, earth science, and physics that are relevant for teaching in elementary school. The course is designed to give prospective teachers background knowledge and experiences that will help them to teach inquiry-based science effectively. Topics covered include scientific models, meteorology, convection, astronomy, the particulate nature of matter, energy, and change.

113 **Scientific Analysis for Elementary School Teachers** (4). * F and S. This course integrates life, earth and physical science as well as the scientific process skills needed to engage in scientific inquiry. Topics covered include scientific problem solving, testing hypotheses, and designing and carrying-out experiments. Science and scientific processes are analyzed and discussed in terms of their limits and their relevancy to a Christian perspective of the world. Prerequisites: Science Education Studies 112.

214 **Communication and Learning in the Natural Sciences** (3). *I. This course provides a systematic examination of communication and teaching strategies for natural science at the middle and high school level, including oral exposition, visual imagery, demonstrations, technology, and laboratory activities. Theoretical components include the underlying educational theories, scientific literacy, and the unifying themes and practices in science. Practical components include methodologies for assessment, lesson and unit development, laboratory safety, and student presentations and response. Prerequisite: At least three courses in natural science.

312 **Teaching Science in Elementary and Middle School** (3). * I. A consideration of the methods, pedagogies, and strategies associated with teaching science in elementary and middle school. Curricular resources for teaching science, including the use of technology and written materials, are also examined with consideration of the criteria for their evaluation. Additional topics include assessment, benchmarks and standards, and lesson and unit development. The relationship of Christian faith to the teaching of science in the classroom is also examined. Field experiences during normal course hours are included. This course fulfills all the same requirements as SCES 313. Prerequisites: Education 302 and at least one natural science course.

313 **Science Teaching in Elementary and Middle School** (2). * F and S. A consideration of the methods, pedagogies, and strategies associated with teaching science in elementary and middle school. Curricular resources for teaching science, including the use of technology and written materials, are also examined with consideration of the criteria for their evaluation. Additional topics include assessment, benchmarks and standards, and lesson and unit development. The relationship of Christian faith to the teaching of science in the classroom is also examined. Field experiences during normal course hours are included. Prerequisites: Education 302 and at least one natural science course.

314 **Integration Methods and Pedagogies for Secondary Science Teachers** (2). * F, alternate years. This course explores the integration of the natural science disciplines, issues related to the nature of science, and the methods and pedagogies used in secondary science teaching. Theoretical components include a study of the cross-disciplinary nature of science and relevant educational theories impacting the role of the teacher and students in diverse science classroom settings. Practical components include methodologies for lesson and teacher development and assessment, curriculum planning, laboratory development, and classroom management. Prerequisite: Science Education Studies 214. Prior completion of EDUC 302-303 is recommended.

359 **Seminar in Secondary Teaching of Integrated Science** (3). S. A course in perspectives on, principles of, and practice in the teaching of the natural sciences at the middle school and secondary level. Included are classroom management strategies, the role of the teacher, curriculum studies, readings in science education, and self-assessment strategies. This class is taken concurrently with EDUC 346, allowing students the opportunity to reflect on science education while engaging in classroom practice.

390/590 **Independent Study** (1-4). * F, I, S, and SS. This course provides the opportunity

for a student to conduct research or independent work under the direction of a Science Education Studies advisor. Permission to enroll must be obtained from the faculty member directing the project. The requirements for credit are determined by the supervising faculty member in collaboration with the student.

Sociology and Social Work

Professors C. Kreykes Brandsen (Chair), F. De Jong, P. DeJong, P. Freston, B. Hugen (Director of Social Work), M. Loyd-Paige,
*Associate Professors * M. Ntarangwi, T. VandenBerg, K. Ver Beek*
Assistant Professors S. Bluhm , R. Chamiec-Case, M. Hughes, M. Mulder, L. Schwander (Social Work Practicum Coordinator), J. Tatum (Pre-law Advisor)

The department offers courses in sociology, social work, and anthropology. Sociology is the study of the principles of group relationships, social institutions, and the influence of groups on individuals. Urban, cross-cultural, criminology, and/or family studies are some possible groupings within sociology that majors might want to pursue. Social work is a professional program, the study of the knowledge, skills, and values necessary for generalist social work practice. Anthropology is the study of the cultural values of peoples around the world and how these values become expressed in specific behavioral patterns. Programs in the department lead to a departmental major in sociology, a minor in sociology, a major in social work leading to a Bachelor of Social Work (B.S.W.) degree, and a minor in social work.

SOCIOLOGY MAJOR

Sociology 151
Sociology 255
Sociology 318
Sociology 320
Sociology 395
Six electives

SOCIOLOGY MINOR

Sociology 151
Six electives

SECONDARY EDUCATION SOCIOLOGY MINOR

Sociology 151
Interdisciplinary 205
Sociology 253
Sociology 304
Psychology 310
One from Sociology 255 or 318
One other Sociology elective

Students who spend a semester at the Chicago Semester may apply some of that work to a departmental major or minor.

For admission to the major program, a student must complete Sociology 151 with a minimum grade of C (2.0).

SOCIOLOGY HONORS

Students wishing to graduate with honors in Sociology must maintain a minimum GPA of 3.5 and must complete at least six honors courses (18 semester hours minimum). Three of these courses must be in sociology and three must be from outside of the major. Students must complete an honors thesis in Sociology 395, including a public presentation of results whenever appropriate. Honors students are encouraged to participate in department seminars and colloquia when appropriate. Students must also achieve a minimum cumulative GPA of 3.5 in their major. The advisor for the Sociology honors program is C. Brandsen.

SOCIOLOGY INTERNSHIPS

Sociology majors who have demonstrated ability in their sociology courses are invited to apply for an internship placement during their senior year. Sociology 380 offers a three-semester-hour credit experience in a professional setting delivering applied sociology or research services. Professional settings include agencies in the fields of criminal justice, cross-cultural development,

family service, gerontology, mental health, and urban planning. Internships can provide important background for later employment and graduate school. Interested students should contact M. Mulder.

SOCIAL WORK (B.S.W.)

The Bachelor of Social Work degree is designed for students who want to prepare for a career of Christian service as a professional generalist social worker. The program is carried out in the context of the mission of Calvin College, which is to offer a Christian education enriched by the insights of the Reformed heritage. Upon completion of the program, students are prepared for entry-level professional social work positions. The B.S.W. program is accredited by the Council on Social Work Education.

Students who wish to pursue a B.S.W. will normally make application to the Director of Social Work by February 15 of their sophomore year. Decisions about admission to the program are made by the Social Work Program Committee and are based on the following criteria: 1) Students must have earned at least 35 semester hours of credit and either have completed or currently be enrolled in Biology 115, a second SSNA course, Psychology 151, Sociology 151, and Social Work 240 and 250; 2) Students must have a minimum grade point average of 2.5 and a minimum grade of C– in each of the courses just specified; 3) Students must have completed or be completing at least 50 hours of social work volunteer or paid service and submit a letter of reference from an appropriate supervisor; and 4) Students must submit a written personal statement, which includes information about their commitment to social work as a vocation and their relative strengths and areas for development as potential professional social workers. Since enrollment in the senior-level practicum is limited, admission to the program is also limited and, therefore, fulfillment of the admission requirements cannot guarantee admission.

The B.S.W. is composed of twelve courses and several social science cognate requirements. The social work major includes courses in social work theory, practice skills, policy analysis, and research, along with a practicum experience in a human service agency. Once admitted to the B.S.W. program, students must make separate application to the practicum. The core requirements include the liberal arts offerings required of all students, with the exception of a physical world course reduction, and an additional SSNA cognate. Core requirements, along with cognate and program requirements, are specified in the following model program:

First year	*Semester hours*
English 101	3
History of the West/World	4
Religion 121 or 131	3
Biology 115	4
Psychology 151	3
Sociology 151	3
Language 101 and 102	8
Health and Fitness	1
FIT	1
Developing a Christian Mind (Interim)	4
Second year	*Semester hours*
Philosophical Foundations	3
Societal Structures in NA (2nd cognate)	3
Social Work 240	3
Social Work 250	3
Rhetoric in Culture	3
Language 201 and 202	8
Health and Fitness	1
The Arts	3
Interim Elective	3

Third year	*Semester hours*
Literature	3
Biblical/Theological Foundations II	3
Social Work 255	4
Global and Historical Studies	3
Social Work 320, 350, 360, and 370	13
Health and Fitness	1
Electives	3-6

Fourth year	*Semester hours*
Social Work 371, 372, 373, 380 and 381	24
Electives	3-6

The social work courses are described on pages 252–253. A fuller description of the B.S.W. program is given in the *Social Work Handbook*, which can be obtained at the department office (Spoelhof Center 210).

SOCIAL WORK HONORS

Students wishing to graduate with honors in Social Work must maintain a minimum GPA of 3.5 and must complete at least six honors courses (18 semester hours minimum). Three of these courses must be in Social Work and three must be from outside of the major. At least two courses must be chosen from Social Work 320, 350, or 360. The third course may be chosen from Social Work 255, 371, 372, or 373. The completion of an honors research thesis or project developed in an Independent Study (390), the 381 Social WorkIntegrative Seminar, or another approved means along with a public presentation of the results is also required. Students must achieve a minimum cumulative GPA of 3.5 in the Social Work major. The advisor for the Social Work honors program is B. Hugen.

SOCIAL WORK PRACTICUM

All social work students must complete a 400-hour practicum during their senior year. Practicums are completed in Western Michigan, through the Chicago Semester Program, or in Washington D.C.. For more information, contact the Social Work Practicum Coordinator. See Social Work 380 course description for further details.

SOCIAL WORK MAJOR

Social Work 240
Social Work 250
Social Work 255
Social Work 320
Social Work 350
Social Work 360
Social Work 370
Social Work 371
Social Work 372
Social Work 373
Social Work 380
Social Work 381

SOCIAL WORK MINOR

Psychology 151 or Sociology 151
Social Work 240
Social Work 350
Social Work 360
Two from Social Work 250, 370, or Sociology course offerings

COURSES

Sociology

151 **Sociological Principles and Perspectives** (3). F and S. This course is an introductory study of human social activity. The primary objectives of the course are: 1) to introduce students to origins, basic concepts, theories, and research methods of sociology, 2) to provide students with an overview of the structure, effects, promise, and limitations of our most basic social institutions, 3) to provide students with an overview of the nature of social organization, 4) to encourage students to think analytically and critically about the society in which they live, and 5) to introduce students to the traditions of Christian reflection on social life.

153 **Introduction to Cultural Anthropology** (3). F and S. This course involves the study of cultural diversity around the globe, both

historically and geographically. The course introduces the foundational elements of cultural anthropology including topics of field work, cultural relativism, ethnocentrism, participant observation, ethnography, ethnology as well as major anthropological theories. The course addresses the diversity, as well as commonality of cultural systems, both in time and space, through studying major components of cultural systems, such as kinship, religion, politics, and economics. Students are exposed to an awareness of their place within a particular cultural context, as well as their culture's place within a global and historical context.

210 **The Criminal Justice System** (3). S. A survey and analysis of law enforcement, the courts, and corrections with special attention given to the ethical, legal, and social issues that must be confronted when these components of the traditional criminal justice system are expected to bring about social justice to offenders, victims, and society in general. Goals of restoration and moral accountability are also addressed.

250 **Diversity and Inequality in the United States** (3). F and S. This course analyzes the social meanings of our various identities (i.e., race-ethnicity, class, and gender); how these identities affect our self-concepts; and the impact of these identities upon our social and societal relationships. The primary objectives of this course are to study the social definitions of gender, race, and class; to examine the impact of these social constructs on human behavior, identity, and interactions with other persons; to develop a sociological understanding of the nature of structured inequality, and patterns of discrimination; to become familiar with social-scientific methods appropriate for the studying of diversity and inequality; and to understand the promise and challenge of biblical reconciliation for seeing ourselves as image bearers of God and for easing the social tensions associated with diversity and inequality in the United States.

252 **African Diaspora in the Americas** (3). F, odd years. This course examines selected topics that have arisen in recent African Diaspora-focused research. Using a comparative model, this course investigates the experiences of Black people from a variety of societies and nations (such as Brazil, Cuba, Haiti, Jamaica, and the United State of America) in the Americas. This course begins with a presentation of a conceptual framework for understanding the African Diaspora in the Americas and includes a critical Christian perspective. Various themes will be addressed at the individual, community, and societal level using historical, ethnographic, and geo-political approaches.

253 **Intercultural Communication** (3). F and S. An examination of the anthropological principles relating to cross-cultural communication. This examination requires an extensive comparison of the components of cultural systems and the nature of cultural dynamics. The areas of application include government, business, peace corps, development, and mission work, with special emphasis on the last two. Special topics include developing an appropriate attitude regarding indigenous cultures and the management of culture shock. Also cross-listed Communication Arts and Sciences 253.

255 **Social Science Statistics** (4). F and S. This course is an introduction to statistics and computer application in one of the social sciences. Concepts and procedures taught include levels of measurement, measures of central tendency, correlation techniques, probability theory, and hypothesis tests. This course is intended to meet the core Mathematics requirement for students with declared majors in Sociology and Social Work. Sociology and Social Work majors usually take this course in the sophomore or junior year. Prerequisites: An introductory course in one of the social sciences (e.g., Sociology 151 or Psychology 151) and meeting the Calvin admission requirement in Mathematics.

302 **Urban Sociology** (3). * S. This course is an introduction to the purposes, problems, and prospects of cities in the United States and in other parts of the world. The theoretical portion of the course will introduce basic concepts of urban ecology and urban political economy. In the applied portion, functionalism and conflict theory will be addressed to help students to understand the interaction of social factors that produce change in cities and suburbs. The transformational theology of Abraham Kuyper will be used to focus a Christian perspective.

303 **Anthropology of Religion** (3). * S, odd years. This course takes a comparative approach to the study of religion — focusing on the universal characteristics of religious beliefs such as myth, ritual, and the sacred. Students will develop a critical understanding of the approach anthropology takes to the study of religion and will be encouraged to develop a critical understanding of that approach particularly from a faith perspective. Emphasis will also be given to grappling with the reality of personal faith in a global context of religious diversity, including the diversity in expression of Christianity.

304 **The Family** (3). F. An intensive culturally comparative and historical analysis of the family as an institution. The contemporary courtship, marriage, and divorce patterns of the American family are also discussed.

306 **Sociology of Deviance** (3). F, even years. An analysis of deviant behavior: its causes, manifestations, prevention, and programs of control. Special attention is given to the role of social norms in generating as well as controlling deviance. Emphasis is put on ways in which social structures generate and label deviance. Implications are drawn for various institutions, particularly the school and the church. Not offered 2007-2008.

308 **Demography and World Population Problems** (3). F, even years. This introduction to demographic analysis of society includes a consideration of the major demographic theories of population growth and how these contribute to an understanding of population explosion; a review of how the socio-cultural dimension of human society affects major sources of population growth (fertility, mortality, migration, and how variations in these reciprocally affect society); and an analysis of the causes and consequences of population size, distribution, and composition for human society. Not offered 2007-2008.

311 **Religion and Society** (3). *F. The course will focus on recognizing the social aspects of religion and thinking critically about what influences the ways in which people practice their faith and what role faith plays in shaping human behavior. Particular attention is paid to the North American experience of Christianity. We will examine beliefs, practices, organizations, and cultures from a sociological perspective, looking as well at the historical and philosophical underpinnings of the perspective and what that means for our study of religion. Not offered 2007-2008.

314 **Contemporary Social Problems** (3). F and S. The course will begin with a theoretical examination of social problems generally. Various contemporary social problems will be discussed with one selected for major emphasis.

315 **Sociology of Sport** (3). * S alternate years. A study of the social and social-psychological dynamics of sports in modern society. Areas receiving special attention are youth sports, interscholastic sports, and professional sports. Emphasis is put on describing and understanding sports participants and observers and the relationship of sport as an institution to the rest of social structure.

316 **Social Gerontology** (3). S. A cross-cultural examination of how various societies react toward the elderly. Specific substantive issues included are: Discrimination against the elderly, familial relationships, social security, nursing home services, housing needs, and employment opportunities. There is an analysis of proposed changes in American society which would give assistance to older adults.

317 **Death, Dying, and Bereavement** (3). *This course investigates death-related behavior in America and cross-culturally through the lens of various sociological perspectives, seeking to understand patterns of social interaction surrounding and giving meaning to dying, death, and bereavement. Topics include: Death meanings and anxiety, religion and death-related customs, the dying process, hospice as a social movement, bioethical and legal issues, the funeral industry and death rituals, and social understandings of the bereavement process. Not offered 2007-2008.

318 **Sociological Theory** (3). F. An assessment of sociological theory in terms of its historical development and current role in understanding human behavior. Particular attention is given to the function of theory in the research process. Direction is given to the student in the formulation of sociological hypotheses from data. Prerequisite: Sociology 151.

319 **Special Problems and Current Issues in Criminal Justice** (3). Concerted attention will be paid to a major criminal justice related issue or problem, focusing particularly on those for which a Reformed Christian sociological perspective is most strategic. Confronting the drug problem, and white collar crime are illustrations of these issues. Course may be taken two times in the study of different issues and problems for a total of 6 semester hours.

320 **Social Research** (3). F and S. An assessment of the nature of the research process as applied to the study of theoretical problems in social science. Students are guided in designing and conducting a research project, involving definition of the problem, consideration of appropriate methods, and the collection and analysis of data. Prerequisites: Sociology 151 and 255.

380 **Internship in Sociology** (3). F. Students are placed in an internship setting related to an area of sociological practice or research. Students work eight hours per week under the direction of an on-site supervisor and participate in regular seminar meetings conducted by the college instructor. Internship experiences will assist students in integrating previously acquired sociological knowledge and research skills in a particular setting. Each student will author a project that communicates learning throughout the internship. Prerequisites: Senior sociology major, completion of Sociology 151, 255, and completion of or concurrent registration in Sociology 318 and 320.

390 **Independent Study**.

395 **Sociology Integrative Seminar** (3). S. This course provides students with an opportunity to re-visit, at a more advanced level, the basic assumptions and concepts of the discipline of sociology; to explore the bearing of Christian faith, in particular a Reformed perspective, on the shaping of scholarly research; to consider what it means to practice sociology; and, in addition, students are challenged to synthesize, integrate, and assess what they have learned in sociology and to reflect on the role and contributions of the discipline in understanding current social issues in American culture. Prerequisites: Biblical Foundations I or Theological Foundations I, Developing a Christian Mind, Philosophical Foundations, Sociology 151, 255, and 318.

IDIS 205 **Societal Structures and Education** (3). F and S. An examination of the interaction between education and the other systems and institutions (e.g., political, economic, and cultural) that shape society. This course will examine how education is shaped by and is reshaping these systems and institutions. Particular attention will be given to the impact of race, class, and gender on schooling and society. Community-based research projects will challenge students to examine these issues in real-life contexts as well as introducing them to social science research methodology. Christian norms, such as social justice, will shape this critical analysis of the interaction between education and society. This class is appropriate for all students who are interested in education and society and meets a core requirement in the Societal Structures category. Credit for this course may be applied towards a Sociology major.

Graduate Courses

590 **Independent Study**. F, I, and S.

Social Work

240 **Introduction to Social Work and Social Welfare** (3). F and S. An introduction to the profession of social work and the field of social welfare. Attention is given to the development of social welfare as a social institution, including the development of philosophies, values, and attitudes, which influence the theory, policy, and practice of social work. Practice settings, professional roles, and value and ethical issues are also considered to increase awareness of the profession and aid students in considering social work as a career.

250 **Diversity and Inequality in the United States** (3). F and S. This course analyzes the social meanings of our various identities (i.e., race-ethnicity, class, and gender); how these identities affect our self-concepts; and the impact of these identities upon our social and societal relationships. The primary objectives of this course are to study the social definitions of gender, race, and class; to examine the impact of these social constructs on human behavior, identity, and interactions with other persons; to develop a sociological understanding of the nature of structured inequality, and patterns of discrimination; to become familiar

with social-scientific methods appropriate for the studying of diversity and inequality; and to understand the promise and challenge of biblical reconciliation for seeing ourselves as image bearers of God and for easing the social tensions associated with diversity and inequality in the United States.

255 **Social Science Statistics** (4). F and S. This course is an introduction to statistics and computer application in one of the social sciences. Concepts and procedures taught include levels of measurement, measures of central tendency, correlation techniques, probability theory, and hypothesis tests. This course is intended to meet the core Mathematics requirement for students with declared majors in Sociology and Social Work. Sociology and Social Work majors usually take this course in the sophomore or junior year. Prerequisites: An introductory course in one of the social sciences (e.g., Sociology 151 or Psychology 151) and meeting the Calvin admission requirement in Mathematics.

320 **Social Research.** (3). See Sociology 320 for description. Prerequisites: Sociology 151 and Social Work 240 and 255.

350 **Human Behavior and the Social Environment** (4). F and S. A study of the person in her/his environment using a systems-based ecological model of human behavior. Knowledge about persons as biological, psychological, social, cultural, and spiritual creatures is integrated as the "person" is followed through the life cycle. Theoretical frameworks from prerequisite courses are integrated to enable students to assess micro and macro influences on human behavior. Prerequisites: Biology 115, English 101, Psychology 151, Sociology 151, and Social Work 240 and 250.

360 **Social Welfare Policy Analysis** (3). F and S. A value-critical analysis and evaluation of social welfare policies and programs as responses to defined social problems in their historical, political, and economic contexts. Students examine the role of the direct provider of social services as a policy practitioner. Prerequisites: History core, SSNA core and cognate, Social Work 240.

370 **The Helping Interview** (3). F and S. A course to teach students the basic skills necessary to conduct a helping interview. Students participate in videotaped role plays. The course also contains contextual material about ethical issues, a Christian view of relationship and interviewing, and interviewing people from different backgrounds. Prerequisites: Social Work 240 and 350 (or concurrent enrollment).

371 **Generalist Practice With Individuals, Families, and Groups** (4). F. A study of generalist social work practice within an ecological and problem solving context. This course focuses on practice skills, interventions, and issues with individuals, families, and groups. Special attention is given to working with clients from different backgrounds. Prerequisite: Social Work 320, 350, 360. and 370.

372 **Generalist Practice With Organizations and Communities** (3). F and S. A study of generalist social work practice skills, interventions, and issues with organizations and communities. Prerequisite: Social Work 371, or concurrent enrollment in Social Work 371.

373 **Vulnerable Populations: Programs, Policies and Practices** (3). F and S. This course integrates social welfare policy analysis skills and generalist practice skills toward developing an understanding of social programs that serve population groups that are economically or otherwise at-risk (vulnerable populations). Prerequisite content in human diversity, policy, and practice is used to teach about current social programs intended to meet the needs of vulnerable groups such as abused children and their families and the persistently mentally ill. The course emphasizes how these programmatic approaches draw on several community support systems including the family, community and faith-based organizations, churches, and state and federal resources. Prerequisite: Social Work 360.

380 **Social Work Practicum** (5-F,S). F, I, and S. Students are placed in a community agency (minimum of 400 hours) under the supervision of a professional social worker. Students will engage in several social work roles and activities to continue to develop the knowledge, skills and values of generalist social work practice. Prerequisites: Previous or concurrent enrollment in Social Work 371, 372, 373, and 381 admission to the B.S.W. program, and satisfactory completion of the practicum admission process.

381 **Social Work Integrative Seminar**. (4). I. This course requires students to integrate the content of courses in the social work major and the practicum experience. Students draw on core concepts and principles from the profession and from the Christian faith as they discuss issues associated with professional role and identity. Prerequisites: Previous or concurrent enrollment in Social Work 371, 372, 373, and 380 admission to the B.S.W. program, and satisfactory completion of the practicum admission process.

390 **Independent Study**.

Spanish

Professors M. Bierling (chair), S. Clevenger, E. Miller, D. Zandstra
*Associate Professors *M. Pyper, C. Slagter, D. TenHuisen*
Assistant Professors O. Leder, C. McGrath, K. Miller, L. Rodrigues, M. Rodríguez, A. Tigchelaar

Core Requirements. Students must demonstrate competency in a world language that is equivalent to two years' study in college. Normally, this is demonstrated by successful completion of Spanish 202 or 203, or by examination. Students will be placed in classes at their level of ability as determined by a placement examination. It is also possible to fulfill the language requirement by completing four years of study in high school with a minimum grade of "C" each semester.

Major and Minor Requirements. A minimum grade of "C" (2.0) in Spanish 301 is required as a prerequisite for any concentration in the Spanish Department. Programs for students wishing to major or minor in Spanish are worked out individually with the appropriate departmental advisor.

D. Zandstra is the advisor for the secondary education programs in Spanish, and M. Pyper and M. Rodríguez are the advisors for the elementary education programs. M. Pyper and K. Miller advise the bilingual and ESL minors, and, in addition, E. Vander Lei (English) advises ESL minors.

SPANISH MAJOR (31-32 hours)

Spanish 301
Spanish 302
Spanish 308
Spanish 309
Spanish 340 or 341
Spanish 395
Advisor-approved Spanish semester abroad
Advisor-approved electives to reach a minimum of 31 hours

SPANISH MINOR (20 hours)

Spanish 301
Spanish 302
Spanish 308
Spanish 309
Advisor-approved Spanish interim or semester abroad
Advisor-approved electives to reach a minimum of 20 hours

SECONDARY EDUCATION MAJOR IN SPANISH (34-35 hours)

Spanish 301
Spanish 302
Spanish 308
Spanish 309
Spanish 340
Interdisciplinary 357
Interdisciplinary 359
Advisor-approved Spanish semester abroad
Advisor-approved electives to reach a minimum of 34 hours

SECONDARY EDUCATION MINOR IN SPANISH (23 hours)

Spanish 301
Spanish 302
Spanish 308
Spanish 309
Spanish 340
Interdisciplinary 357
Advisor-approved Spanish interim or semester abroad

K-12 SECONDARY TEACHING MAJOR IN SPANISH (37-38 hours)

Spanish 301
Spanish 302
Spanish 308
Spanish 309
Spanish 340
Interdisciplinary 356
Interdisciplinary 357
Interdisciplinary 359
Advisor-approved Spanish semester abroad
Advisor-approved electives to reach a minimum of 37 hours

ELEMENTARY EDUCATION MAJOR IN SPANISH (31-32 hours)

Spanish 301
Spanish 302
Spanish 308
Spanish 309
Spanish 340
Interdisciplinary 356
Advisor-approved Spanish semester abroad
Advisor-approved electives to reach a minimum of 31 hours

ELEMENTARY EDUCATION MINOR IN SPANISH (23 hours)

Spanish 301
Spanish 302
Spanish 308
Spanish 309
Spanish 340
Interdisciplinary 356
Advisor-approved Spanish interim or semester abroad

BILINGUAL EDUCATION MINOR (21 hours)

Spanish 310
Spanish 340
English 335
English 338
Interdisciplinary 205
Interdisciplinary 301/302 (concurrent with Education 302-303)
Education 303 (concurrent with Education 302 and IDIS 301/302)

Note that the bilingual education minor must be combined with the Spanish major. English competency is verified by successful completion of English 101 (minimum grade of C) and one course from CAS 101, 200, or 214. Spanish competency is verified by successful completion of the Spanish Department's proficiency exams.

ENGLISH AS A SECOND LANGUAGE EDUCATION MINOR (21 HOURS)

CAS 216
English 334 or Spanish 340
English 335
English 338
Interdisciplinary 356 or 357
Interdisciplinary 301/302 (concurrent with Education 302-303)
Education 303 (concurrent with Education 302 and IDIS 301/302)

Note that English competency is verified by successful completion of English 101 (minimum grade of C) and one course from CAS 101, 200, or 214. Students must also complete Calvin's foreign language core requirement. The ESL minor must be combined with a major concentration, even for elementary education.

ENGLISH AS A SECOND LANGUAGE: NON-EDUCATION MINOR (21 hours)

CAS 216
English 334 or Spanish 340
English 335
English 338
Interdisciplinary 301/302
Sociology 253
An approved elective

INFORMATION FOR EDUCATION STUDENTS

1. Students interested in the various teacher education programs in Spanish, bilingual education, or ESL should meet with the appropriate Spanish Department advisor as soon

as possible to declare their interest in a particular program and map out their four-year program.

2. *All students in the Spanish education and bilingual programs must successfully complete proficiency exams in both oral and written Spanish prior to applying for the semester of directed teaching (junior year).* The test for grammar and composition is given through the department. The oral proficiency test is available only through an outside agency. Information on the scheduling and cost of each test is available from the Spanish Department.

3. The semester of directed teaching in secondary Spanish is available only in the spring semester.

CREDIT/EXEMPTION EXAMS

Credit and/or exemption exams in the department will be given four times each year on the same dates as the proficiency examinations.

OFF-CAMPUS PROGRAMS

Spanish Studies in Spain. During the interim and spring semester, Calvin offers full-time core and advanced Spanish programs in Denia, Spain. Beginning Spanish students can complete the courses Spanish 101, 102, 201, and 202 to satisfy the college language requirement for the bachelor's degree, as well as earn 3 hours of interim credit. Advanced students take 15-17 semester hours towards a Spanish major or minor. All students live with Spanish families, participate in organized excursions, and attend classes on the campus of the Universidad Nacional de Educación a Distancia. Prerequisite for the advanced program: Spanish 301. The director for this program is D. TenHuisen.

Spanish Studies in Mexico. During the spring semester of 2008, Calvin will offer a one time advanced Spanish program for majors and minors in Mérida, México (in the Yucatán Peninsula). Intensive study of Spanish is combined with study of Mayan history and modern Mexican culture. Students live individually with Mexican families, attend classes, and participate in organized excursions. Students earn up to 14 hours of credit during the spring semester in courses such as advanced conversation, Latin American literature and culture, and ethnographic studies. Prerequisite: Spanish 301. The director of this program is O. Leder.

Spanish Studies in Honduras. During the last two weeks of August and the fall semester, Calvin offers an advanced Spanish program for majors and minors in Tegucigalpa, Honduras. Intensive study of Spanish is combined with an exploration of the meaning of faith in the developing world. Students live individually with Honduran families, participate in organized excursions, and attend classes on the campus of the Universidad Pedagógica Nacional Francisco Morazán. Students earn 15-17 semester hours of credit in courses such as advanced conversation, Latin American literature and culture, and international development. Prerequisite: Spanish 301. The director for this program is E. Miller.

Development Studies in Honduras. During the spring semester, this program in International Development Studies takes place in Tegucigalpa, Honduras. Students take courses in development studies (in English), as well as a language course for Spanish credit, normally from the following offerings: Spanish 202, 301, Latin American culture, or a literature course. The Spanish advisors for this program are O. Leder and E. Miller.

Spanish Interim in Yucatán (SPAN W80). Students in this January interim course spend three weeks immersed in Mexican culture and Spanish language in Mérida, Yucatán, living with families and attending daily lecture classes. Students also take excursions to Mayan ruins, attend religious and cultural events, and keep detailed journals. The instructor for the January 2008 interim is O. Leder.

May Term in Argentina: Language, Landscape, Legacy. This four-week course is designed to offer multiple perspectives on Argentina. Students spend two to three weeks in and around Buenos Aires in addition to excursions to Córdoba and Misiones (Iguazú Falls). They discuss readings and lectures and visit churches and points of cultural interest. All students are lodged with Argentine families. A journal, an on-site report, and a final essay are required. With advisor approval this course can count both as an interim and as three semester hours of elective credit to-

ward a program in History, in Spanish, or in Missions. Prerequisite: Spanish 202 or its equivalent. The instructor for this course is D. Zandstra. Not offered May 2008.

COURSES

Language Courses

101 **Elementary Spanish I** (4). F. An introductory course in oral and written Spanish.

102 **Elementary Spanish II** (4). S. A continuation of Spanish 101.

121/122 **Introductory/Intermediate Spanish** (4, 3). F and I. An intensive course during the fall semester and January interim for students who have had at least two years of Spanish in high school, but who, on the basis of a placement test, are not adequately prepared for 201. Students in this sequence finish the foreign language core requirement by taking Spanish 202 in the spring.

201 **Intermediate Spanish I** (4). F and SS. Review of essential grammatical structures and further training in spoken and written Spanish. Cultural and literary readings. Prerequisites: Spanish 102 or placement by examination.

202 **Intermediate Spanish II** (4). S and SS. This final core class is a continuation of Spanish 201 or 121/122. Special sections in Medical Spanish or for CCE credit.

203 **Advanced Intermediate Spanish** (4). F. This is a final core course in Spanish, offered in the fall and intended specifically for students who have successfully completed at least three years of high school Spanish. There is an accelerated review of essential grammar topics, as well as a study of literary and cultural readings.

301 **Advanced Grammar, Composition, and Conversation I** (3). F and S. This introduction and gateway to the major or minor sequences focuses on the improvement of speaking and writing skills through vocabulary acquisition and the honing of grammatical accuracy. Extensive practice in oral and written communication. Prerequisite: Spanish 202 or 203 or equivalent.

302 **Advanced Grammar, Composition, and Conversation II** (3). F and S. A continuation of Spanish 301.

340 **Spanish Phonology and Dialectology** (3). *F. An introduction to Spanish linguistics, concentrating on the sounds of Spanish (phonetics and phonology), with appropriate pronunciation practice and contrasts with English pronunciation. Included are units on the history of the Spanish language and the major dialects spoken today. Prerequisite: Spanish 301.

341 **Advanced Spanish Syntax and Sociolinguistics** (3). *S. An examination of the differences and similarities between English and Spanish morphology, syntax, and semantics, in order to improve students' communication skills and to generate a deeper understanding of the complex nature of the human language system. Specific connections will be made to first and second language acquisition, bilingualism, Spanish/English dialects, sociolinguistics, psycholinguistics, and language disorders. Prerequisite: Spanish 302.

W81 Spanish Grammar Through Translation (3). I. Translation is an activity that combines the intellectual with the practical. Using a wide variety of texts and exercises, the focus is on lexical and grammatical detail in order to produce acceptable translations. Although this course will not produce professional translators, it provides interesting opportunities to use and improve Spanish language skills. Evaluation is based on daily written translations and a final exam. Prerequisite: Spanish 301.

Culture and Literature Courses

308 **Introduction to the Hispanic World I** (4). F and S. This course introduces students to the major developments of the Hispanic World from antiquity to the independence of the American colonies in the early 19th century. Discussions center on the relationship of major literary and artistic works to economic, political, religious, and social developments in the Iberian Peninsula and the Castilian colonies in the Americas. This course is normally the first in a sequence of two and is designed to prepare students for advanced-level culture and literature courses in the Spanish Department. Oral presentations and research paper are required. Prerequisite: Spanish 301.

309 **Introduction to the Hispanic World II** (4). F and S. This course introduces students

to major developments of the Hispanic World from the independence of the Spanish American colonies to the present day. Discussions center on the relationship of major literary and artistic works to economic, political, religious, and social developments in Spain and Spanish America. In addition, students develop their skills in reading and evaluating literature in a second language through representative texts, and they sharpen their skills in critical writing and analysis. This course is normally the second course in a sequence of two and is designed to prepare students for advanced-level culture and literature courses in the Spanish Department. Oral presentations and research paper are required. Prerequisites: Spanish 301 and 308, or permission of the instructor.

310 **Hispanic Culture in the United States** (3). *S. A study of the history and culture of Hispanic groups in the United States, their political, social, and religious institutions, and their value systems. The course is designed to assist students in understanding the cultural contributions of each Hispanic group within the broader American culture. Reading materials include literary and non-literary sources. Prerequisite: Spanish 301 or permission of the instructor.

361 **Colonial Latin American Literature** (3). *F. The blending of indigenous, European, and African cultures during the colonial period formed and created Latin America. This course focuses on the literature of colonial Latin America (1492-ca. 1820), as well as the historical and cultural context that produced it. While many different genres and authors are examined, special emphasis is placed on the transatlantic and hybrid nature of colonial texts. An oral presentation and a research paper are required. Aside from the history text on colonial Latin America, all readings will be in Spanish. Prerequisite: Spanish 308 and 309, or permission of the instructor.

362 **Latin American Literature from Pre-Modernism to 1945** (3). *F. This course focuses on the literature of Latin America from Pre-Modernism to 1945. The following genres are analyzed: Pre-Modernist poetry, short story, and essay; Modernist poetry, short story, and essay; poetry and short story of the Vanguardia. Oral presentations and research papers are required. Prerequisite: Spanish 308 and 309, or permission of the instructor. Not offered 2007-2008.

363 **Contemporary Latin American Literature** (3). * F. This course focuses on the recent literature of Latin America. The following genres are analyzed: contemporary novels, poetry, and short stories. Oral presentations and research papers are required. Prerequisite: Spanish 308 and 309, or permission of the instructor. Not offered 2007-2008.

366 **Spanish Literature from the Middle Ages to the Renaissance** (3). *S. The course introduces students to the world of Medieval Spain through its literature. It will explore the ways in which this literature both reflects and impacts the culture from which it comes. Through a close reading of a few works, the values and morals that shaped medieval society are compared and contrasted to the values held today. Daily homework, an oral presentation and a final research paper are required. Prerequisite: Spanish 308 and 309, or permission of the instructor.

367 **Spanish Literature of the Golden Age** (3). *S. This course focuses on the literature of the sixteenth and seventeenth centuries. The following genres are analyzed: Renaissance and Baroque poetry, drama of the Lope and Calderón cycles, the origins of the modern Spanish novel, and the literature of the Counter-Reformation. Oral presentations and research papers are required. Prerequisite: Spanish 308 and 309, or permission of the instructor. Not offered 2007-2008.

368 **Spanish Literature from the Eighteenth Century to the Present** (3). *S. This course focuses on the Spanish literature of the eighteenth century to the present. The following genres are analyzed: Neoclassic drama, Romantic drama and poetry, essays and poetry of the Generation of '98, and twentieth century poetry, drama, and novel. Oral presentations and research papers are required. Prerequisite: Spanish 308 and 309, or permission of the instructor. Not offered 2007-2008.

370 **Advanced Cultural Topics** (3). *F and S. Through film, music, art, culture, journalistic interviews, history, and literature, this course fosters a deeper understanding of a specific theme or issue in Hispanic culture.

Taught in Spanish. Prerequisite: Spanish 308 or 309. Students may repeat this course if the topic is different.

390 **Independent Study**. *F, I, S, and SS. Prerequisite: Permission of the department chair.

395 **Palabra y mundo** (3). *F and S. As the capstone in the Spanish departmental major, this integrative studies course is designed to provide an opportunity for students to revisit, at a more advanced level, the literature, culture, history, and language studied during their time at Calvin and to explore ways in which their education has prepared them to engage with contemporary international culture. Students examine and critically reflect on the ethical, religious, and vocational implications of what they have learned. Prerequisites: DCM, Philosophical Foundations, Biblical or Theological Foundations I, Spanish 308 and 309, and at least junior standing.

Vocational Emphasis

320 **Business Spanish** (3). * I, alternate years. An introduction to the terminology and standard forms of oral and written communication in Spanish relating to the fields of business and economics. This course also considers the cultural and economic context of business practices in the Hispanic world. Designed for advanced students of Spanish. Prerequisite: Spanish 301.

W82 **Spanish for Healthcare Workers/Professionals** (3). I, alternate years. An introduction to the terminology and cultural rhetoric of oral and written communication in Spanish relating to the fields of medicine and social work. The course helps students develop language skills and increase cultural awareness of healthcare practices and needs of the patient or client of Hispanic background. Spanish grammar is reviewed while discussing medical and cultural issues, body language, and cross-cultural communications. Students are evaluated by means of in-class presentations/projects, vocabulary quizzes, unit tests, and a final paper or examination. Prerequisites: Spanish 202/203, or permission of instructor. Not offered Interim 2008.

Education Courses

IDIS 301 **Bilingual and ESL Education for Elementary Teachers** (3). *F. This course prepares students to teach in classrooms where English is the second language, helping them bring their knowledge of second language acquisition to elementary classroom settings. In this course students learn to recognize linguistic, cognitive, affective, and social factors that influence the acquisition of a second language. Course topics include teaching in content areas, classroom methods, curriculum design, and assessment. For students in the education program, concurrent registration in Education 302/303 is required. Field experience also required for non-education students.

IDIS 302 **Bilingual and ESL Education for Secondary Teachers** (3). *F. This course prepares students to teach in classrooms where English is the second language, helping them bring their knowledge of second language acquisition to secondary classroom settings. In this course students learn to recognize linguistic, cognitive, affective, and social factors that influence the acquisition of a second language. Course topics include teaching in content areas, classroom methods, curriculum design, and assessment. For students in the education program, concurrent registration in Education 302/303 is required. Field experience also required for non-education students.

IDIS 356 **Introduction to Elementary World-Languages Pedagogy** (3). *F and I. Theory and practice of teaching world languages in the elementary school. Study of language skill development, second language acquisition, methodologies, curricula, and programs. Off-campus school visits for observation and aiding experience. Should be taken in the junior or senior year, prior to student teaching. Required for elementary certification in world languages, including ESL, and the K-12 secondary major. Prerequisite: completion of or concurrent registration in Education 302/303.

IDIS 357 **Introduction to Secondary World-Languages Pedagogy** (3). *F. An introduction to the major principles and practices of teaching world languages, offering a study of various methodologies and the major con-

troversies associated with them. The course explores how a Christian approach to education affects second-language pedagogy and how this pedagogy interacts with the language learner's personal growth. It also introduces the prospective educator to the teaching of the basic skills, to issues in evaluation and assessment, and to the use of technologies in the language classroom. This course should be taken in the junior or senior year, prior to student teaching. Required for secondary certification in world languages, including the ESL secondary minor. Prerequisite: completion of or concurrent registration in Education 302/303.

SPAN 358 **Aiding in the Foreign Language Classroom** (3). I. Students participating in this seminar plan and facilitate small group sessions for Spanish 122. Morning activities include meeting with other aides and the professor, observing master teachers, and aiding master teachers in teaching. Afternoon activities include leading sessions with Spanish 122 students and planning lessons, materials, and activities under the supervision of the professor. Students will be evaluated based on their competency in the Spanish language, professional evaluations of teaching sessions and lesson plans/materials, participation in class discussions, daily journals, and an oral presentation. Prerequisite: Spanish 301 with a grade of "B" or better.

IDIS 359 **Seminar in Secondary World-Languages Pedagogy** (3). *S. A seminar reinforcing the major principles and practices of world-languages pedagogy on the secondary level for students during their semester of directed teaching, to be taken concurrently with Education 346. This course provides opportunities for collaborative work on putting theoretical and pedagogical matters of immediate concern into a practical framework. Prerequisites: Education 302/303 and successful completion of departmental proficiency exams.

Urban Studies

An interdisciplinary minor, Urban Studies focuses on urban issues and locates them within a Christian worldview. The minor consists of a curriculum of six courses, one of which must be Sociology 302: Urban Sociology. Remaining course work will be dependent on the student's interests and choice of track. The minor includes three separate tracks to more specifically serve students of various majors and interests.

THE MINOR REQUIRES:

1. Sociology 302
2. One of the following tracks as listed below;

TRACK 1:
URBAN SOCIAL DEVELOPMENT

Sociology 250: Inequality and Diversity
Philosophy 207: Justice and the Common Good
History 356: US Social and Cultural History

TRACK 2:
THE BUILT ENVIRONMENT

Architecture 202: Architectural History II
Environmental Studies 210: Human Modification of the Global Environment
Geography 310: Urban Geography

TRACK 3:
URBAN POLICY

Political Science 208: Urban Politics
Political Science 202: American State and Local Politics
Economics 330: Urban Regional Economies or Social Work 360: Social Welfare Policy Analysis

3. Two additional Urban Studies courses drawn from the following:

Architecture 202: Architectural History II
Communication Arts and Sciences 303: Community-based Drama
Economics 330: Urban Regional Economies
Environmental Studies 210: Human Modification of the Global Environment
Geography 310: Urban Geography
Geography 351: Introduction to Urban and Regional Planning
History 356: US Social and Cultural History
History 357: US Economic History
Philosophy 207: Justice and the Common Good
Political Science 202: American State and Local Politics
Political Science 208: Urban Politics
Sociology 250: Inequality and Diversity in the US
Social Work 360: Social Welfare Policy Analysis
Spanish 310: Hispanic Culture in the US

One approved interim course will be allowed (these will be approved on an *ad hoc* basis by members of the minor's governing committee).

Special topics courses and independent studies are allowed with the permission of the *ad hoc* Committee for an Urban Studies Minor. Substitutions for specific classes may also be allowed with the permission of the committee.

Students may also receive credit for internships and off-campus programs (e.g.: Chicago Semester) for up to six credits. To receive such credit, a student must receive prior approval from the ad hoc Committee for an Urban Studies Minor.

Youth Ministry Leadership

An interdisciplinary minor, the Youth Ministry Minor focuses on preparing students for all types of youth ministry in church-based settings and parachurch organizations. Courses and advising are based on the Bible and historic Christian theology, with an emphasis on Reformed theology. The minor, which may be taken in conjunction with a major in any field, consists of seven courses comprising a minimum of 19 semester hours of credit. The amount of overlap between the major and the minor will follow the standards outlined in the college catalog. Youth Ministry Minor programs must be approved by the director who confers with the supervising committee for the minor. The program director is L. Elliott of the Education Department.

YOUTH MINISTRY LEADERSHIP MINOR

Interdisciplinary 374
Interdisciplinary 380
One psychology course from Psychology 207 or 322
Education 102
One Intermediate Biblical studies course: Religion 211-214; 221-224
One Intermediate Theological studies course: Religion 230-237; 241-244, 251, 295
One elective from the following:
Business 380
CAS 101, 140, 143, 240, 253, 260
Education 309
HPERDS 203, 305, 312
IDIS 205
Psychology 220, 222, 301
Social Work 350
Sociology 250, 302, 304
An elective alternative chosen with the program advisor

COURSES

IDIS 374 Models of Ministry to Youth (2). F. This course provides a forum for students, youth ministry practitioners, and theological

scholars to investigate and evaluate a variety of models for the church's ministry to the youth of the church and community. Students, practitioners, and scholars will employ a variety of methods including, but not limited to, a field trip, presentations by nationally recognized youth ministry experts, and critical theological reflection on key issues associated with youth ministry. The course is specially designed for cross registration with students from Calvin College and Calvin Theological Seminary. Prerequisites: junior or senior status. It follows the academic calendar of Calvin Theological Seminary where the course is taught.

IDIS 380 **Youth Ministry Internship** (4). F and S. Students work in a local church where they receive an appointment to conduct specific responsibilities in youth ministry usually related to the education of middle school and/or high school young people. Students will work a minimum of eight hours per week under the supervision of an on-site supervisor and participate in regular seminar meetings conducted by the college youth ministry advisor. Assistance will be given to students for locating an internship. Those desiring to find their own internship need prior approval from a youth ministry advisor. Internship experiences equip the students with the ability to integrate educational theory, and theoretical understandings from related disciplines, with the Bible and historic Christian and in particular Reformed theology in the practice of contemporary church-based youth ministry. Each student will produce a project that demonstrates his or her competency in such learning transfer related to specific aspects of youth ministry experienced in the internship and will also meet with the seminar instructor for an oral evaluation. Prerequisites: junior or senior class level; completion of IDIS 374 or Psychology 322; Education 102 or the permission of the instructor.

Financial Information

Tuition and Fees

Tuition for the academic year is $21,460; on-campus housing with a 21 meal plan is $7,460; the required Technology Access & Student Activity fee is $225, and the estimated cost for textbooks and classroom supplies is $810.

Students taking fewer than twelve credit hours in a semester will be charged on a per-credit hour basis. Those taking more than 17 credit hours in a semester will be charged at the per-credit hour rate for the additional courses. The Interim is considered a separate course for which there is no charge if the student completes at least 12 credit hours in either semester, unless the student enrolls in more than 4 credit hours during the Interim.

Most Calvin College students receive financial assistance from the grant and scholarship programs. A special grant-in-aid, called a Denominational Grant is available to members of the Christian Reformed Church in North America to reflect the direct support such students and their families provide the College through the church.

Basic Charges

Tuition, full-time load (12-17 total credit hours):	$21,460
Tuition, per-credit hour rates:	
1-5 total hours (per credit hour)	510
6-11 total hours (per credit hour)	790
18th hour and above (per credit hour)	510
Tuition, auditing, per credit hour: 1/2 the normal per credit hour rate as described below	
Tuition, Nursing Additional Course Charge per semester	900
On-campus room and 21 meal plan (academic year)	7,460
Summer tuition, per credit hour	510
Interim Course Charge (per credit hour over 4)	510

Deposits

Enrollment deposit (U.S. & Canadian Students)	300
Enrollment deposit (International Students)	4,000

Special Fees

Application fee (online)	$35
Application fee (paper)	50
Off-campus program fee	150
Examination fee (course credit)	60
Examination fee (exemption)	25
Housing Application Fee (not refundable)	25
Individual Music Instruction	
One hour weekly lesson per semester	510
Half-hour weekly lesson per semester	255
For 200-300 level concentrates, 2 credits per semester	385
For 300 level concentrates, 3 credits per semester	425
Transcript fee	5
Vehicle Registration Fee	35
Visitor fee, per course	55
Technology Access Fee & Student Activity Fee (per semester)	112.50
Orientation Fee (new students only: 1st year & transfer)	125
Parent Orientation fee	50
International Student Orientation Fee	200
International Parent Orientation Fee	100
Returned check fee	20
Career Services fee (1st year students and transfers)	40

Payments for tuition, room and board are to be made as per the following payment schedule unless payment is rendered in full *at the beginning of ea*ch semester.

Due Date	Tuition, Technology Access & Student Activity Fee	Room & Board		
1st Semester		***21 Meals***	***15 Meals***	***10 Meals***
August 31, 2007	$3,614	$1,243	$1,208	$1,153
October 19, 2007	3,614	1,243	1,208	1,153
November 20, 2007	3,615	1,244	1,209	1,154
Total for 1st Semester	$10,843	$3,730	$3,625	$3,460
2nd Semester				
January 4, 2008	$3,614	$1,243	$1,208	$1,153
March 14, 2008	3,614	1,243	1,208	1,153
April 21, 2008	3,614	1,244	1,209	1,154
Total for 2nd Semester	$10,842	$3,730	$3,625	$3,460
Academic Year	$21,685	$7,460	$7,250	$6,920

Note: There is no interim charge for regular on-campus courses if a student maintains twelve semester hours in either the first semester or the second semester unless the student exceeds the four credit limit set for the interim. If a student maintains eleven semester hours in both the first and second semester, the regular semester hour interim tuition charge will be discounted by 25%. Otherwise, students will be charged the regular per semester hour charge for interim courses. Course fees and off-campus travel costs are in addition to any interim tuition charge.

Calvin administers all billing statements electronically. Students are advised via email that their statements are available to them on KnightVision. Additionally, Students may give permission for others to receive copies of their statements though Calvin's E-Statement Subscription service in Knightvision. Each time a new statement is generated, a courtesy copy is then sent via e-mail to a list of subscribers designated by the student. E-Statement copies will continue to be sent each statement period until the student removes the subscriber from the service.

The balance for total tuition, room and board charges are reduced by all financial aid credits a student receives for the semester. Any balance due from the student will be divided into three payments. The three payments will be due as per the payment schedule due dates. Accounts not paid on time are subject to a late payment fee of 1% per payment period on the outstanding balance. Students whose accounts are not paid according to schedule will be prohibited from registering for future classes. Transcripts are not issued for students with past due accounts. The ability to charge miscellaneous expenses to a campus billing account will also be suspended. Transcripts are not issued for students with past due accounts.

Any charges or credits not directly related to the student's tuition, room or board are placed on a separate billing statement called the Statement of Miscellaneous Charges. This billing statement is posted on the students online KnightVision account on a monthly basis and all charges are due in full on the 1st of each month.

Students are required to maintain accurate local and permanent home billing addresses. Should a student's account become delinquent, the account may be placed with an outside collection agency. All fees associated with the collection process shall be the responsibility of the student and will be added to the student's total account balance.

An enrollment deposit is required of all enrolling first-year, transfer and re-admitted students. This deposit serves as a confirmation of the student's plan to enroll and is credited to the Statement of Miscellaneous Charges and is used as payment towards the orientation fee, housing application fee, (for students living on campus) Career Services Fee and any other charges the student might put on this account. First-year students must pay this deposit by May 1. The due date for transfer students is June 1. The enrollment deposit is not refundable after the due date. Former students who have been readmitted to the college must pay their enrollment deposit by August 1.

Dually enrolled students are individuals who are still attending high school, but are concurrently enrolled in college courses. Dually enrolled students may take up to two college courses per semester at a reduced rate. For 2007-2008, the dually enrolled tuition rate is $255 per registered credit. Dually enrolled students are also permitted to take one Interim course at the reduced rate. Dually enrolled students who are taking more than 8 credits in a semester will be charged $790 per credit hour for each additional course.

Tuition charges for dually enrolled students are due in full at the beginning of each semester.

Course Audits

Students with 0 to 5 non-audit total credits who choose to audit a class will be charged at $255 per credit hour for the audited course.

Students with 6 to 11 non-audit total credits who choose to audit a class will be charged at $395 per credit hour for the audited course.

Students with more than 17 non-audit total credits who choose to audit a class will be charged at $255 per credit hour for the audited course that exceeds the semester credit limit.

Students with more than 4 credits during the interim will be charged $255 per credit hour for the audited course that exceeds the interim credit limit.

Check Cashing Policy

Students may cash personal and payroll checks upon presentation of a valid Calvin College ID card. Checks may not exceed $200.00 and must be made payable to "Cash" or to the person cashing the check. Cashing of third party checks is not permitted. Students who present a Canadian funds check for cash will be charged a $5.00 service fee per check.

A $20 charge will be assessed on all checks returned by the bank. In addition, check cashing privileges will be subject to suspension if three checks are returned during any nine-month period. Check cashing privileges will also be suspended if a student has an unsatisfactory financial account balance with Calvin College.

All checks that are returned by the bank will automatically be deposited a 2nd time unless prohibited by the payer's banking institution.

Calvin College does not accept post-dated checks. All checks, regardless of date, will be deposited upon receipt.

Institutional Withdrawals

If you discontinue your enrollment before completing 60% of a semester, your financial aid eligibility for the semester will be reevaluated based on your revised tuition charges and the period of time you were enrolled. You may be required to return a portion of the aid you originally received to the appropriate programs. A calculation will be made based on your official withdrawal date and the resulting revised tuition charges.

Tuition charges for students withdrawing from the College will be refunded as follows:

Calendar days 1-10 100%
Calendar days 11-24 80%
Calendar days 25-31 60%
Calendar days 32-38 40%
After 38 calendar days 0%

Return of funds to aid programs is as follows:

Federal Title IV Aid—If a student withdraws from the institution (discontinues) before completing 60 percent of the semester, the institution must determine the percentage of Federal Title IV assistance the student has earned. The percent is determined by dividing the total number of calendar days in the semester into the number of calendar days completed as of the withdrawal date. Any unearned amount must be returned to the Federal Title IV program(s).

State of Michigan Aid—The reduction in the state award is calculated on the percent of tuition and fees originally paid by the state award. This percent is applied to the revised tuition charges (based on the withdrawal date) and results in the amount of the original state award that the student retains. The remaining amount is returned to the state.

Institutional Aid—For students withdrawing from the institution, the reduction in institutional aid is based on the percent of tuition and fees originally paid by the total of all Calvin awarded grants and scholarships. The percent is applied to the revised tuition charges (based on the withdrawal date) and results in a reduced amount of institutional aid.

Students considering withdrawing who are concerned about the effect on their financial aid are encouraged to contact the Office of Scholarships and Financial Aid.

The Financial Services Office will issue a check to the student for any credit balance remaining on their account after all charges have been paid and refunds have been made. If a cash disbursement has been made to a student before discontinuing to pay for off-campus living, or other educationally related expenses, the Office of Scholarships and Financial Aid will determine whether repayment of a portion of the cash disbursed is required and notify the student if there has been an overpayment that needs to be repaid. Upon collection, the overpayment will be returned to the appropriate financial aid program(s).

Students withdrawing from one or more courses, but not discontinuing, will have their tuition charges for those courses adjusted. Financial aid will be reviewed and will likely be reduced based on the revised tuition charges.

Room and board charges will be prorated over the entire semester for students who leave on-campus housing during the semester.

All other charges such as, but not limited to, laboratory fees, art material fees, application fees, and health insurance fees are non-refundable.

Scholarships and Financial Aid

Calvin participates in all federal and state student financial aid programs for which our students are eligible. In addition, Calvin sponsors a number of its own programs, which are coordinated with and used to supplement federal and state programs. Programs sponsored by the College include: (1) academic scholarships designed to recognize students with excellent academic ability and to encourage superior academic work, (2) need-based scholarships and grants for students who are not eligible for state or federal grants or who need more scholarship and grant assistance than state and federal programs provide, (3) denominational grants which recognize regular contributions from the Christian Reformed Church to Calvin through denominational ministry shares.

Information about application procedures for financial aid is included with admission information for prospective students and is made available to current students each year. Those who apply for need-based financial aid receive an award notice indicating the aid for which they are eligible, including grants, scholarships, loans, and student employment. Questions or requests for additional information regarding scholarships and financial aid should be directed to the Office of Admissions and Financial Aid.

Enrollment Requirements for Financial Aid

Most scholarship and financial aid programs require at least half time enrollment (6 credit hours per semester for undergraduates and 4.5 for graduate students). There are three exceptions to this: 1) the Federal Pell Grant, which is available for those who meet the federal need criteria, 2) the Michigan Adult Part-Time Grant, which is available to students taking at least 3 but fewer than 12 credit hours per semester, and 3) the Denominational Grant, which is based on the number of hours for which a student is registered.

Minimum enrollment for academic scholarships awarded by Calvin is 6 credit hours per semester for undergraduates and 4.5 for graduate students, although many of the named scholarships assume full time enrollment. Students who enroll at least half time but less than full time can be considered for financial aid but usually in reduced amounts. Audited classes are excluded in determining aid eligibility.

Academic Progress Requirements for Financial Aid

Students who receive financial aid must meet minimum academic standards to continue to be eligible for financial aid. These standards are established to encourage students to complete courses for which aid is received and to progress toward degree completion. The standards are similar to those used for academic probation and dismissal. They apply to students who are currently attending Calvin or have attended Calvin previously and are applying for aid for the first time, as well as to those applying for renewal of aid.

Programs Affected – The programs to which these standards apply are: Federal Pell Grants, Federal Supplemental Educational Opportunity Grants, Federal Academic Competitiveness Grant, Federal National SMART Grant, Federal Perkins Loans, Federal Direct Loans, Federal Direct PLUS Loans, Federal and State Work-Study Employment, Michigan Competitive Scholarships and Tuition Grants, Michigan Adult Part-Time Grants, MI-Loans, Calvin Scholarships, Calvin Grants, Calvin Loans, and some sources of private funding.

Measurement of Progress – Academic progress is measured by 1) a minimum cumulative grade point average needed for continued enrollment, and 2) the number of credit hours earned at Calvin in relation to the number of credit hours attempted. The requirements based on the number of credit hours attempted are as follows:

Number of Credit Hours Attempted	Percent Completion Required	Cumulative GPA Required
16 or fewer	66%	1.00
17 – 31	66%	1.30
32 – 49	68%	1.45
50 – 67	70%	1.60
68 – 85	72%	1.75
86 – 104	74%	1.90
105 – 123	77%	2.00
124 or more	80%	2.00

Notes:

1. The number of credit hours attempted is the number of hours for which a student is registered at the beginning of the second week of classes, not the number for which a student is registered at the end of the semester.
2. In calculating the percent completed, Academic Service courses and transfer credits are not counted in the number of credits attempted or earned, nor are they counted in the cumulative grade point average.
3. Courses that are repeated are counted in the number of courses attempted but not in the number of credits earned.

In addition, financial aid is not available to undergraduate students who have attempted more than 155 credit hours, including transfer credits, or to graduate students who have attempted more than 40 credit hours. A student who is denied financial aid because his/her total attempted credit hours exceed these amounts may be considered for additional financial aid if (s)he changed majors or programs. The appeal procedures listed below should be followed to request reinstatement of financial aid eligibility.

Evaluating Progress – Academic progress is evaluated at the end of each academic year to determine eligibility for the following year. Students who have not earned the number of credit hours required or the minimum grade point average required at the end of second semester based on the number of credits attempted are not eligible for aid for subsequent semesters in the programs listed above. There are, however, some circumstances under which the requirements can be adjusted, or the student can receive aid on probation for a semester or a year if the requirements are not met. These are as follows:

1. The student is making up incompletes.
2. There were extenuating circumstances, such as illness or a death in the family, that prevented the student from earning the number of credits required.
3. The student discontinued after the beginning of the second week of classes because of extenuating circumstances.

Appeals – Students who fail to make satisfactory progress and have extenuating circumstances that should be taken into consideration should contact the Office of Admissions and Financial Aid. Those who are denied financial aid because of failure to make satisfactory progress may appeal the decision to the Committee on Scholarships and Financial Aid, whose decision is final.

Denominational Grants

Students whose families are members of the Christian Reformed Church and who contribute regularly to Calvin through denominational ministry shares receive a Denominational Grant. The amount of the grant is determined in part by the location of the student's home.

The home of an unmarried student under 24 years of age is considered to be that of his or her parents. If a student's parents are not members of the denomination, the grant is based on the location of the Christian Reformed Church of which the student is a member. Students who are married or 24 or older receive the grant based on their permanent residence.

Out-of-state students who meet the residency requirements for the Michigan Competitive Scholarship or Tuition Grant are considered Michigan residents for purposes of the Denominational Grant. When the need of a student is met by the Michigan Competitive Scholarship or Tuition Grant, the Denominational Grant is reduced to keep the total amount of aid within the maximum permitted by state regulations.

The Denominational Grants for 2007-2008

	Grant per semester hour, if paying by the semester hour	*Grant per semester, if paying full tuition*
For undergraduates enrolled at least half time		
Michigan students	$30	$375
Students from Illinois, Indiana, Ohio, Wisconsin, and Ontario, Canada	$40	$500
Students from other states, provinces, and countries	$50	$625
For undergraduates enrolled less than half time		
Michigan students	$20	
Students from Illinois, Indiana, Ohio, Wisconsin, and Ontario, Canada	$25	
Students from other states, provinces, and countries	$30	
For Adult Learners enrolled less than half time	$20	
For Graduate Students	$15	
Summer Rates		
For Undergraduate Students	$20	
For Graduate Students	$15	

Calvin Scholarships

Scholarships are awarded to incoming students to encourage good students who are likely to do superior work to enroll at Calvin; and to upper-class students to encourage superior academic performance. Most scholarships are granted on the basis of the student's academic record and potential; but in some cases other factors such as program of study, financial need, and other designated criteria are taken into consideration. More than 1,600 scholarships are awarded annually to first-year admitted students. Individuals may be considered for a named scholarship or departmental scholarship in addition to one of the Calvin merit-based scholarships.

Calvin Merit-Based Scholarships

Merit-based scholarships are awarded to top students as a way to recognize and encourage academic excellence. More than 75% of first-year admitted students are awarded a renewable, merit-based scholarship. Calvin's merit-based scholarships are awarded based on a student's grade point average and standardized test scores. Calvin does not require the writing sections of the SAT or ACT. In addition, information from the admission application regarding the extent and quality of a student's extracurricular involvements, leadership experience, and honors received is evaluated.

Students are automatically considered for these scholarships at the time of admission. The Scholarship Committee begins its selection process in November of each year and continues to make awards on a rolling basis. Maximum consideration is given to students admitted to Calvin by February 1.

The Calvin National Merit Scholarship is available for a total of four years, as long as the recipient is continuously enrolled at Calvin. The Trustee, Presidential, Dean's, Faculty Honors, Honors, and Knollcrest Scholarships are available for up to five years if the recipient has the cumulative grade point average required. The grade point averages required for renewal are: 3.50 for the Trustee and Presidential Scholarship, 3.40 for the Dean's Scholarship, 3.30 for the Faculty Honors Scholarship, 3.20 for the Honors Scholarship, and 3.00 for the Knollcrest Scholarship.

Trustee and Presidential Scholarship recipients with a grade point average between 3.40 and 3.49 will receive the Dean's Scholarship for the following year; Trustee, Presidential and Dean's Scholarship recipients with a grade point average between 3.30 and 3.39 will have their scholarships renewed as Faculty Honors Scholarships; Trustee, Presidential, Dean's, and Faculty Honors Scholarship recipients with a grade point average between 3.20 and 3.29 will have their scholarships renewed as Honors Scholarships; and Trustee, Presidential, Dean's, Faculty Honors and Honors Scholarship recipients with a grade point average between 3.00 and 3.19 will have their scholarships renewed as Knollcrest scholarships. The grade point average used to determine renewal is the cumulative grade point average at the end of second semester for first-year students and the cumulative grade point average at the end of the spring interim for other students. Scholarship renewal requirements and amounts for students starting Calvin prior to fall of 2007 are renewed based on the original amount received and renewal requirements.

Calvin National Merit Scholarships Scholarships totaling $10,000 per year are awarded to all National Merit Finalists who designate Calvin as their first choice college with the National Merit Corporation. A Calvin National Merit Scholarship is awarded to those not selected to receive another scholarship through the National Merit Corporation. Students who meet the above requirements and receive an award through the National Merit Corporation will have this award supplemented by Calvin so that they receive a total of $10,000 as a National Merit scholar. These scholarships are available for a total of four years. Over 40 National Merit Finalists were admitted to Calvin for the fall of 2007.

Calvin Trustee Scholarships Scholarships of $10,000 are awarded to a select number of top scholarship candidates not select-

ed for a National Merit Scholarship. This scholarship is available for up to five years if the recipient maintains a Calvin grade point average of 3.50. The typical profile of students considered for this scholarship included a grade point average of 3.95 and either an ACT composite score of 30 or a combined critical reading/math SAT score of 1340. Trustee Scholarships were awarded to students with exceptional, high quality involvements, leadership and honors in school, church, and community.

Calvin Presidential Scholarships Scholarships of up to $6,000 are awarded to top scholarship candidates who are not selected to receive a Calvin National Merit or Trustee scholarship. This scholarship is available for up to five years if the recipient maintains a Calvin grade point average of 3.50. More than 330 students admitted in the fall of 2007 were offered Presidential Scholarships. The typical profile of students considered for this scholarship included a grade point average of 3.85 and either an ACT composite score of 29 or combined critical reading/math SAT score of 1300. Top level Presidential Scholarships were awarded to students with exceptional, high quality involvements, leadership and honors in school, church, and community.

Calvin Dean's Scholarships Scholarships of up to $4,500 are awarded to first-year scholars who are not selected to receive a Calvin National Merit, Trustee, or Presidential scholarship. This scholarship is available for up to five years if the recipient maintains a Calvin grade point average of 3.40. More than 250 students admitted in the fall of 2007 were offered a Dean's Scholarship. The typical profile of students considered for this scholarship included a grade point average of 3.80 and either an ACT composite score of 28 or combined critical reading/math SAT score of 1260. Top level Dean's Scholarships were awarded to students with exceptional, high quality involvements, leadership and honors in school, church, and community.

Calvin Faculty Honors Scholarships Scholarships of up to $3,500 are awarded to first-year students who are not selected to receive a Calvin National Merit, Trustee, Presidential, or Dean's Scholarship. This scholarship is available for up to five years if the recipient maintains a Calvin grade point average of 3.30. More than 250 students admitted in the fall of 2007 were offered a Calvin Faculty Honors Scholarship. The typical profile of students considered for this scholarship included a grade point average of 3.65 and either an ACT composite score of 26 or combined critical reading/math SAT score of 1180. Top level Faculty Honors Scholarships were awarded to students with exceptional, high quality involvements, leadership and honors in school, church, and community.

Calvin Honors Scholarships Scholarships of up to $2,500 are awarded to first-year students who are not selected to receive a Calvin National Merit, Trustee, Presidential, Dean's, or Faculty Honors Scholarship. The Honors Scholarship is available for up to five years if the recipient maintains a Calvin grade point average of 3.20. More than 350 students admitted in the fall of 2007 were offered a Honors Scholarship. The typical profile for students considered for this scholarship included a grade point average of 3.50 and either an ACT composite score of 25 or a combined critical reading/math SAT score of 1140. Top level Honors Scholarships were awarded to students with exceptional, high quality involvements, leadership and honors in school, church, and community.

Calvin Knollcrest Scholarships Scholarships of $1,000 are awarded to first-year students who are not selected to receive a Calvin National Merit, Trustee, Presidential, Dean's, Faculty Honors, or Honors Scholarship. The Knollcrest Scholarship is available for up to five years if the recipient maintains a Calvin grade point average of 3.00. More than 370 students admitted in the fall of 2007 were offered a Knollcrest Scholarship. The typical profile of students considered for this scholarship included a grade point average of 3.00 and either an ACT composite score of 22 or a combined critical reading/math SAT score of 1030.

Academic Achievement Awards Academic Achievement Awards are awarded in multiples of $500 to returning students who do not presently have one of the above scholarships and earn a cumulative

grade point average of 3.40 or higher. They are also awarded to students who have a Knollcrest, Honors, Faculty Honors, or Dean's Scholarship and earn a cumulative grade point average that is significantly higher than required for renewal of their scholarship. Eligibility is determined for first-year students based on the cumulative Calvin grade point average at the end of the spring semester; eligibility is determined at the end of interimfor all other students.

Awards of $500 are granted to those who 1) do not have one of the above scholarships but have a cumulative grade point average between 3.40 and 3.54, 2) have a Knollcrest or Honors Scholarship and a cumulative grade point average between 3.50 and 3.64, 3) have a Faculty Honors Scholarship and a cumulative grade point average between 3.65 and 3.79, or 4) have a Dean's Scholarship and a cumulative grade point average of 3.80 or higher.

Awards of $1,000 are granted to those who 1) do not have one of the above scholarships but have a cumulative grade point average between 3.55 and 3.69, 2) have a Knollcrest or Honors Scholarship and a cumulative grade point average between 3.65 and 3.79, or 3) have a Faculty Honors Scholarship and a cumulative grade point average of 3.80 or higher.

Awards of $1,500 are granted to those who 1) do not have one of the above scholarships but have a cumulative grade point average between 3.70 and 3.79 or 2) have a Knollcrest or Honors Scholarship and a cumulative grade point average of 3.80 or higher.

Awards of $2,000 are granted to those who do not have one of the above scholarships but have a cumulative grade point average of 3.80 or higher.

Calvin Mosaic Awards and Multicultural Awards In an effort to develop a community that celebrates cultural diversity and a student body that is more culturally diverse, Calvin has developed these two awards. Many recipients are ethnic minority students, but some are majority students from ethnically diverse backgrounds. Recipients must be U.S. citizens, eligible noncitizens, or Canadian citizens.

Awards of $6,000 are awarded each year to first-year or transfer students with excellent academic records and potential for college, whose ethnic, cultural, and/or socio-economic backgrounds will contribute to a more culturally diverse student body at Calvin. More than 130 students admitted in the fall of 2007 were offered a Mosaic Award. These awards are offered in addition to the Knollcrest, Honors, Faculty Honors, Dean's, Presidential, Trustee, and Calvin National Merit Scholarships for those who qualify, and are renewed for up to four additional years for those who maintain a cumulative grade point average at Calvin of 2.50 or higher.

Multicultural Awards of $3,000 per year are awarded to all prospective, North American, ethnic minority first-year and transfer students who have a high school grade point average of 3.00 or higher, are granted regular admission to the college, and are not selected to receive a Mosaic Award. Those who have the grade point average required but are not granted regular admission are reviewed for the award individually. For transfer students who are ethnic minorities, a grade point average of 2.50 or higher is required in their previous college work. More than 90 students admitted in the fall of 2007 were offered a Multicultural Award. Awards are renewed for up to four additional years for those who maintain a cumulative grade point average at Calvin of 2.00 or higher.

Calvin Entrada Scholarships The Entrada Scholarship is awarded to North American ethnic minority students who have successfully completed the Entrada Scholars Program (a B- or higher in the academic course). Through the Entrada Scholars Program, students completing their junior or senior year of high school come to Calvin for four weeks during the summer to experience college learning and living. A $4,000 scholarship is awarded to successful Entrada Scholars who enroll at Calvin following high school. The scholarship is renewed for up to four additional years for those who maintain a cumulative grade point average at Calvin of 2.00 or higher.

Scholarships for Transfer Students Admitted transfer students are considered for merit-based scholarships based on the same criteria used for first-year scholarships, along with the applicant's college grade point average. Typically, a previous college grade point average of 3.20 or higher is required for consideration of any Calvin merit-based scholarships. Transfer Scholarships are renewable if the student maintains the Calvin grade point average required for the level of scholarship they receive.

Named Scholarships Funded by Donors

A number of scholarships and grants have been established by donors to support the college's scholarship program and to provide recognition and financial support to students who meet the eligibility criteria described. Application procedures vary and are included in the description of each scholarship. For those scholarships that require a letter or separate application, the deadline for prospective first-year students is February 1 and for others is March 1. For all scholarships where financial need is considered, an application for financial aid is required as well. A searchable database of these scholarships is also available in the Office of Admissions and Financial Aid section of the Calvin website which is accessible at www.calvin.edu/admin/finaid/.

Dr. Melissa Meyer Adams Memorial Scholarship The family of Dr. Melissa Meyer Adams established this scholarship as a way to remember and honor her life. Melissa graduated from Calvin in 1998 with a degree in English. In 2001, she married Rick Adams. She then went on to the University of Colorado where she earned her MD degree in 2004. Melissa practiced medicine in Denver, Colorado, until October 23, 2005, when the Lord called her home. This scholarship is available to first year students as well as transfer students, with first preference given to students from Colorado. They must have a high school or college grade point average of 3.00 or higher. In some cases both high school and college grade point averages may be used. There should be some evidence of financial need. No separate application is required. This scholarship is not renewable. One scholarship of $2,500 was awarded for 2007-2008.

Roger L. and Sandra L. Alderink Family Scholarship Mr. Roger and Mrs. Sandra Alderink of Caledonia, Michigan, established this scholarship for graduates of Hudsonville Unity Christian High School or Grand Rapids South Christian High School. The Alderinks are grateful for the support, encouragement, and direction provided by the staff at Unity Christian, where Mr. Alderink and the Alderink children attended, as well as at South Christian and also at Calvin College. They have chosen this scholarship as a way of supporting those who have the desire and vision to excel in a Christ-centered education. Candidates are students entering their first year at Calvin who demonstrate a reformed faith commitment as evidenced by involvement in volunteer organizations and activities, other than athletics, in church or school. Recipients are selected by each high school. Thescholarship is automatically renewable for the sophomore year if a 2.50 grade point average is maintained. Three scholarships of $3,200 were awarded for 2007-2008.

Ruth Rosendall Alward Honors Scholarship Ruth Rosendall Alward wishes to facilitate the education of Calvin nursing students out of gratitude to God for many blessings and to Calvin for providing a sound foundation for a career in nursing service and education. Candidates are students entering their junior or senior year who are in Calvin's nursing program. No application is required. This scholarship is automatically renewable if a grade point average of 3.20 or higher is maintained. Each year two students receiving the Honors Scholarship will be designated as a Ruth Rosendall Alward Honors Scholar.

Auxilium Scholarship This scholarship was established by a group of loyal supporters who wish to enhance the diversity of the college by encouraging graduates of Auxilium High School in Secunderabad, India, to seek a Christ-centered education at Calvin. Candidates are students entering their first year at Calvin who are graduates of Auxilium High School. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. No

separate application is required. This scholarship is automatically renewable for up to three additional years if the student maintains good academic standing.

Bakker Family Missions Scholarship This scholarship was established in honor of foreign missionaries for students whose parents are serving in foreign missions and who have had some of their secondary education in the third world. Candidates are students entering their first year at Calvin who have parents who are U.S. citizens living abroad and serving as full-time missionaries. They must have a grade point average of 3.00 or higher and have had some (or all) of their secondary education in the third world. There should be some evidence of financial need. First year students must send a brief letter of application to the Office of Admissions and Financial Aid by February 1. To re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Preference will be given to incoming first-year students. One scholarship of $3,400 was awarded in 2007-2008.

Richard Ballast Scholarship This scholarship was established by Mrs. Betty Ballast in honor of her late husband, Richard. Mr. and Mrs. Ballast both graduated from Calvin and appreciated the education they received. Mrs. Ballast wishes to help deserving students who require financial assistance. Candidates are Calvin students entering any academic year. They must have a grade point average of 2.50 or higher and demonstrate some evidence of financial need. No separate application is required. Current recipients will be given equal consideration with other candidates. One scholarship of $2,400 was awarded for 2007-2008.

Stephen P. Beals Family Scholarship Dr. Stephen and Mrs. Martha Beals established this scholarship in appreciation to those who helped Dr. Beals succeed at Calvin. While at Calvin, the groundwork was laid for Dr. Beals to succeed spiritually, academically, and financially. It is their desire to provide assistance to a promising young pre-med student so that the recipient may benefit in a manner similar to Dr. Beals. Candidates are Calvin students entering their junior or senior year who are pursuing a degree in medicine. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $3,000 was awarded for 2007-2008.

Julius and Sylvia Becksvoort Scholarship Mrs. Sylvia Becksvoort established this scholarship in appreciation of the deep history and rich heritage of Calvin. It is her desire, and that of her late husband, Julius, to support students at Calvin who are interested in a career in ministry. Because of their love of the Christian Reformed Church and the role it has played in their lives, they would like to provide scholarship assistance to a pre-seminary student pursuing additional studies at Calvin Theological Seminary with a goal of service in Christian ministry, preferably within the Christian Reformed Church. Candidates are Calvin students entering their junior or senior year who are pursuing a pre-seminary course of study and who are planning to attend Calvin Theological Seminary. They must be able to demonstrate excellent Christian character and a willingness to follow a life of service to God. They must also have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply, use the Upper-class Named Scholarship Application available through KnightVision in January. This scholarship is automatically renewable if the student continues in a pre-seminary program and maintains a cumulative grade point average of 3.00 or higher. One scholarship of $1,000 was awarded for 2007-2008.

Clarence and Anne Beets Scholarship This scholarship was established by Dr. William C. (Clarence) and Mrs. Anne Beets to help students who have been successful at Calvin and have the potential and motivation to continue to be successful but lack the financial resources to meet all of their expenses. Candidates are Calvin students entering their junior or senior year who are making normal progress toward a degree. They must have a cumulative grade point

average of 2.50 or higher and demonstrate some evidence of financial need. No separate application is required. Current recipients will be given equal consideration with other candidates. Two scholarship of $2,100 were awarded for 2007-2008.

Belden Brick & Supply Architectural and Masonry Scholarship Belden Brick & Supply of Grand Rapids, Michigan, established this scholarship as a way of demonstrating their support for the mission of Calvin. Candidates are students who are children or grandchildren of a mason, architect, landscape professional, or homebuilder, with preference given to those entering their first year at Calvin. They must be able to indicate that a parent or grandparent has or had a working relationship with Belden Brick & Supply Company. Preference will be given to residents from the West Michigan area. Prospective first-year students must have a grade point average of 3.00 or higher. Financial need is not required but may be considered. Letters of application detailing an established relationship with Belden Brick & Supply should be sent to the Office of Admissions and Financial Aid by February 1. Two scholarships of $1,000 were awarded for 2007-2008.

Beré Memorial Scholarship Mrs. Jeanne L. Beré-Newgar of Palos Park, Illinois, established this scholarship in memory of her late husband, Paul Beré, who was a lawyer. Candidates are Calvin students entering their junior or senior year who are among the top students in the pre-law program. Selection is based on academic record, Christian character, motivation, and potential for service as a lawyer. Need is also considered. To apply, transfer students should write a letter of application giving information about their qualifications for the scholarship to the Office of Admissions and Financial Aid by February 1. Returning students must use the Upper-class Named Scholarship Application available through KnightVision in January. They will be given equal consideration with other candidates. One scholarship of $800 was awarded for 2007-2008.

James F. Beré Memorial Scholarship This scholarship was established in memory of Mr. James F. Beré, an alumnus and longtime supporter of Calvin. At the time of his death in 1992, he was Chairman and CEO of Borg-Warner Corporation in Chicago, Illinois. Mr. Beré was actively involved in the business community in Chicago and had a special concern for assisting racial and ethnic minorities toward success in their education. He believed each individual has an obligation to reach beyond the minimal, to engage in an endless quest for excellence, and to make a commitment to continuous renewal. This scholarship was established to carry out his deeply held belief that racial and ethnic minorities should have increased opportunities to pursue a Christian higher education. Candidates are seniors in high school who have a high school grade point average of 3.00 or higher. Selection is based on academic record, potential for college, cultural background, potential to contribute to the cultural diversity at Calvin, and financial need. No separate application required. This scholarship is automatically renewable for up to three years if a Calvin grade point average of 2.50 or higher is maintained. Ten scholarships of $2,300 were awarded for 2007-2008.

Berkowitz Scholarship The late Mr. and Mrs. Hyman Berkowitz of Wyoming, Michigan, established this scholarship in gratitude for all that God had given them. It was their philosophy that helping others is not only a duty, but also a privilege. Candidates are students with a physical handicap or learning disability. A grade point average of 2.50 or higher is required for incoming first-year students and a grade point average of 2.00 or higher is required for transfer and returning students. There should be some evidence of financial need. To apply, prospective and transfer students should write a letter of application giving information about their qualifications for the scholarship to the Office of Admissions and Financial Aid by February 1. Returning students must use the Upper-class Named Scholarship Application available through KnightVision in January. They will be given equal consideration with other candidates. Four scholarships of $1,350 were awarded for 2007-2008.

Bode/Stouwie Family Scholarship This scholarship was established by Randy and

Jan Bode in honor of their parents, Rube and Gina Bode and Ed and Jennie Stouwie. Candidates are students entering their first year at Calvin who demonstrate strong Christian character and who are active in a church, community and extracurricular activities. Preference is given to students from the Pacific Northwest. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. No separate application required. This scholarship is not renewable. One scholarship of $1,500 was awarded for 2007-2008.

Nicholas and Pauline (Manni) Boeskool Scholarship Ms. Edna Powell established this scholarship in appreciation of the hard work of her parents, especially during the Depression years, and of their willingness to let their children pursue more education. She would like to carry on the tradition of encouraging young people to get an education. Candidates are students entering any class level at Calvin. Prospective students must have a grade point average of 2.50 or higher and Calvin students must have a grade point average of 3.00 or higher. There should be some evidence of financial need. No separate application is required. Current recipients will be given equal consideration with other candidates. Two scholarships of $1,250 were awarded for 2007-2008.

Bolt Family Scholarship This scholarship was established in memory of father and son pastors, Reverend Martin Bolt and Reverend Calvin Bolt. Together they provided 75 years of service to the Christian Reformed Church through their ministry to congregations, leadership boards, and denomination government. They also displayed great love and support for world missions. Candidates are pre-seminary Calvin students entering their junior or senior year, with preference given to students interested in world missions and to those planning to attend Calvin Seminary and enter parish ministry. Selection is based primarily on academic record and potential, although financial need is also taken into consideration. They must have a cumulative grade point average of 3.30 or higher. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Two scholarships of $2,100 were awarded for 2007-2008.

Henrietta Bontekoe Nursing Scholarships Mrs. Henrietta Bontekoe established these scholarships because of her commitment to those in the nursing profession. Throughout her later life Mrs. Bontekoe truly appreciated the nursing care she received and longed to see others receive similar care. It was her desire that these funds be used to assist deserving students in the nursing program. No separate application is required. Each year certain students receiving general merit based scholarships are designated as Bontekoe Nursing Scholars. Additionally, six nursing students were awarded Bontekoe nursing scholarships for $2,000 in 2007-2008.

Robert and Marjorie Boot Scholarship Mr. Robert and Mrs. Marjorie Boot from South Haven, Michigan, are the middle generation of a "Three Generation" Calvin family. Marjorie's father, Dr. Harry Kok (class of 1922); Robert and Marjorie (classes of 1950 and 1952 respectively); and Robert and Marjorie's children, Sheri (class of 1972), Susan (class of 1973) and Scott (class of 1976), are all graduates of Calvin. Calvin has become an integral part of the Boot family and Robert and Marjorie wish to return part of their blessings for use by future generations. Candidates are Calvin students who demonstrate a love of (1) God, our only hope in life and in death, (2) Family, with whom we learn to share this love, and (3) America, where we can worship Him and pursue our goals according to our ability and ambition. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Two scholarships of $2,250 were awarded for 2007-2008.

John D. and Beth E. Bouws Family Scholarship Dr. John and Mrs. Beth Bouws wish to honor their children who, like their father, attended Calvin. This scholarship

was established in gratitude for the outstanding Christian education that the family received at Calvin College and Calvin Seminary. Candidates are Calvin students entering their junior or senior year who are pursuing a degree in either engineering or business. They must have a grade point average of 3.00 or higher, be involved with on-campus activities and demonstrate a strong Christian character. Financial need is not required. No separate application is required. Current recipients will be given equal consideration with other candidates. Two scholarships of $1,950 were awarded for 2007-2008.

J. Russel Bouws/Russ' Restaurant Scholarship Mr. Howard De Haan, owner of the Russ' Restaurants in Kent County, established this scholarship to honor Mr. J. Russel Bouws, founder of Russ' Restaurants in Holland, Michigan. Candidates are students entering any class level at Calvin who are employed by one of the Russ' Restaurants in Kent County. Selection is based on academic record, character, motivation, financial need, and length of service with Russ'. Application available in January at participating Russ' restaurants in Kent County. Current recipients who wish to be considered for renewal must file a new application each year and are given equal consideration with other candidates. Seven scholarships of $1,200 were awarded for 2007-2008.

Dr. and Mrs. Harvey J. Bratt Medical and Missions Scholarship Harvey and Fran Bratt, medical doctor and registered nurse, respectively, established this scholarship for worthy young people who plan to pursue a medical career and who are in need of financial help. Dr. and Mrs. Bratt are both alumni of Calvin and they established this scholarship out of gratitude to the college for what it has meant to them and to God for what He has done for them. Candidates are Calvin students entering their junior or senior year. Factors that may be taken into consideration are: unquestioned Christian commitment, intention to enter a medical career, interest in medical missions, interest in service to the poor and needy, and ethnic minority status. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Three scholarships of $2,500 were awarded for 2007-2008.

Ronald Buikema Memorial Scholarship This scholarship was established in memory of the late Ronald Buikema of South Holland, Illinois. Mr. Buikema was a lawyer, an alumnus of Calvin, an active supporter of the college, and a member of the college's Board of Trustees at the time of his death in 1997. Candidates are Calvin students entering their senior year who are planning to attend law school or a graduate program in politics or government. They must demonstrate leadership skills and involvement in community or extracurricular college activities. A grade point average of 3.00 or higher is required. First preference is given to graduates of Illiana Christian High School in Lansing, Illinois, and second preference is given to graduates of other Chicago area high schools who meet the above criteria. If there are no qualified candidates from these high schools, others will be considered. To apply, use the Upper-class Named Scholarship Application available through KnightVision in January. This scholarship is not renewable. Two scholarships of $2,200 were awarded for 2007-2008.

A. Dale and Mary Buist Family Honors Scholarship This scholarship was established by Mary Buist because of her deep interest in and commitment to Christian education. She and her husband, Dale, have always been supportive of Christian education, and they are giving this scholarship to further support and enhance the Christian education of young people. Candidates are students entering their first year at Calvin who are pursuing an Education major. Financial need is not required. No application required. This scholarship is automatically renewable if a cumulative grade point average of 3.20 or higher is maintained. Each year one student receiving the Honors Scholarship will be designated as an A. Dale and Mary Buist Family Honors Scholar.

Bultema Family Nursing Scholarship The Bultemas are a diverse family with six chil-

dren, the oldest son working in China, a son and a daughter currently attending Calvin, and two daughters who were born in China. The family loves to travel and learn about different cultures and they have a heart for international students. The family has hosted numerous exchange students and some of their own children have lived and studied in far away lands. They understand how difficult it can be to learn a new language and culture while trying to be successful in the academic setting. Because of their interest in diversity and cultural exchange, the Bultema family established this scholarship for international students who are studying in the U.S. to pursue a career in the nursing field with the hope of returning to their home country to make a difference in the lives of their own native people. Candidates are Calvin students entering their sophomore, junior, or senior year who are majoring in nursing. Preference will be given, in this order, to international students from Kenya, Africa, or Asia. They must have a grade point average of 2.00 or higher and demonstrate some evidence of financial need. No separate application is required. This scholarship is automatically renewable if the student continues to pursue a degree in nursing. One scholarship of $2,500 was awarded for 2007-2008.

Susan Lemmen Byker Honors Scholarship This scholarship was established by Mr. Gary and Mrs. Henrietta (Blankespoor) Byker to honor their daughter-in-law, Susan (Lemmen) Byker, for her many years of service as a teacher in Christian, public, and international schools, and for her support of their son, Gaylen Byker, current president of Calvin. Candidates are students from Hudsonville Unity Christian High School who are entering their first year at Calvin and who are planning to pursue a program in Education. If there are no students from Unity who plan to study education, then a student from Unity who is pursuing other areas of interest will be considered. If there is no qualified candidate from Unity, a student from another Christian high school planning to study Education will be considered. No separate application is required. This scholarship is not renewable. Each year two Honors Scholarship recipients are designated as Susan Lemmen Byker Honors Scholars.

Thomas F. Caldon, Jr. Memorial Scholarship Candidates are students entering their first year at Calvin who express a strong desire for coursework in a pre-medical, pre-law, engineering, or accounting program. Preference is given to first generation college students. They must have a grade point average of 3.30 or higher and demonstrate some evidence of financial need. No separate application is required. This scholarship is automatically renewable if a grade point average of 3.00 is maintained. Two scholarships of $2,450 were awarded in 2007-2008.

Calvin Academy for Lifelong Learning Scholarship The Calvin Academy for Lifelong Learning (CALL) is an organization affiliated with Calvin. An important purpose of CALL is "to create an abiding partnership between Calvin and senior citizens who wish to share knowledge, talents, and experience." With the establishment of this scholarship, CALL also wishes to promote educational opportunities for students beyond the conventional college age by offering financial assistance to those who wish to study at Calvin at the undergraduate level and are in need of financial assistance. Candidates must be at least twenty-five years of age and may be pursuing any undergraduate degree, teaching certification, or graduate school requirements. There should be some evidence of financial need. No separate application is required for prospective first-year students. Returning students must use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Two scholarships of $1,500 were awarded in 2007-2008.

Calvin Minority Scholarship Gifts have been received from constituents and friends of Calvin to fund this scholarship for North American ethnic minority students. Candidates must have a grade point average of 2.50 or higher and demonstrate some evidence of financial need. No separate application is required. Current recipients are given first consideration for renewal. Eight scholarships of $2,500 were awarded in 2007-2008.

Capital Region Community Foundation Scholarship This scholarship was established by the Capital Region Community Foundation of Lansing, Michigan. Candidates are residents of Ingham, Eaton, or Clinton counties in Michigan. Selection may include, but is not limited to, academic performance, achievement or aptitude test performance, recommendations from instructors, financial need, and conclusions based on personal interviews. Candidates must have a grade point average of 2.50 or higher, be in good standing, and be "of proven superior ability, scholarship, and character." No separate application is required. Current recipients will be given equal consideration with other candidates.

Castle, DeWit, and Timmer Scholarship This scholarship was established to honor the careers of three dedicated, long-time Calvin employees. Ada Castle began at Calvin in 1985 and still serves Calvin today as the assistant director of the physical plant. Henry De Wit was Calvin's vice president of administration and finance for 34 years. Jay Timmer was Calvin's first director of the physical plant and was employed at Calvin for 28 years. Candidates are students entering their first year at Calvin who plan to pursue a career in either business or marketing. They must have a high school grade point average of 2.50 or higher and demonstrate some evidence of financial need. No separate application is required. This scholarship is automatically renewable if the student maintains a cumulative grade point average of 2.75 or higher and continues to pursue a career in business or marketing. One scholarship of $1,400 was renewed in 2007-2008.

Celeryville Area Scholarship Supporters of Calvin from the Celeryville, Ohio, area established this scholarship to encourage students from their area to attend Calvin. Candidates are students entering their first year at Calvin who exhibit motivation, Christian character, promise of growth and who show some evidence that they have given of themselves to activities in their church and/or community. They must be a child or grandchild of a family living in the Celeryville, Ohio, area. A high school grade point average of 2.50 or higher is required. Preference is given to students with the greatest need. Apply through the Celeryville Area Scholarship Committee. This scholarship is not renewable. Four scholarships of $750 were awarded for 2007-2008.

Judith DeJong Clousing Scholarship This scholarship was established by the family of Ms. Judith Rae DeJong Clousing who developed blindness and epileptic-type seizures at the early age of seven. This scholarship is a memorial to her life testimony of the power and sufficiency of God's grace in her life. Candidates are permanently physically disabled students, with preference given to students who are visually impaired. Students entering their first year at Calvin must have a high school grade point average of 2.50 or higher and transfer and returning students must have a college grade point average of 2.00 or higher. There should be some evidence of financial need. To apply, prospective students should send a letter to the Office of Admissions and Financial Aid describing their qualifications for the scholarship by February 1. No separate application is required for returning students. Current recipients will be given equal consideration with other candidates. Three scholarships of $1,800 were awarded for 2007-2008.

Coca-Cola Company Calvin Scholarship This scholarship was established in recognition of the Coca-Cola Company, which exists to benefit and refresh everyone it touches. A very important part of that benefit and refreshment is giving back to local communities, including education. The Coca-Cola Company has a tradition of providing financial support for education throughout the world. Candidates are students entering any class level at Calvin. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. No separate application is required. This scholarship is automatically renewable if a cumulative grade point average of 3.00 or higher is maintained. Two scholarships of $2,000 were awarded for 2007-2008.

Dale and Marcia Cooper Family Scholarship The Cooper family knows how richly the Lord has blessed them, in part through

His gift of Calvin to them. Calvin has shaped them and given them so much joy. With thanks to their Lord, they are glad to do their part in helping Calvin to transmit the promises and commands of their Savior and Lord to the next generation. Candidates are international students (not from North America) entering their first year at Calvin who display promise of a life devoted to witness and service in honor to Jesus Christ. There should be some evidence of financial need. No separate application is required. This scholarship is automatically renewable if a cumulative grade point average of 3.00 or higher is maintained. One scholarship of $2,000 was awarded for 2007-2008.

Covenant Scholarship of Goshen, Indiana The Hoogenboom Family of Goshen, Indiana, established this scholarship as an expression of their gratitude to God for the blessings he has given their family. It is their desire to fulfill the promises made at baptism to members of the Goshen Christian Reformed Church to help them grow in knowledge and in faith. They believe that the distinctly Christian world and life view taught and nurtured at Calvin aids in this growth process. Candidates are students entering their first year at Calvin who demonstrate strong Christian character, strong work ethic, potential for leadership, quality academic performance and a servant's heart as indicated by acts of service to church or community. First preference is given to a member of Greene Road CRC in Goshen, Indiana. Second preference is given to a member of South Bend CRC or Fort Wayne CRC, with no preference given to one church or the other. Third preference is given to a student with a permanent residence within Elkhart County, Indiana. They must have a high school grade point average of 2.00 or higher. No separate application is required. This scholarship is automatically renewable if the student maintains satisfactory academic progress and continues to display exemplary Christian character. Four scholarships of $2,000 were awarded for 2007-2008.

D & D Building Scholarship D & D Building, Inc. of Grand Rapids, Michigan, established this scholarship in grateful acknowledgement of its employees. First consideration is given to children of employees. If there are no children of employees who qualify, second consideration is given to students entering their first year at Calvin. Other factors considered include the student's academic record (a cumulative grade point average of 2.00 or higher is required), participation in church, community, and extracurricular school activities, and financial need. To apply or re-apply, students with a parent employed by D & D Building, Inc. should send a letter of application to the Office of Admissions and Financial Aid by February 1. Current recipients will be given equal consideration with other candidates. One scholarship of $2,000 was awarded for 2007-2008.

D.P.H.O.J.L. Scholarship This scholarship was established by several Calvin alumni (Degree, Powell, Hazely, Omnes, Jones and Lee) from graduating years 2003-2005. All are female and either African American or Asian American. The group became great friends during their time at Calvin and is thankful for the blessings and opportunities that have followed. The D.P.H.O.J.L. Scholarship is a way for the group to give back to Calvin while also assisting others in having a similarly successful experience. Discovering Purpose, Helping Others, and sharing the Joy of the Lord is what this group did at Calvin and they would like for the recipients of this scholarship to do as well. Candidates are Calvin students entering their sophomore, junior, or senior year who are pursuing a major in Education, Communications, Nursing, English or Religion. They must be African American or Asian American female students who demonstrate involvement in student groups and organizations. They must have a grade point average of 2.50 or higher and demonstrate some evidence of financial need. To apply, use the Upper-class Named Scholarship Application available through KnightVision in January. This scholarship is not renewable. One scholarship at $1,200 was awarded for 2007-2008.

Otto J. DeBruyn Family Scholarship This scholarship was established by Mr. Otto DeBruyn in recognition of his family's long affiliation with Calvin. Mr. DeBruyn's father attended Calvin Seminary from 1907

to 1911. Since that time many members of the family have attended Calvin. Mr. DeBruyn's desire is to assist students concerned with health and fitness issues. As life expectancy increases, quality of life issues become more important. Toward this end recipients of this scholarship will be encouraged to promote physical fitness and health education at all levels of education. Candidates are Calvin students entering their junior or senior year. First preference is given to students pursuing a degree in Physical Education. Second preference is given to students pursuing a degree in Education with a Physical Education minor. They must have a grade point average of 3.30 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Three scholarships of 2,800 were awarded for 2007-2008.

De Groot Family Scholarship Mr. Amos J. De Groot of Downey, California, established this scholarship to assist Calvin in its responsibility to provide educational opportunities to minority persons and in its efforts to become a Christian community that reflects and values cultural and racial diversity. Candidates are North American ethnic minority students entering their junior or senior year at Calvin. They must be pursuing or planning to pursue a program that will lead to a career of service to disadvantaged ethnic minority families or individuals. A cumulative grade point average of 2.50 or higher is required. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Three scholarships of $1,700 were awarded for 2007-2008.

Jennie and Gerrit De Haan Memorial Scholarship Dr. Gerben and Mrs. Janice De Jong established this scholarship in memory of Mrs. De Jong's parents, Jennie and Gerrit De Haan. Dr. and Mrs. De Jong love to travel and have found traveling to be an enriching and mind-expanding experience. In the course of their travels they have met many wonderful people and have made some wonderful friendships. Mrs. De Jong experienced the sudden losses of her parents in December of 1994 and 1995—her father in an automobile accident and her mother at her home while visiting as part of an extended Thanksgiving holiday. This scholarship provides a way of combining these two very significant experiences with a desire to provide an opportunity for students to participate in Calvin's international travel interim program who might not otherwise have that opportunity. The De Jongs hope that this will prove to be a very intellectually enriching and life-enhancing experience for the scholarship recipients. Candidates are Calvin students entering any class level who are planning on going off campus for Interim, with preference given to ethnic minority students. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. Applications available from the Office of Admissions and Financial Aid in September. Students who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Three scholarships of $500 were awarded for 2007-2008.

Daniel De Lange Family Honors Scholarship Mr. Daniel De Lange is a product of Christian schools having gone to Christian schools as a child. He chose to attend Calvin and developed a love for Christian education from his experience there and from the Christian education he received as a child. After graduating from Calvin, he taught in Christian schools before going into business. He has stayed in touch with Christian education through the years and wishes to give back to Calvin for the outstanding education he received. Candidates are students entering their first year at Calvin who are pursuing any major or program, with first preference given to students from Miami Dade County in Florida. If there are no candidates from that area, then students from South Florida will be considered. Financial need is not required. This scholarship is automatically renewable if a cumulative grade point average of 3.20 or higher is maintained. Each year one Calvin Honors Scholarship recipient will be designated as a Daniel De Lange Family Honors Scholar.

Gerald and Joyce De Nooyer Family Scholarship This scholarship was established by Mr. Gerald and Mrs. Joyce De Nooyer of Kalamazoo, Michigan, out of thankfulness for all the blessings God has given them. Mr. and Mrs. De Nooyer are both alumni of Calvin and are especially grateful for the Christ-centered education that they and their children received at Calvin. This scholarship is given with the hope that it will help equip and strengthen young people for a purposeful Christian commitment to their generation. Candidates are students entering their first year at Calvin. Selection is based on evidence of Christian commitment and demonstrated leadership ability in high school, church, or community activities, other than athletics. They must have a high school grade point average of 3.30 or higher and demonstrate some evidence of financial need. No separate application is required. This scholarship is not renewable. Two scholarships of $2,650 were awarded for 2007-2008.

De Rose Family Scholarship for Women in Ministry Dr. William and Mrs. Henrietta De Rose of Palos Heights, Illinois, established this scholarship to offer support and encouragement to female students planning to pursue a career in Christian ministry. Candidates are Calvin female students entering their junior or senior year who plan to pursue a pre-seminary program. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be considered on an equal basis with other candidates. One scholarship of $1,500 was awarded for 2007-2008.

Deb Deters Business Scholarship Deb Deters established this scholarship to support female graduates of Hudsonville Unity Christian High School who desire to enter the business world after attending Calvin. Deb has been blessed in her business career and is interested in sharing her blessings with female students planning to pursue a career in business. Deb was positively influenced by her mother who took over the family business after her husband died. The core values that Deb learned from her mom, the church, the Christian school, and her professors at Calvin have enabled her to put her faith into action in the business world. Candidates are female students at Calvin with strong business skills and an entrepreneurial interest. They must be a graduate of Unity Christian High School. They must have a grade point average of 2.80 or higher and demonstrate some evidence of financial need. Recipients are selected by Unity Christian High School. This scholarship is automatically renewable if satisfactory academic progress is maintained. One scholarship of $2,400 was awarded for 2007-2008.

Debra Deur Scholarship This scholarship was established by Dr. Charles Deur in memory and honor of his wife, Debra, who put her Christian faith into practice in many roles. Though Debra did not attend Calvin, she always enjoyed her visits to the college and enthusiastically supported Calvin to help give students the Christian education she never had. Candidates are Calvin students entering their sophomore, junior, or senior year who are majoring in the sciences. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. No separate application is required. This scholarship is automatically renewable if a grade point average of 3.00 or higher is maintained. Two scholarships of $3,000 were awarded in 2007-2008.

Eugene and Joan Deur Scholarship This Scholarship was established in memory of Eugene and Joan Deur. Mr. and Mrs. Deur truly appreciated the excellent education Calvin provided their children and grandchildren. Candidates are Calvin students entering their sophomore or junior year who are pursuing a career in teaching, ministry, or mission work. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $2,600 was awarded in 2007-2008.

DeVos Business Scholarship Dick and Betsy DeVos established this scholarship for students committed to Christian leadership and concerned about the changing needs of the international and global business community. Students majoring in Business or Economics should support Biblical moral and ethical standards and be committed to a system that promotes or encourages free enterprise. Candidates are students entering their first year at Calvin who are pursuing a program of study in a Business or Economics field, with preference given to first generation college students. They must have a high school grade point average of 3.30 or higher and demonstrate some evidence of financial need. No separate application required. This scholarship is automatically renewable for up to three years if the student maintains a 2.50 grade point average and continues to pursue a degree in Economics or Business. Three scholarships of $1,400 were awarded for 2007-2008.

Frank and Esther DeVos Family Scholarship Mr. Frank and Mrs. Esther DeVos established this scholarship as an expression of their support for Calvin. It is their desire to see Calvin uphold its commitment to Christian education from a Reformed perspective while at the same time continuing to maintain the highest academic standards. Candidates are Calvin students entering their junior or senior year who are pursuing a degree in biology. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. No separate application is required. This scholarship is not renewable. One scholarship of $2,000 was awarded for 2007-2008.

Edward and Marvin DeVries Scholarship for Twins Edward and Marvin DeVries are twin brothers who, together with their spouses, sent five children to Calvin. As the cost of private education continues to increase, Edward and Marvin understand the financial strain for families to send twin children to Calvin and have established this scholarship to meet this need. Candidates are twins entering their first year or sophomore year at Calvin. Financial need is required. To apply, prospective students must send a letter to the Office of Admissions and Financial Aid describing their qualifications for the scholarship by February 1. To re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Two scholarships of $2,900 were awarded for 2007-2008.

De Vries Family Scholarship This scholarship was established by the children of Andy (Jeane) De Vries and Bud (Doris) De Vries to provide financial assistance to students whose parents did not go to college. The De Vries grandparents immigrated from the Netherlands and struggled to make ends meet as well as to send their two sons to Christian elementary and secondary schools. The De Vries brothers and their wives made many sacrifices so that a Christian education would be available to their children as well as it had been made for them. This scholarship was established to honor these sacrifices. Candidates are students entering their first year at Calvin whose parents did not attend college. They must have a grade point average of 2.50 or higher. Financial need is required. No separate application is required. This scholarship is not renewable. One scholarship of $2,500 was awarded for 2007-2008.

Gerald DeVries, Eastside Christian School Scholarship This scholarship was established to improve the opportunity for Eastside Christian School graduates to receive an education at Calvin. Candidates are students entering any class level at Calvin, with preference given to first year students. They must be graduates of Eastside Christian School. To apply, contact the Eastside Christian School Board. Current recipients will be given equal consideration with other candidates. Two scholarships of $1,500 were awarded for 2007-2008.

Lloyd H. De Vries Scholarship Lloyd De Vries was a Calvin student in the mid 1960's. To be able to attend Calvin, he saved money while in the Navy and worked while attending college to cover the costs. He is interested in assisting students who have demonstrated need for financial assistance in order to attend Calvin. Candidates are students entering any class level at Calvin who demonstrate willingness to earn some college

expenses by working summers or part-time during the school year, or both. They must also take a reasonable work load so that the degree sought can be reached in a normal time frame, such as a B.A. in four years. A grade point average of 2.70 or higher is required. Preference is given to students from the following Michigan churches: Calvary CRC in Lowell, Maple Avenue Ministries in Holland, Brookside CRC and Rogers Heights CRC in Grand Rapids, and Martin RCA in Martin. Preference is also given to students from Faith CRC in New Brighton, MN. No separate application is required. This scholarship is automatically renewable as long as the student is making satisfactory academic progress. One scholarship of $1,500 was awarded for 2007-2008.

Phyllis Van Dam De Vries Scholarship An alumna of Calvin, Ms. De Vries of Caledonia, Michigan, established this scholarship for students who are seriously seeking a career and are not clear as to which direction they should go. Candidates are students entering any class level at Calvin, with preference given to those who pay at least a portion of their own tuition. A high school cumulative grade point average of 3.00 or higher is required for first-year students and a cumulative grade point average of 2.70 or higher is required for returning students. Special consideration will be given to students who have taken or are planning to take a course in Human Resource Management. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $1,900 was awarded for 2007-2008.

De Vries-Visser Scholarship The family of Mr. Wiebe and Mrs. Gertrude De Vries of Pella, Iowa, established this scholarship in recognition of the many years of service that they and their son and daughter-in-law, Harold and Leona De Vries, have given for the cause of Christian education. Candidates are graduates of Pella Christian High School or Pella High School who are planning to attend Calvin. Selection is based on Christian character, promise of growth, and evidence of participation and leadership in activities outside the classroom such as church, community, and extracurricular school activities, other than athletics. They must have a cumulative high school grade point average of 3.00 or higher. Financial need is not required. Selection is made by Pella Christian High School. This scholarship is automatically renewable for three additional years if a cumulative grade point average of 2.50 is maintained. Two scholarships of $1,200 were awarded for 2007-2008.

Kathryn De Weerd Memorial Scholarship This scholarship honors the memory of Ms. De Weerd, a life-long member of the Pillar Christian Reformed Church in Holland, Michigan, and her deeply held belief that Chiropractic Medicine, which helped her attain an advanced age, should be pursued by Christian young women and men and considered a worthy profession, and an important alternative to the medical profession. Candidates are Calvin students entering their junior or senior year. First preference is given to those planning a career in Chiropractic Medicine, second preference is given to those in Osteopathic Medicine, and third preference is given to those in Physical Therapy. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $2,300 were awarded for 2007-2008.

Henry and Eunice DeWit Scholarship This scholarship was established by the family of Henry and Eunice DeWit in appreciation for what Calvin has meant to their family. The scholarship also honors Henry's years of service to Calvin, both as a teacher and as an administrative leader, and Eunice's years of support to Calvin through her volunteer work. Candidates are Calvin students entering any class level. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. No separate application is required. Current recipients will be given equal consideration with other candidates. One scholarship of $2,200 was awarded for 2007-2008.

Elizabeth and Wesley DeYoung Scholarship This scholarship was established by the children of Elizabeth and Wesley DeYoung to celebrates their lives and contributions. Elizabeth and Wesley loved Calvin and their faith was always most fervently on display when conveying God's truth to new generations. They both are 1939 graduates of Calvin; Wesley went on to become a dentist, Elizabeth was a teacher and homemaker. Calvin remained dear to them all their lives. Wesley spent many, many hours raising funds for the new Knollcrest Campus and served throughout the 1960's on Calvin's Board of Trustees. In their adulthood Elizabeth and Wesley found a natural affinity, an exceptional passion and commitment for expressing their faith to and nurturing the faith of adolescents. Their experience as church youth leaders was formational in their Christian journey, both in what they offered and in the blessings they received. A scholarship for the purpose of encouraging ministry among youth will honor their work and memory. Candidates are Calvin students entering their sophomore, junior, or senior year who are currently involved in youth ministry and/or demonstrate an interest. They must have a grade point average of 2.50 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $3,200 was awarded for 2007-2008.

Bruce Dice Scholarship Mr. Bruce Dice of Houston, Texas, established this scholarship out of a desire to help deserving, Christian young people who are in need of financial assistance to attend Calvin and who would likely not be able to attend Calvin otherwise. Mr. Dice was raised and educated with a strong Christian faith and had many opportunities to express that Christian faith in his personal and professional life by both words and deeds. He would like to perpetuate that commitment in successive generations by assuring a scholarship to a deserving person, who with appropriate learning in a Christian environment at Calvin, will be prepared to express that Christianity in the world and to make a difference. Candidates are U.S. or Canadian citizens entering their first year at Calvin who are planning to pursue a major or program other than Sociology. They must have been raised in the Reformed or Presbyterian traditions and demonstrate a strong Christian faith. They must have a high school grade point average of 3.00 or higher and demonstrate some evidence of financial need. No separate application is required. This scholarship can be renewed for three years if the student maintains a cumulative grade point average at Calvin of 2.50 or higher and show signs of a deepening faith through learning. One scholarship of $6,300 was awarded for 2007-2008.

Diekema Family Scholarship Anthony J. Diekema was president of Calvin for twenty years, from 1976 through 1995. He and his wife Jeane are both alumni of Calvin, and six of their seven children graduated from Calvin during the years of his presidency. They have established this scholarship in grateful acknowledgment of the academically excellent Christian education they all received. During the years of his presidency, President Diekema maintained a strong interest in and support for student aid programs. He also was one of the leaders on campus in seeking to bring about a more diverse student body. Because of these interests and the special needs of these students, this scholarship was established to assist exceptionally needy students who have the ability and potential to benefit from a Calvin education but would not have the opportunity without a scholarship like this. Candidates are students entering their first year at Calvin who have exceptional financial need, with preference given to North American ethnic minority students. They must have a high school grade point average of 3.00 or higher. No separate application is required. This scholarship is automatically renewable for up to three years if the student maintains a cumulative grade point average of 2.00 or higher and continues to demonstrate financial need. Two scholarships of $2,800 were awarded for 2007-2008.

Dr. Paul and Mrs. Doris Dirkse Health Care Scholarship This scholarship was established by Dr. Paul and Mrs. Doris Dirkse of

East Peoria, Illinois. Because of Dr. Dirkse's involvement with the medical profession, the Dirkses have requested that the funds be used for students interested in health care professions. Candidates are Calvin students entering their junior or senior year who are pursuing a program in medicine, dentistry, physical therapy or other related health-care professions. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Nine scholarships of $2,000 were awarded for 2007-2008.

Mary Cannon Dively Scholarship This scholarship was established by Ms. Mary Cannon Dively of Grand Rapids, Michigan, to help worthy, needy students with their college expenses. Ms. Dively taught in Grand Rapids area schools for more than forty years and believes strongly in the value of education. Candidates are Calvin students entering their sophomore, junior, or senior year. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. No separate application is required. Current recipients will be given equal consideration with other candidates. One scholarship of $1,500 was awarded for 2007-2008.

Arnold and Mary Dood Medical Services Scholarship The children of Arnold and Mary Dood established this scholarship as a tribute to the Christian love and service exemplified by their parents throughout their careers in the medical service field. Candidates are Calvin students entering their sophomore, junior, or senior year who are pursuing a nursing or pre-medical degree and who exhibit a spirit of service and giving to others. They must have a cumulative grade point average of 3.30 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Two scholarships of $2,200 were awarded for 2007-2008.

Wayne and Ruth Dornbush Family Dean's Scholarship Mr. Wayne and Mrs. Ruth Dornbush have been life-long supporters of Christian education at all levels and have witnessed and appreciated the tremendous difference it has made in their lives and the lives of their children. In thankfulness for the Christ-centered education their family received at Calvin, and for the many blessings God has provided them, they established this scholarship for students who have achieved academic excellence. No separate application is required. This scholarship is automatically renewable if a grade point average of 3.40 or higher is maintained. Each year one prospective first year student receiving a Dean's Scholarship will be designated as the Wayne and Ruth Dornbush Family Scholar.

Kenneth F. Draayer Memorial Scholarship This scholarship was established in memory of Kenneth F. Draayer by his family and friends. Ken was a prominent businessman in the Kalamazoo, Michigan, area who passed away in January 2006, at the age of forty-five. His Christian faith was evident in his integrity in his business dealings, in his concern for quality work, and in his emphasis on customer service. By his actions, Ken thoroughly displayed his understanding of God's calling him to be a Christian witness to those with whom he interacted. Candidates are Calvin students entering their senior year who are able to clearly demonstrate strong Christian character and also a willingness to share their Christian character with those they may come in contact with while following God's calling in their life. Preference is given to students from Kalamazoo County or to those who are pursuing a degree in Business. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply, use the Upper-class Named Scholarship Application available through KnightVision in January. This scholarship is not renewable. One scholarship of $1,500 was awarded for 2007-2008.

Alexander and Lavonne Dragt Family Honors Scholarship This scholarship was established by Dr. Alexander and Mrs. Lavonne Dragt to be used for the support of students in the Mathematical, Physical and Biologi-

cal Sciences, or Nursing or Music. No separate application is required. This scholarship is automatically renewable if a cumulative grade point average of 3.20 or higher is maintained. Each year two first year students who are Honors Scholarship recipients will be designated as Alexander and Lavonne Dragt Family Honors Scholars.

Gerrit, Beulah, and Robert Dragt Memorial Honors Scholarship This scholarship was established in memory of Dr. Gerrit, Mrs. Beulah, and Mr. Robert Dragt to be used for the support of students in Mathematics, Physical and Biological Sciences, or Nursing or Political Science. No separate application is required. This scholarship is automatically renewable if a cumulative grade point average of 3.20 or higher is maintained. Each year one prospective student who is an Honors Scholarship recipient will be designated as a Gerrit, Beulah, and Robert Dragt Memorial Honors Scholar.

Rev. Donald J. Drost Memorial Scholarship This scholarship was established in memory of Rev. Donald Drost to honor his life of Christian service as a pastor in the Christian Reformed Church. Candidates are students graduating from Muskegon Western Michigan Christian High School who are entering their first year at Calvin. Preference is given to those planning to pursue a program in the ministry in the Christian Reformed Church. They must have a grade point average of 3.30 or higher and demonstrate some evidence of financial need. No separate application is required. This scholarship is automatically renewable for three additional years if a cumulative grade point average of 2.70 or higher is maintained. One scholarship of $5,200 was awarded for 2007-2008.

Brian E. Dyk Memorial Scholarship This scholarship was established to honor and remember Brian Dyk who taught at Grand Rapids West Side Christian Middle School. Even though the number of years that he taught were few, he touched many lives not only in what he taught but in the way he lived. He loved the intricacies and the beauty of science, and encouraged his students to see the Creator all around them. It is hoped that this scholarship will encourage others to choose education as a major and in so doing inspire students to see God in all of creation. Candidates are students entering their first year at Calvin who are planning to major in education. First preference is given to graduates of West Side Christian School (Grand Rapids, MI). Second preference is given to graduates of one of the following Christian High Schools: Calvin Christian (Grandville, MI), Central Wisconsin Christian (Waupun, WI), Grand Rapids Christian (Grand Rapids, MI), Holland Christian (Holland, MI), Kalamazoo Christian (Kalamazoo, MI), Unity Christian (Hudsonville, MI) or Providence Christian (Fremont, MI). There should be some evidence of financial need. To apply, prospective students who are graduates of West Side Christian Middle School should send a letter to the Office of Admissions and Financial Aid describing their qualifications for the scholarship by February 1. This scholarship is not renewable. One scholarship of $1,800 was awarded for 2007-2008.

Mary A. Dykstra Memorial Non-Traditional Student Scholarship God blessed Mary De Haan Dykstra of Byron Center, Michigan, by enabling her to complete her college education at Calvin in 1997, with the support of family and friends, at the non-traditional age of forty-five. While a student at Calvin, she encountered other students who attended Calvin through difficult financial challenges, and as a result, she has a heart for the non-traditional aged student in those kinds of circumstances. She and her husband Gregg established this scholarship in the hope that this will help to ease someone's burdens and be an encouragement to them while they further their education and seek God's guidance for their future. Candidates are non-traditional students entering any class level at Calvin who are at least thirty years of age and who have had a break in their educational program for two years or more after graduating from high school. They must be pursuing an undergraduate degree and should demonstrate some evidence of financial need. First preference is given to students who demonstrate special needs in their life circumstances. Second preference is given to those enrolled less than half time who do not therefore qualify for financial aid programs. To apply or re-apply, use the

Upper-class Named Scholarship Application available through KnightVision in January. Current recipients receive preference over new applicants as long as they are in good academic standing. One scholarship of $1,000 was awarded for 2007-2008.

Eelkema Family Honors Scholarship Sid and Alyda Eelkema of Oak Harbor, Washington, established this scholarship in gratitude to God for all He has given to them, and because of the blessings their family received through attending Calvin. Through their lifelong support of Christian education they wish to share these blessings with the future generations by helping to equip them for a life of Christian commitment in service to God. Candidates are students entering their first year at Calvin. First preference is given to students from Oak Harbor High School in Oak Harbor, Washington. Second preference is given to students who are members of the Christian Reformed Church and who attend one of the Christian schools in the state of Washington. Final selection will be based on Christian character, promise of growth, and participation and leadership in church, community, and extracurricular school activities. No separate application is required. This scholarship is automatically renewable if a grade point average of 3.20 or higher is maintained. Each year one first year student who is an Honors Scholarship recipient will be designated as an Eelkema Family Honors Scholar.

Andy J. Egan Company Scholarship The Andy J. Egan Company, Inc. of Grand Rapids, Michigan, is a mechanical contractor specializing in the construction and maintenance of commercial, industrial, institutional, and educational facilities. The company believes in young people and in the ideals of Calvin, and this scholarship is its way of supporting the mission of the college in a positive and tangible way. Preference is given to a first-year student who is a child or grandchild of an Egan Company employee. If no relatives of an employee are identified, preference will be given to prospective first-year students pursuing a Mechanical Engineering or Business Administration degree. Prospective students must have a cumulative high school grade point average of 3.00 or higher and returning Calvin students must have a cumulative grade point average of 2.50 or higher. There should be some evidence of financial need. To apply, prospective students with a relative employed by the Andy J. Egan Company should send a letter of application to the Office of Admissions and Financial Aid by February 1. This scholarship is not renewable. One scholarship of $2,500 was awarded in 2007-2008.

Jack and Eleanor Elenbaas Family Honors Scholarship Mr. Jack and Mrs. Eleanor Elenbaas established this scholarship to support students at Calvin. Candidates are Calvin students entering their junior or senior year, with preference given to students pursuing an Engineering degree. Other programs such as Accounting, Business, Science, Education or Pre-Seminary may also be considered. They must have a grade point average of 3.20 or higher and demonstrate some evidence of financial need. No separate application is required. This scholarship is automatically renewable if a cumulative grade point average of 3.20 is maintained. Each year two engineering students and one business student who are receiving an Honors Scholarship will be designated as Jack R. and Eleanor Elenbaas Family Honors Scholars.

Elmhurst Christian Reformed Church Scholarship Members of Elmhurst Christian Reformed Church in Elmhurst, Illinois, established this scholarship to financially assist students who are members of Elmhurst Christian Reformed Church. Candidates are students entering any class level at Calvin. To apply or re-apply, contact Elmhurst Christian Reformed Church.

Emerson Minority Scholarship Calvin has received gifts from the late Mr. James and Mrs. Marjorie Emerson to be used for scholarships to North American ethnic minority students. Candidates are students entering any class level at Calvin, with preference given to students from single-parent families. They must have a grade point average of 2.50 or higher and demonstrate some evidence of financial need. No separate application is required. This scholarship is automatically renewable if the student remains in good academic standing and continues to demonstrate financial need. Three scholarships of $1,800 were awarded for 2007-2008.

Enoch Grant With gratitude to God for their heritage, the Schuuring Family established the Enoch Grant. When a student walks with God, that student reflects the love, joy, peace, forgiveness, kindness, self-control, humbleness, and generosity of God. Candidates are seniors graduating from Hudsonville Unity Christian or Holland Christian high schools who are planning to attend Calvin. Because God has forgiven us and gives us second chances, the Schuurings recognize that students may not have achieved high academic excellence in high school but have demonstrated that they have the ability and desire to excel at Calvin. Therefore, this grant is available to any graduate that reflects the aforementioned traits and meets the entrance requirements of Calvin. Financial need is not required. Each high school listed above will nominate one graduating senior. No separate application is required. This award is not renewable. Two awards of $1,000 were awarded for 2007-2008.

Faith Works Scholarship Mr. Mike and Mrs. Gayle Van Gessel have had a long time relationship with the Inner City Christian Federation (ICCF). This organization teaches parents the skills necessary for home ownership and then helps them in acquiring and maintaining a home. The donors of the scholarship would like the children of ICCF homeowners to experience the same thrill of success by making funds available to these children for an education at Calvin. Candidates are students entering their first year at Calvin who have the drive to be successful, a desire to learn, and an acceptable academic record. First preference is given to a resident of ICCF housing who has gone through the Calvin Entrada Scholars Program. Second preference is given to a resident of ICCF housing. Third preference is given to an ethnic minority student who has graduated from a Grand Rapids Public High School. Fourth preference is given to an ethnic minority student who has graduated from Grand Rapids Christian High School. Financial need is required. To apply, contact ICCF. This scholarship is automatically renewable if the student continues to make satisfactory progress towards graduation. One scholarship of $3,000 was awarded for 2007-2008.

John G. and Anne Feringa Scholarship Mr. John and Mrs. Anne Feringa of Rockford, Michigan, established this scholarship out of a desire to help worthy, needy students with their college expenses. Candidates are students entering their first year at Calvin, with preference given to those not receiving another Calvin-awarded scholarship who have been actively involved in church, community, and extracurricular school activities. They must have a cumulative high school grade point average of 3.00 or higher and demonstrate some evidence of financial need. No separate application is required. This scholarship is automatically renewable for a second year for those who earn a grade point average of 2.50 or higher their first year at Calvin. Eight scholarships of $2,000 were awarded for 2007-2008.

August Frankena Memorial Dean's Scholarship Mrs. Theresa Frankena of Jamestown, North Carolina, established this scholarship in memory of her husband, Mr. August Frankena. Both Mr. and Mrs. Frankena graduated from Calvin, as did their son Bart. The Frankenas are longtime supporters of Christian education, and now Mrs. Frankena wishes to provide others with the same opportunity she and her husband had to attend Calvin. Candidates are Calvin students entering their junior or senior year who are pursuing an engineering degree. No separate application is required. This scholarship is automatically renewable if the student maintains a grade point average of 3.40 or higher and remains in the Engineering program. Each year one engineering student receiving a Dean's Scholarship will be designated as an August Frankena Memorial Scholar.

Grand Rapids Community Foundation Scholarship As a result of a bequest by the late Stephen D. Lankester to the Grand Rapids Community Foundation, nine or ten scholarships of $1,000 each are available annually to prospective and returning students from Kent County. The primary purpose of this program is to provide assistance to students with good academic records (3.00 grade point average or higher) who have financial need. To apply or re-apply, contact the Grand Rapids Community Foundation.

Jerry and Lynne Granger Family Scholarship This scholarship was established by Mr. Jerry and Mrs. Lynne Granger of Lansing, Michigan. God has blessed them with a wonderful family (four children, two sons-in-law, one daughter-in-law), all of whom are graduates of Calvin. Their family received quality Christian education from both Lansing Christian School and Calvin College. They have established this scholarship out of gratitude for what they have received and out of a desire to financially assist other families. Candidates are seniors at Lansing Christian High School in Lansing, Michigan, who are planning to attend Calvin the following year and who exhibit Christian character and promise of growth. They must have a high school grade point average of 2.70 or higher and demonstrate some evidence of financial need. Selection is made by Lansing Christian High School. This scholarship is renewable for the sophomore year if a cumulative grade point average of 2.50 or higher is maintained. Four scholarships of $3,000 were awarded for 2007-2008.

Gratitude Foundation Scholarship The Gratitude Foundation established this scholarship out of love for Christian education and the desire to help international students. Candidates are students entering their first year at Calvin who are international students (not from North America) and who intend to return to their home country after graduating from college. They must demonstrate Christian character and promise of growth through participation and leadership in activities outside the classroom such as community, church, and extra-curricular school activities. They must have a grade point average of 2.50 or higher and demonstrate some evidence of financial need. No separate application is required. This scholarship is automatically renewable for up to three years if a cumulative grade point average of 2.50 or higher is maintained. Three scholarships of $2,500 were awarded for 2007-2008.

Carl and Sandra Gronsman Family Scholarship Mr. Carl and Mrs. Sandra Gronsman of Grand Rapids, Michigan, established this scholarship out of gratitude to God for the influence Calvin has had on their lives and on the lives of their children. Mr. and Mrs. Gronsman are both alumni of Calvin, as are their three children. As a tangible expression of that gratitude, they want to assist in making a Calvin education available to others. Candidates are Calvin students entering their junior or senior year who are pursuing a major in Business, Education, Medicine, or Social Work. They must have a cumulative grade point average of 2.75 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $2,500 was awarded for 2007-2008.

William and Winifred Haeck Medical Scholarship Dr. William and Mrs. Winifred Haeck are both graduates of Calvin. Four of their children also attended Calvin. When Dr. Haeck was a senior at Calvin, faculty members were instrumental in obtaining tuition scholarships for him to the University of Chicago and Rush Medical College. Dr. Haeck never forgot that assistance and now wishes to set up a scholarship as a small way to repay Calvin for the assistance and encouragement he received when he was a student. Candidates are Calvin students entering their junior or senior year who are pursuing a pre-medical program. They must have a cumulative grade point average of 3.30 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Two scholarships of $1,600 were awarded for 2007-2008.

Hamstra Foundation Scholarship The trustees of the Bernard and Dorothy Hamstra Charitable Foundation established this scholarship in recognition of the Hamstras' dedicated support of Christian education. Scholarships are awarded to students from northern and central New Jersey, with priority given to those from Eastern Christian High School in North Haledon, New Jersey. Candidates are students entering their first year at Calvin. Selection is based on Chris-

tian character, a strong work ethic or motivation, academic achievement, and leadership ability. They must have a high school grade point average of 3.00 or higher and demonstrate some evidence of financial need. No separate application is required. This scholarship is renewable for up to three years if the student is in good standing and is making satisfactory academic progress. Eight scholarships of $3,500 were awarded for 2007-2008.

Herbert H. Hansen and Colby E. Morath Memorial Scholarship Marjory Hansen of Woodstock, Illinois, established this scholarship in the memory of two very important people in her life—her husband of 56 years, Herbert, and her grandson Colby. The two men were very close, and both died within one year of each other. Colby was killed in a tragic car accident during his sophomore year at Calvin. This scholarship, which honors him and his grandfather, is given to help a student with financial need. Candidates are students entering any class level at Calvin and who are pursuing any major. No separate application is required. Current recipients will be given equal consideration with other candidates. One scholarship of $800 was awarded for 2007-2008.

George G. Harper Scholarship Mr. Don and Mrs. Carol Holtrop of Montague, Michigan, established this scholarship in honor of Dr. George G. Harper, who gave many years of service to Calvin, principally as professor of English, but also as a counselor of students, mentor to young faculty members, repository of insightful memories and stories, and valuable volunteer. Candidates are Calvin African American students who have U.S. residency and who are entering their junior or senior year, with preference given to those pursuing a major or minor in English. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. No separate application is required. Current recipients will be given equal consideration with other candidates. Three scholarships of $1,900 were awarded for 2007-2008.

James and Catherine Haveman Family Scholarship In appreciation for what Calvin has done in the past and the impact that Calvin will continue to have in the future, the James and Catherine Haveman family established this scholarship to assist students who have financial need to obtain a Christian college education. James K. Haveman, Sr. was a noted Grand Rapids architect, recognized for his design of many Grand Rapids and Western Michigan area churches and schools. Mr. Haveman was one of the three architects involved in developing the buildings of Calvin's Knollcrest campus according to the master plan. Mrs. Catherine Haveman was an elementary education teacher for several years. Their three children all attended Calvin and some of their grandchildren are graduates. Candidates are students entering their first year at Calvin, with preference given to students planning to pursue a program in pre-architecture, primary education, social work, or engineering. They must have a cumulative high school grade point average of 2.50 or higher and must demonstrate some evidence of financial need. No separate application is required. This scholarship can be renewed for the sophomore year if the student is making satisfactory academic progress and if they continue to pursue a program in pre-architecture, primary education, social work, or engineering. Eight scholarships of $1,500 were awarded for 2007-2008.

Reverend Bernard Haven Memorial Scholarship This scholarship was established in memory of Reverend Bernard Haven, a graduate of Calvin College and Calvin Seminary. Reverend Haven joyfully served the Lord on the Zuni mission field. Relatives of Rev. Haven desire to assist students whose parents are serving God on the mission field. Candidates are students entering their first year at Calvin who are children of a missionary and who are intending to major in a Pre-Seminary or Education program. Special consideration will be given to those pursuing a degree in Philosophy, English, or History. They must have a cumulative high school grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply, prospective students should send a letter describing their qualifications for the scholarship to the Office of Admissions and Financial Aid by February 1. This scholarship is au-

tomatically renewable if the student maintains a cumulative grade point average of 2.70 or higher and continues to exhibit Christian character. Three scholarships of $2,500 were awarded for 2007-2008.

Hearing Impaired Scholarship This scholarship was funded by the numerous family and friends of the Pauw, Plantinga, and Van Harn families out of their desire to help hearing impaired students obtain a Calvin education. Candidates are students entering any class level at Calvin who can give evidence of suffering from deafness or a hearing impairment. There should be some evidence of financial need. To apply, prospective students should send a letter to the Office of Admissions and Financial Aid describing their qualifications for the scholarship by February 1. No separate application is required for returning students. Preference is given to renewals. Two scholarships of $1,900 were awarded for 2007-2008.

Hearst Foundation Scholarship The Hearst Foundation and the William Randolph Hearst Foundation were founded in the 1940's by publisher and philanthropist William Randolph Hearst. Mr. Hearst built a media empire which included the "San Francisco Examiner" and other newspaper, book, and magazine publications as well as television and radio broadcasting interests. The two foundations reflect the philanthropic interests of Mr. Hearst: Human services, education, health, and culture. Specific priorities include "programs to aid poverty-level and minority groups… and education programs with emphasis on private secondary and higher education." Candidates are students entering their first year at Calvin, with preference given to students who have participated in Calvin's Entrada Program. They must have a high school grade point average of 3.00 or higher. No separate application is required. This scholarship is automatically renewable for up to three years for those who maintain a cumulative grade point average at Calvin of 3.00 or higher. Six scholarships of $2,700 were awarded for 2007-2008.

Dewey and Marilyn Heetderks Family Medical Scholarship Dr. Dewey and Mrs. Marilyn Heetderks of Grand Rapids, Michigan, established this scholarship for a student planning a career in medicine. Candidates are Calvin students entering their junior or senior year who are pursuing a pre-medical program. Factors considered include the student's Christian commitment and interest in medical missions. They must have a cumulative grade point average of 3.30 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $2,200 was awarded for 2007-2008.

Jacob and Kathryn S. Hekman Scholarship This scholarship was established by Jacob and Kathryn (Schneider) Hekman in appreciation for the training received at Calvin College. Kathryn is a graduate of Calvin College and Jacob is a graduate of both Calvin College and Calvin Seminary. Together they have served congregations and Christian institutions for over fifty years. They are eager to encourage young people to experience the joy of Christian service that they have realized over their lifetime. It is their desire to assist a pre-seminary student in achieving this goal of service in Christian ministry, preferably within the Christian Reformed Church. Candidates are Calvin students entering their junior or senior year who are pursuing a pre-seminary course of study and who are planning to attend Calvin Theological Seminary. They must demonstrate excellent Christian character and willingness to follow a life of service to God. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply, use the Upper-class Named Scholarship Application available through KnightVision in January. This scholarship is automatically renewable if the student continues in a pre-seminary program and maintains a cumulative grade point average of 3.00 or higher. One scholarship of $1,500 was awarded for 2007-2008.

Bud and Clarice Hendrickson Scholarship Lawrence (Bud) and Clarice Hendrickson have a deep love for Calvin. Bud was a member of the class of 1940, and an athlete

who played on championship men's tennis and basketball teams. He made many exceptional friends during his college years. They have proven to be friends for a lifetime. Bud had to pay his own way through college, so he and Clarice know what it means to sacrifice for a Christian education. After graduation they married and he went on to become a successful realtor in the Grand Rapids area. The Hendricksons are grateful for Calvin and appreciate the quality education it provides. They also have a warm heart for students. They have established this scholarship to benefit another generation of Calvin students, with a special interest in assisting students with financial need. Candidates are students entering any class level at Calvin. They must have a grade point average of 2.50 or higher and demonstrate some evidence of financial need. No separate application is required. Current recipients will be given equal consideration with other candidates. Three scholarships of $1,700 were awarded for 2007-2008.

Heritage Class Scholarship Members of Calvin graduating classes of more than fifty years ago make annual donations to the Heritage Class Scholarship fund to honor current Calvin students with scholarships. Candidates are Calvin students entering their sophomore, junior, or senior year. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. No separate application is required. Current recipients will be given equal consideration with other candidates. Six scholarships of $2,200 were awarded for 2007-2008.

Roger W. Heyns Presidential Scholarship This scholarship was established in honor of Dr. Roger W. Heyns, a 1940 graduate of Calvin, who had a long and distinguished career in education. His appointments included Professor of Psychology and Vice President of Academic Affairs at the University of Michigan, Chancellor of the University of California at Berkeley, and President of the American Council on Education. Funds for the scholarships are provided by the William and Flora Hewlett Foundation where Dr. Heyns served as president from 1977 through 1992. No separate application is required. This scholarship is automatically renewable if a cumulative grade point average of 3.50 or higher is maintained. Each year five or more students receiving Presidential Scholarships are designated as Roger W. Heyns Presidential Scholars.

Frank and Bernice Hiskes Scholarship Frank and Bernice Iwema Hiskes were life-long supporters of Christian education at every level, from elementary school through high school and college. They were committed to the ideals of Christian education, but they were grateful for the blessings that accompany it. Their children established this scholarship in their honor—to keep alive their parents' commitments to covenant and kingdom, and in hope of continued blessings on Christian education. Candidates are students entering their first year or sophomore year at Calvin who are pursuing a degree in Engineering or Business. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. No separate application is required. This scholarship is not renewable. One scholarship of $1,500 was awarded for 2007-2008.

Dr. Roger A. and Bradley J. Hoekstra Memorial Scholarship Mrs. Janice Veenstra established this scholarship in memory of her late husband, Roger, and son, Bradley. Roger A. Hoekstra, M.D., an alumnus and supporter of Calvin, and his son, Bradley J., an outstanding sophomore premedical student at Calvin, were tragically killed in an airplane accident in July 1981. Candidates are Calvin students entering their junior or senior year who are pursuing a program in health professions. Selection is based primarily on the student's academic record and potential, although financial need is also taken into consideration. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Four scholarships of $2,200 were awarded in 2007-2008.

Dewey and Kay Hoitenga Honors Scholarship As alumni of Calvin, Dewey and Kay (Bos) Hoitenga are thankful for the Christ-centered education they received. Both of their fathers, as well as all four of their children, are also graduates of Calvin.

This scholarship was established in appreciation for what Calvin has meant to their entire family. Candidates are students entering their first year at Calvin. Financial need is not required. No separate application is required. This scholarship is not renewable. Each year two prospective students who are receiving an Honors Scholarship will be designated as the Dewey and Kay Hoitenga Honors Scholar.

Donald and Barbara Holtrop Family Scholarship This scholarship was established by Donald and Barbara Holtrop to honor their parents, Henry and Katie Holtrop and Cornelius and Annette Schuitema. They are thankful to their parents who sacrificed to give their children a Christ-centered education. Candidates are students entering their first year at Calvin who demonstrate Christian character and promise of growth through participation and leadership outside of the classroom, such as community, church and extracurricular school activities. They must be graduates of Grandville Calvin Christian High School or Muskegon Western Michigan Christian High School. They must also have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. No separate application is required. This scholarship is not renewable. One scholarship of $1,500 was awarded for 2007-2008.

Anton and Sena Hoogewind Scholarship Sena Thomas Hoogewind established this scholarship in memory of her husband, Anton, to help deserving students obtain a Christian education. It is her desire to acknowledge students who have demonstrated strong Christian character as well as leadership in church and school activities other than athletics. Candidates are students entering their first year at Calvin who have attended Grand Rapids Christian High School. They must have a high school grade point average of 2.60 or higher and demonstrate some evidence of financial need. No separate application is required. This scholarship is automatically renewable if a cumulative grade point average of 2.60 or higher is maintained. Two scholarships of $3,000 were awarded for 2007-2008.

Chris and Carla Huang Minority Scholarship Chris and Carla Huang desire to see Calvin continue to be enriched by cultural and racial diversity and want to encourage minority students to consider Calvin. Their hope is that by funding this scholarship, the Calvin community will more fully reflect the body of Christ and be one with Him. Candidates are students entering their first year at Calvin. First preference is given to students of Chinese descent and second preference is given to students of Asian descent. There should be some evidence of financial need. No separate application is required. This scholarship is not renewable. One scholarship of $750 was awarded for 2007-2008.

Ann, Myrtle, Eunice, Faith and Marie Huizenga Scholarship for Women This scholarship was established by Philip L. Huizenga in honor and recognition of his sisters, Ann Huizenga, Myrtle Wells, Eunice Odom, Faith Hondorp, and his wife, Marie Houtman Huizenga, for the love, care and guidance they provided to him while he was growing up and during his marriage to Marie. Dr. and Mrs. Lee S. Huizenga were Christian Reformed Church medical missionaries to China from October 20, 1920, to the end of World War II in 1945. Philip became part of their family as an infant in June of 1938 when he was "rescued" from a Shanghai orphanage by Myrtle who worked there as a nurse. The Huizenga household was very busy but in spite of their schedules and the hardships inherent with being a medical missionary family in a foreign land, they made time to take into their lives a newborn. This scholarship is intended to assist women students pursuing careers in the fields of medicine and social work with an interest in missions or service work. Candidates are Calvin students entering their junior or senior year who are pursuing a career in the medical field such as physician, nurse, laboratory technician, administration, or social work. They must demonstrate a caring attitude and be interested in missions and a life of Christian service. They must have a grade point average of 3.20 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $2,200 was awarded for 2007-2008.

Clarence Huizenga Family Faculty Honors Scholarship This scholarship was established by Mrs. Marian Huizenga in memory of her husband, Clarence. Mr. Huizenga attended Calvin and later went on to become a successful businessman. Throughout their lives the Huizengas have displayed a tremendous love for Christian education. They have also been long time supporters of Calvin. It is Mrs. Huizenga's desire to assist students in either a business or economics program in achieving a quality Christian education. Candidates are Calvin students entering their junior or senior year who are interested in pursuing a degree in business or economics. No separate application is required. This scholarship is automatically renewable if a cumulative grade point average of 3.30 or higher is maintained. Each year a student receiving a Faculty Honors Scholarship will be designated as a Clarence Huizenga Family Faculty Honors Scholar.

Dr. and Mrs. Lee S. Huizenga Memorial Scholarship This scholarship was established by the children of Dr. and Mrs. Lee S. Huizenga to remember their parents' lifelong commitment to "preach the gospel - heal the sick" in missions. Dr. Huizenga served in China from 1920 to 1945 and was recognized internationally for his research and work in leprosy and tuberculosis. This scholarship is intended to assist a student pursuing a career in ministry or medicine with an interest in missions or service work. Candidates are Calvin students entering their junior or senior year who are pursuing either a pre-medical or pre-seminary program. They must have a grade point average of 3.20 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Two scholarships of $1,700 were awarded for 2007-2008.

Marti and Wayne Huizenga Family Presidential Scholarship Wayne Huizenga was a student at Calvin during the 1950's. Throughout a long and successful career in building entrepreneurial business organizations, he and his wife, Marti, have maintained a strong interest in young people and have supported their educational efforts. The Huizenga family has been especially active in philanthropic and charitable efforts throughout south Florida for many years. Because of these interests, this scholarship is established to assist students from south Florida to attend Calvin. Financial need may be considered. No separate application is required. This scholarship is automatically renewable if a cumulative grade point average of 3.50 or higher is maintained. Each year two or more students receiving the Presidential Scholarship will be designated as Marti and Wayne Huizenga Family Presidential Scholars.

Huntington National Bank Scholarship This scholarship was established by Huntington National Bank. Candidates are students entering their first year at Calvin, with preference given to students from western or central Michigan who are not receiving one of the Calvin merit-based scholarships. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. No separate application is required. This scholarship is not renewable. Two scholarships of $1,700 were awarded for 2007-2008.

Ipema/Wells Family Minority Scholarship This scholarship was established by Brad Ipema, Kirstin Wells, and other friends of the Calvin community to encourage greater ethnic and racial diversity within the Calvin student body. Candidates are North American ethnic minority students entering their first year at Calvin. They must have a high school grade point average of 2.50 or higher and demonstrate some evidence of financial need. No separate application is required. This scholarship is not renewable. Two scholarships of $2,000 were awarded for 2007-2008.

Jacobsen Family Dean's Scholarship This scholarship was established to allow students to receive the same type of education that was received by Roger Jacobsen, who had a wonderful experience at Calvin. The family is pleased with the excellent Christian liberal arts education he received. Candidates are Calvin students entering their senior year. First preference is given to students pursuing an Education degree.

Second preference is given to students pursuing a Business or Economics degree. No separate application is required. This scholarship is not renewable. Each year two students entering their senior year who are receiving a Dean's Scholarship will be designated as the Jacobsen Family Dean's Scholar.

Nicholas Jelles Honors Scholarship Dr. Nicholas Jelles attended Calvin as a pre-dental student in the late 1920's. Though he appreciated his Calvin education immensely, especially the courses with Dr. Jellema, he regretted not being able to take more liberal arts courses. This scholarship is intended to encourage students in their liberal arts education. First preference will be given to a pre-dental student. No separate application is required. This scholarship is not renewable. Each year a number of students receiving an Honors Scholarship will be designated as Nicholas Jelles Honors Scholars.

Ken and Joyce Jipping Family Scholarship This scholarship was established by Mr. Ken and Mrs. Joyce Jipping of Jenison, Michigan, in thankfulness to God for the education that Ken and their children Kathy, Lori, Doug, and Dan received at Calvin. They appreciated the Christian environment at Calvin and the excellent education they received. Their education was well received in the academic community and in their work place. They would like to encourage other students to attend Calvin by offering this scholarship. Candidates are students entering their first year at Calvin who are graduates from Hudsonville Unity Christian High School. They must exhibit Christian character, promise of growth, and evidence that they have given of themselves in activities, other than athletics, in their church and/or community. They must also have a high school cumulative grade point average of 2.70 or higher and demonstrate some evidence of financial need. Recipients are selected by Unity Christian High School. This scholarship is renewable for up to three years if the student remains in good standing and continues to exhibit Christian character in their activities at Calvin. Four scholarships of $1,500 were awarded for 2007-2008.

Wilhemina Kalsbeek Memorial Scholarship Family and friends of Wilhemina Kalsbeek established this scholarship in memory of her and her missionary work in mainland China from 1922 until 1949. The purpose of this scholarship is to assist with a Christian college education for students from mainland China who in turn can bring the Christian faith to the Chinese people. Candidates are students entering any class level at Calvin who are from mainland China or another Asian country, with preference given to students from mainland China. They must be committed to return to Asia, be proficient in speaking and writing the English language, and be qualified to do college-level work. Also considered is the student's academic potential and financial need. No separate application is required. This scholarship is automatically renewable as long as the student continues to meet all the criteria. Five scholarships of $2,000 were awarded for 2007-2008.

Rick and Jaltina Kehr Family Scholarship Mr. Rick and Mrs. Jaltina Kehr are strong supporters of Christian education. This scholarship was established to assist qualified students to attend Calvin. Candidates are students entering their first year at Calvin who are graduates of Calvin Christian High School in Grandville, Michigan, or Sussex Christian School in Sussex, New Jersey. They must have a cumulative grade point average of 2.80 or higher and demonstrate some evidence of financial need. No separate application is required. This scholarship is automatically renewable if a cumulative grade point average of 2.80 or higher is maintained. Two scholarships of $1,700 were awarded for 2007-2008.

William R. Kenan, Jr. Presidential Scholarship This scholarship was established in honor of Mr. William Rand Kenan, who established the William R. Kenan, Jr. Charitable Trust in 1966, and who believed that "a good education is the most cherished gift an individual can receive." The trust has chosen to emphasize gifts to private educational institutions, preferring to give a small number of substantial grants that can make a real difference to the institution. Candidates are students entering their first

year at Calvin, with preference given to students from North Carolina. No separate application is required. This scholarship is automatically renewable if a grade point average of 3.50 or higher is maintained. Each year three prospective students receiving Presidential Scholarships are designated as William R. Kenan, Jr. Presidential Scholars.

Dr. Harry Kok Memorial Scholarship This scholarship was established in memory of Dr. Harry Kok and is given primarily for achievement in scholarship, although other factors such as financial need are taken into consideration. Candidates are Calvin students entering their senior year. No separate application is required. This scholarship is not renewable. Three scholarships of $2,000 were awarded in 2007-2008.

Loranna Konrad Memorial Scholarship This scholarship was established by Dr. Walter Konrad of Grosse Point Farms, Michigan, in memory of his late wife, Loranna, to benefit students attending Calvin who do not come from Dutch or Reformed ethnic or religious backgrounds. Candidates are students entering their first year at Calvin. Ethnic and religious backgrounds are considered. They must have a high school grade point average of 3.00 or higher and demonstrate some evidence of financial need. No separate application is required. This scholarship is not renewable. One scholarship of $1,900 was awarded for 2007-2008.

John C. and Barbara M. Kool Scholarship This scholarship was established to recognize Mr. John C. and Mrs. Barbara M. Kool. The Kools immigrated to Grand Rapids, Michigan, from the Netherlands in 1953 and dedicated themselves to the Christian education of their four children. They gave their all to provide an education that they themselves were never privileged to enjoy. Their faithfulness and love is archetypal of the spirit in which Calvin was founded. Candidates are students entering any class level at Calvin. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. No separate application is required. This scholarship is automatically renewable if a cumulative grade point average of 3.00 or higher is maintained. Two scholarships of $2,000 were awarded for 2007-2008.

Warren and Dorothy Koop Scholarship Warren and Dorothy Koop were blessed with four sons and each of the four sons had a different make-up as each was called to do something completely different from his siblings. Warren and Dorothy were very supportive of their sons, making sure that each had the opportunity of a Christian education. They were good hearted parents, loving each son for who he was in spite of each son's different abilities. Calvin was, and is, important to the Koops. Both parents were committed to higher education taught from a Christian perspective. Since they fully understood the fact that each child learns differently, the Koops are interested in providing a scholarship to a student who doesn't learn quite the same way that most teachers teach. The SAS program at Calvin addresses differences in learning styles and the Koops would like to support a student that is making the best of their ability, especially a student who is challenged and making progress in spite of learning difficulties. Warren Koop was a very successful entrepreneur prior to his untimely death. The Koops would like to see this award given to a business student who shows an entrepreneurial spirit. Candidates are Calvin students majoring in Business who are working to the best of their ability through the tutoring program offered by the SAS department. They must have a grade point average of 2.80 or higher and demonstrate some evidence of financial need. No separate application is required. This scholarship is automatically renewable if a cumulative grade point average of 2.80 or higher is maintained. One scholarship of $2,800 was awarded for 2007-2008.

Henry J. and Myrtle R. Kreulen Family Scholarship Dr. Henry and Mrs. Myrtle Kreulen of Grand Rapids, Michigan, established this scholarship out of gratitude for the Christian education they and several of their children and grandchildren have received at Calvin. This scholarship is to be used to help students who desire and are qualified for a Calvin education but who may not be able to attend because of cost. Candidates are students entering their first year at Calvin, with preference given to students with the greatest need and who are not receiving other scholarships awarded by Calvin. They must have a

high school grade point average of 3.20 or higher. No separate application is required. This scholarship is automatically renewable for the sophomore year if a cumulative Calvin grade point average of 3.00 or higher is maintained. Four scholarships of $2,000 were awarded for 2007-2008.

Thomas and Rosalie Kreulen Scholarship Dr. Thomas and Rosalie Kreulen established this scholarship for students who demonstrate a commitment to Christian service. The Kreulens are grateful to God for the wonderful Christian education that they received at Calvin and they want to make it possible for others to be enriched as they were. Candidates are students entering any class level at Calvin who desire to live a life of Christian service, with preference given to ethnic minorities and the physically disabled. They must demonstrate some evidence of financial need. No separate application is required. This scholarship is automatically renewable if the student demonstrates good academic performance. One scholarship of $2,500 or more were awarded for 2007-2008.

Leonard M. Krull Scholarship In 1971, Calvin received a bequest from the late Leonard M. Krull of Westborough, Massachusetts, to provide scholarships for qualified students from the Whitinsville area to attend Calvin. Candidates are students entering their first year at Calvin who are from Whitinsville and who have attended either Pleasant Street Christian Reformed Church, Fairlawn Christian Reformed Church, or the New England Chapel. Students must give evidence of being a committed Christian and have a school record that is free of behavior problems. They must also be involved with school, church and community activities. Also considered is the student's academic record, ACT, or SAT scores, and, in some cases, on financial need. No separate application is required. Selection is made by a representative committee from the Whitinsville area in consultation with the Committee on Scholarships and Financial Aid. Renewability is determined by the Krull Scholarship committee. This scholarship ranges from $350 to $1,250.

Florence G. Kuipers Scholarship Dr. Florence Kuipers is an alumna of Calvin who, through her work with the government and with Wycliffe Bible Translators, has developed a sensitivity to the educational needs of displaced and minority people in the world. She established this scholarship to assist minority students in obtaining a Christian college education at Calvin. Candidates are North American ethnic minority students who demonstrate financial need. Students entering their first year at Calvin must have a high school grade point average of 3.00 or higher and transfer and returning Calvin students must have a previous college grade point average of 2.50 or higher. No separate application is required. Scholarships are automatically renewable if a cumulative Calvin grade point average of 2.50 or higher is maintained. Two scholarships of $1,300 were awarded for 2007-2008.

Kunnen Family International Student Scholarship Mr. Ron and Mrs. Anne Kunnen established this scholarship in gratitude for God's blessings to them. The Kunnens wish to share these blessings with students who exemplify a Christian commitment and who will pursue academic excellence at Calvin, where excellence is the standard and not a goal. Preference is given to students pursuing a science or medicine degree who come from a developing nation with the intention of returning to that country after completion of his/her education. No separate application is required. This scholarship is automatically renewable if a cumulative grade point average of 3.00 is maintained. Each year one top international student will receive this $6,500 scholarship.

Kunnen Family Mosaic Award Mr. Ron and Mrs. Anne Kunnen established this scholarship in gratitude for God's blessings to them. The Kunnens wish to share these blessings with students who exemplify a Christian commitment and who will pursue academic excellence at Calvin, where excellence is the standard and not a goal. Preference is given to students who have grown up in inner city Grand Rapids, Michigan. No separate application is required. This scholarship is automatically renewable if a cumulative grade point average of 2.50 or higher is maintained. Each year one student receiving a Mosaic Award will be designated as a Kunnen Family Mosaic Scholar.

Kunnen Family Presidential Scholarship Mr. Ron and Mrs. Anne Kunnen established this scholarship in gratitude for God's blessings to them. The Kunnens wish to share these blessings with students who exemplify a Christian commitment and who will pursue academic excellence at Calvin, where excellence is the standard and not a goal. No separate application is required. This scholarship is automatically renewable if a cumulative grade point average of 3.50 or higher is maintained. Each year two students receiving the Presidential Scholarship are designated as Kunnen Family Presidential Scholars.

Milton and Carol Kuyers Family Mosaic Award The Kuyers family established this award in recognition of their long-standing commitment to Christian education and their interest and work in ethnic minority communities. No separate application is required. Scholarships are automatically renewable for up to four years if a Calvin grade point average of 3.20 or higher is maintained. Each year eight or more students receiving Mosaic Awards are designated as Milton and Carol Kuyers Family Mosaic Scholars.

Wilbur A. Lettinga Family Scholarship Mr. Wilbur A. Lettinga has been a strong supporter of both Grand Rapids South Christian High School and Calvin College. Out of gratitude for the excellent Christian education his children have received at both schools, Mr. Lettinga established this scholarship to encourage students from South Christian High School to attend Calvin. Candidates are students entering their first year at Calvin who are graduates of South Christian High School and who demonstrate Christian character, promise of growth, and participation and leadership in activities outside the classroom such as church, community, and extracurricular school activities. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. Selection is made by South Christian High School. This scholarship is not renewable. Two scholarships of $1,750 were awarded for 2007-2008.

Macedonia Scholarship This scholarship was established by Mrs. Dorothy F. Loftus, an alumna of Calvin who for many years has worked in children and family services. Her concern for education, particularly for African Americans, is undergirded by her faith in God and the power of education to create justice and racial equity among people. This scholarship is intended to encourage African American Christians to attend Calvin. Candidates are students entering their first year at Calvin who are African American, are United States citizens, and who demonstrate financial need. First preference is given to students from First Presbyterian Church in Cape May, New Jersey. Second preference is given to students from another church in the Cape May area. Third preference is given to students from the East Coast. No separate application is required. This scholarship is automatically renewable for the sophomore year if a cumulative grade point average of 2.00 or higher is maintained. Two scholarships of $2,000 were awarded for 2007-2008.

Robert S. and Nancy M. MacPherson Scholarship This scholarship was established in recognition of Mr. Robert S. and Mrs. Nancy M. MacPherson. The MacPhersons share a proud Presbyterian heritage of faith and support for education both public and private in this country that dates back to 1750. Their love, wisdom, and reformed faith has guided their children and grandchildren and enriched the church. Candidates are students entering any class level at Calvin. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. No separate application is required. This scholarship is automatically renewable if a cumulative grade point average of 3.00 or higher is maintained. Two scholarships of $2,000 were awarded for 2007-2008.

McGregor/Miller Scholarship This scholarship was established by the designation of a McGregor Fund Trustee, Mr. Eugene A. Miller, for the purpose of providing assistance to financially needy students who have demonstrated academic ability. Candidates are students entering their first year at Calvin who are residents of Southeastern Michigan. They must have a cumulative high school grade point average of 3.00 or higher and demonstrate some evidence of financial need. No separate application is

required. This scholarship is automatically renewable if a cumulative grade point average of 2.50 or higher is maintained. Four scholarships ranging from $2,500 to $7,500 were awarded for 2007-2008.

Medical Challenge Scholarship The donors established this scholarship out of appreciation for the support that Student Academic Services provided for their child. They would like to encourage students with diagnosed learning disabilities who must utilize alternative learning strategies to bolster academic success, especially those students who plan to pursue careers in nursing or other medical fields. Candidates are Calvin students entering their junior or senior year who are nursing students or pre-med students with a learning disability. They must demonstrate strong Christian character and a desire to model their Christianity in their work as a nurse or medical profession. First preference is given to nursing students and second preference is given to pre-med students, however, any student with a learning disability may be considered. They must have a grade point average of 2.70 or higher and demonstrate some evidence of financial need. No separate application is required. Current recipients will be given equal consideration with other candidates. One scholarship of $2,500 was awarded for 2007-2008.

Dr. and Mrs. Bernard Meeuwsen Medical Scholarship Dr. and Mrs. Bernard Meeuwsen of Grand Rapids, Michigan, established this scholarship out of gratitude for what God has done for their family and in appreciation of what Calvin has meant to their family. Dr. Meeuwsen is a graduate of Calvin and a number of the Meeuwsens' children have graduated from Calvin. Candidates are Calvin students entering their sophomore, junior, or senior year who are pursuing a nursing or pre-medical program. They must have a cumulative grade point average of 3.30 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Two scholarships of $1,850 were awarded for 2007-2008.

Menninga Warnshuis Family Scholarship Mr. and Mrs. Roger Warnshuis, Jr. established this scholarship in memory of Henry and Minnie Menninga and Shirley Menninga. Candidates are students entering their first year at Calvin who demonstrate Christian character, personal integrity, motivation, and financial need. They must have a cumulative high school grade point average of 3.00 or higher. No separate application is required. This scholarship is automatically renewable if a cumulative grade point average of 2.50 or higher is maintained. Two scholarships of $1,950 were awarded for 2007-2008.

Mentoring Scholarship Calvin has received a challenge grant to fund a mentoring scholarship that will provide a personal relationship with a mentor as well as a monetary stipend. Candidates are North American or international Calvin students entering their sophomore, junior, or senior year. They must be interested in the personal and professional guidance a mentoring relationship can provide and willing to commit time on a regular basis to build this relationship. Applications are available through the Office of Christian Formation. Scholarships can be renewed for succeeding years through a reapplication process. New scholarships are awarded in the spring in the amount of $1,000 each.

Mephibosheth Scholarship This scholarship was established to provide scholarship assistance to students with physical disabilities. The donor, who had physical disabilities himself, established this fund out of gratitude for all that God did for him and named it the Mephibosheth Scholarship because, as he indicated, "he too dined at the King's table" (cf. II Samuel 9:13). First consideration is given to transfer students or students entering their first year at Calvin who have a physical impairment that is likely to continue indefinitely and who have the academic ability to be admitted as regular students. Preference is given to students who have financial need and to those who have an impairment that makes employment during the academic year less likely. To apply, prospective and transfer students should send a letter of application to the Office of Admissions and

Financial Aid by February 1 describing their qualifications for the scholarship. No separate application is required for returning students. This scholarship is automatically renewable if the student maintains satisfactory academic progress. Eleven scholarships of $2,500 were awarded for 2007-2008.

Michigan Colleges Foundation Each year the Michigan Colleges Foundation awards over 35 scholarships to students attending Calvin. Scholarships range in amounts from $800 to $5,000. Typically, no separate application is required to apply for these scholarships.

Michmerhuizen Family Scholarship This scholarship was established by Phil and Donna Michmerhuizen in honor of Llewellyn and Catherine Michmerhuizen as a tribute to their strong and faithful commitment to Christian education. The Michmerhuizens are grateful to God for the wonderful blessings he has given to their family. They wholeheartedly support the distinctive Christian and excellent academic education Calvin provides to its students. Candidates are students entering their first year at Calvin who are graduates of Holland Christian High School and who are pursuing any field of study, with first preference given to students who are afflicted with multiple sclerosis. They must be able to exhibit strong Christian character as demonstrated by their love for God, for their family, and for their fellow citizens of God's kingdom. They must have a high school grade point average of 3.00 or higher and demonstrate some evidence of financial need. Selection is made by Holland Christian High School. This scholarship is automatically renewable if a Calvin grade point average of 2.50 or higher is maintained. One scholarship of $1,400 was awarded for 2007-2008.

Sue Miller Scholarship This scholarship was established by Rev. John Koole of Strathroy, Ontario, to honor the memory of his aunt, Sue Miller. Rev. Koole is a graduate of Calvin and served his entire professional career as a minister in the Christian Reformed Church serving various churches in Canada. Candidates are students entering their first year of Calvin who are residents of one of the states along the Eastern Seaboard (where Ms. Miller lived), with preference given to students who have been active in church, community, and/or extracurricular activities. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. No separate application is required. This scholarship is not renewable. One scholarship of $1,200 was awarded for 2007-2008.

Jay and Lois Mol Family Scholarship Mr. Jacob "Jay" and Mrs. Lois Mol established this scholarship to help in the training of education students at Calvin who intend to become career teachers in Christian elementary and secondary schools. Candidates are Calvin students entering their junior or senior year who are pursuing a program in education, with first consideration given to those planning to pursue a career in Christian education. A cumulative grade point average of 3.00 is required, but candidates with lower grade point averages may be considered in special circumstances. Preference is given to students who have worked hard, volunteered and been involved in extracurricular activities. There should be some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $2,500 was awarded for 2007-2008.

William and Matilda Monsma Scholarship Mr. William and Mrs. Matilda Monsma spent their lives helping others. They were deeply committed to the work of the church and sacrificed to assist Christian charities and to provide their children with a Christian education. In memory of their parents, the children of Mr. and Mrs. Monsma established this scholarship to assist students who are pursuing opportunities and developing skills needed to assist, counsel, help, and teach others. Candidates are Calvin students entering their sophomore, junior, or senior year who are pursuing a major or program in English, Education, or Communication Arts and Sciences, or planning a career in a helping profession. Preference is given to students from

the south Chicago area. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply, use the Upperclass Named Scholarship Application available through KnightVision in January. This scholarship is automatically renewable for up to three years if the student maintains a cumulative grade point average of 3.00 or higher and if they continue to demonstrate financial need. One scholarship of $2,800 was awarded for 2007-2008.

Arnold and Cynthia Morren Family Scholarship Mr. Arnold and Mrs. Cynthia Morren of Grandville, Michigan, both attended Calvin College, as did their three sons and two daughters-in-law. The Morrens have established this scholarship for students graduating from either Calvin Christian High School or Grandville High School in Grandville, Michigan, Tri-Unity Christian High School in Wyoming, Michigan, or The Potter's House Christian School in Grand Rapids, Michigan. Candidates are students entering their first year at Calvin who have graduated from one of the schools listed above. They must demonstrate Christian character, promise of growth, and participation and leadership in activities, other than athletics, outside the classroom such as church, community, and extracurricular school activities. They must have a high school grade point average of 3.00 or higher and demonstrate some evidence of financial need. Selection of Calvin Christian students and The Potter's House students will be made by those high schools. Selection of students from Grandville High School or Tri-Unity Christian High School will be made by the Office of Admissions and Financial Aid. No separate application is required. This scholarship is automatically renewable for up to three additional years if a cumulative Calvin grade point average of 2.50 or higher is maintained. Five new scholarships of $2,200 were awarded for 2007-2008.

Jay and Kathleen Morren Family Scholarship This scholarship was established by Mr. Jay and Mrs. Kathleen Morren of Grand Rapids, Michigan, to recognize the excellent Christian education their family received at both South Christian High School and Calvin College. As God has blessed them, they wish to have a part in giving students from South Christian the opportunity to attend Calvin. The Morrens see South Christian and Calvin as partners in developing young minds and hearts for Christian service. Candidates are students entering their first year at Calvin who are graduates of South Christian High School. They must demonstrate Christian character, promise of growth and participation and leadership in church, community, and extracurricular school activities other than athletics. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. Selection is made by South Christian High School. This scholarship is automatically renewable for one year only (sophomore year) if a grade point average of 3.00 or higher is maintained. Two scholarship of $2,500 were awarded for 2007-2008.

Mulder/Stuursma Scholarship This scholarship was established to provide financial assistance for graduates of either The Potter's House Christian High School or Central Minnesota Christian High School. Candidates are students entering their first year at Calvin. They must have a grade point average of 2.70 or higher and should demonstrate some evidence of financial need. No separate application is required. This scholarship is automatically renewable for three additional years if a cumulative grade point average 2.70 or higher is maintained. One scholarship of $2,500 was awarded for 2007-2008.

Naomi Scholarship Mr. Donald and Mrs. Carole Mulder of Palatine, Illinois, established this scholarship out of gratitude for the foundation for Christian living which was developed in their entire family while at Calvin. The Mulders are seeking to follow the command given in Isaiah 1:17 which states, "Defend the cause of the fatherless, plead the cause of the widow." The scholarship is named the Naomi Scholarship in reference to the Biblical description of Naomi and her two daughters-in-law in the book of Ruth, all of whom were widows. This scholarship was established for students from single parent families who have lost a parent through death or divorce,

or for a student who is a single parent because of the loss of a spouse. Candidates are transfer students or students entering their first year at Calvin. Students entering their first year must have a high school grade point average of 3.30 or higher and transfer students must have a previous college grade point average of 3.00 or higher. There must be some evidence of financial need. No separate application is required. This scholarship is automatically renewable if the student exhibits principles of Christian character as defined by the college, if they have a cumulative grade point average of 3.00 or higher, and if they continue to demonstrate financial need. Two scholarships of $2,000 were awarded for 2007-2008.

NFP Enterprises Computer Science/Sociology Scholarship NFP Enterprises has provided funds for a scholarship to computer science or sociology students. Candidates are Calvin students entering their junior or senior year who are majoring in Computer Science with a Sociology minor or a degree in Sociology with a Computer Science minor who demonstrate strong Christian commitment. They must have a cumulative grade point average of 2.00 or higher. Financial need is not required. To apply, use the Upper-class Named Scholarship Application available through KnightVision in January. This scholarship is automatically renewable if a cumulative grade point average of 2.00 or higher is maintained. No scholarships were awarded for 2007-2008.

Peter B. Northouse Family Scholarship The children of Mr. Peter B. and Mrs. Jeannette H. Northouse established this scholarship to honor their parents because of their dedication to Calvin and their interest in education. Candidates are Calvin students entering their sophomore, junior, or senior year, with preference given to students who are sincere, industrious, highly motivated, and who are not receiving other scholarships awarded by the college. They must have a cumulative grade point average of 2.70 or higher and demonstrate some evidence of financial need. No separate application required. This scholarship is not renewable. Three scholarships of $3,500 were awarded for 2007-2008.

David M. Ondersma Family Scholarship The David M. Ondersma family of Hudsonville, Michigan, established this scholarship to recognize the value received by the family from their education at Calvin. Candidates are students entering their first year at Calvin who are seniors at Grand Rapids Covenant Christian High School and who are members of the Protestant Reformed denomination. They must exhibit Christian character, promise of growth, and participation and leadership in activities outside the classroom such as church, community, and extra-curricular school activities. They must have a cumulative high school grade point average of 3.00 or higher, with preference given to students with the greatest financial need. Selection is made by Covenant Christian High School. This scholarship is automatically renewable for up to three additional years if a cumulative Calvin grade point average of 3.00 or higher is maintained. Nine scholarships of $2,500 were awarded for 2007-2008.

Mike and Bette Oostendorp Family Scholarship Mr. Mike and Mrs. Bette Oostendorp established this scholarship in thankfulness to God for the influence Calvin has had not only on their own lives, but also on the lives of their daughters. Candidates are Calvin students entering their junior or senior year who are pursuing a degree in education or medicine and who show active participation in volunteer activities. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upperclass Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $2,700 was awarded for 2007-2008.

Robert T. and Charlotte F. Otten Scholarship This scholarship was established by Robert Otten, a professor of Classics, and Charlotte Otten, a professor of English, who enjoyed teaching at Calvin for many years. Candidates are students entering any class level at Calvin who demonstrate a commitment to a Christian liberal arts education. Preference is given to students who plan to pursue a career in college or university

teaching or in a profession in which the liberal arts focus is a formative influence. They must have a grade point average of 3.00 or higher. Financial need is not required. To apply, prospective students should send a letter to the Office of Admissions and Financial Aid describing their qualifications for the scholarship by February 1. To apply or re-apply, returning Calvin students should use the Upper-class Named Scholarship Application through KnightVision in January. They will be given equal consideration with other candidates. One scholarship of $2,100 was awarded for 2007-2008.

Alan and Jan Pauw Family Scholarship Mr. Alan and Mrs. Jan Pauw established this scholarship in appreciation of the education three generations of family members have received at Calvin. They have a special interest in liberal arts education and believe that education of this type available at Calvin is equal to that at the best colleges and universities. Alan Pauw is a lawyer and CPA and has a doctor's degree in history. Jan Pauw is a professor of linguistics and holds a Ph.D. in Indo-European Studies. Candidates are Calvin students entering their junior or senior year who are majoring in history, philosophy, or a foreign language. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $4,000 was awarded for 2007-2008.

Theodore J. Peters Scholarship This scholarship was established by the late Mr. Theodore J. Peters to assist students from a number of West Michigan Christian high schools. Mr. Peters was an alumnus of Calvin and was a prominent businessman in the Grand Rapids area throughout his life. He was founder and owner of the State Distributing Co. from 1930 to 1955 and also organized and was president of the First Kent Reality Co. Mr. Peters knew first hand the value of his Calvin experience and acted to make it possible for many outstanding students to follow in his footsteps. Candidates are students entering their first year at Calvin who are seniors at the following Christian high schools: Calvin Christian, Grand Rapids Christian, Holland Christian, Kalamazoo Christian, Cutlerville South Christian, Hudsonville Unity Christian, and Muskegon Western Michigan Christian. Selection is made by the high school on the basis of the students' academic achievement, Christian character, leadership, and participation in extracurricular activities. No separate application is required. This scholarship is not renewable. Seven scholarships of $9,400 were awarded for 2007-2008.

Johannes and Charlotte Moss Plekker Memorial Faculty Honors Scholarship Mr. John and Mrs. Judith Bielema of Grand Rapids, Michigan, established this scholarship in memory of Judy's parents, Dr. Johannes and Mrs. Charlotte Moss Plekker. The Plekkers were strong supporters of Christian education and excellence in academics. Candidates are Calvin students entering their junior or senior year who are pursuing either the pre-medical program or a program in Chemical Engineering. No separate application is required. This scholarship is automatically renewable if a Calvin grade point average of 3.30 is maintained. Each year one student receiving the Faculty Honors Scholarship will be designated as the Johannes and Charlotte Moss Plekker Memorial Faculty Honors Scholar.

David Post Family Nursing Honors Scholarship This scholarship was established by the Post family in recognition of Margaret Post and her career as a nurse. Candidates are Calvin students entering their junior or senior year who have been accepted into the Calvin Nursing Program. They must have a grade point average of 3.00 or higher. Financial need is not required. No separate application is required. Current recipients will be given equal consideration with other candidates. Each year one student receiving an Honors Scholarship will be designated as a David Post Family Nursing Honors Scholar.

John and Lorene Postma Scholarship As John and Lorene Postma look forward to sending their children to college and look back at their years at Calvin, they are very grateful for the opportunity they had to

attend and graduate from a God centered college. In gratitude to God for all He has given them, John and Lorene would like to assist students with need based scholarships. Candidates are Calvin students entering their junior or senior year who demonstrate Christian character through their lifestyle, as well as participation and leadership in church and missions or community service projects. They must have a grade point average of 2.70 or higher and demonstrate some evidence of financial need. No separate application is required. To reapply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $2,000 was awarded for 2007-2008.

Potvin Scholarship Jon Potvin was a student who came to Calvin in the late 1990's from a public high school in Michigan's Upper Peninsula. Jon was an outstanding athlete in high school. He came to Calvin in search of a strong liberal arts college that taught from a Christian perspective. Jon was raised in the Catholic faith and found few Catholics on campus. He participated in basketball for four years and majored in business. His dream is that Calvin will continue to work to build a diverse student body and offer its distinctively Christian approach to all those who claim Jesus Christ as their Savior. This scholarship is designed to attract other Catholics to Calvin, especially those students that have an entrepreneurial spirit and fascination for the business world. Jon has also agreed to mentor these students in an effort to "give back" a part of what he gained from his Calvin experience. Candidates are Calvin students entering their junior or senior year who are majoring in Business and who are members of the Catholic Church. They should demonstrate Christian character, promise of growth, and participation and leadership in activities outside the classroom such as church, community, and extra-curricular school activities. They must have a grade point average of 2.50 or higher and demonstrate some evidence of financial need. No separate application is required. This scholarship is automatically renewable if a cumulative grade point average of 2.50 or higher is maintained. One scholarship of $750 was awarded for 2007-2008.

Merle J. and Arnola J. Prins Family Presidential Scholarship Merle and Arnola Prins and their family have had a longstanding commitment to Christian education at all levels and have witnessed its tremendous impact on their lives. They have established this scholarship in deep gratitude to God for his faithfulness across the generations. They recognize that Calvin has maintained its integrity in an everchanging world and they hope that this scholarship will help ensure that young people can continue to take advantage of the distinctively Christian learning opportunities offered at Calvin. Candidates are students entering their first year at Calvin, with preference given to students from Holland Christian High School. No separate application is required. This scholarship is automatically renewable if a grade point average of 3.50 or higher is maintained. Each year one prospective Calvin student receiving a Presidential Scholarship will be designated as a Merle J. and Arnola J. Prins Family Presidential Scholar.

Race Relations Multiracial Student Scholarship The Christian Reformed Church of North America (CRCNA) has authorized that scholarships of up to $1,000 per year be provided for financially needy students of North American ethnic minority students who are related to the Christian Reformed Church. Selection criteria include the student's academic record, financial need, and interest in serving God's Kingdom. Application available from the Office of Admissions and Financial Aid in early spring.

Rainbow Foundation Scholarship Annual awards are given by Thomas and Marjorie Hoogeboom through the Rainbow Foundation of Kalamazoo, Michigan, to students entering their first year at Calvin, with preference given to graduates of Kalamazoo Christian High School. They must have a cumulative high school grade point average of 3.50 or higher. To be considered for renewal, students must have a cumulative grade point average of 3.00 or higher. Scholarships range from $750 - $2,500.

Donald P. Rhoads Scholarship for International Students This scholarship was established by Joel and Janis Carpenter to support Calvin in its mission to provide

excellent and affordable Christian higher education by strengthening its financial aid program and also to support the college's efforts to attract talented and devoted students from the global south and east. This scholarship was also established to honor the memory of Donald P. Rhoads, Janis' brother, who loved God, served the kingdom of Jesus Christ, and loved learning. Candidates are students entering their first year at Calvin who are residents of or recent immigrants (to Europe or North America) from the nations of Africa, Asia, or Latin America. There should be some evidence of financial need. No separate application is required. This scholarship is automatically renewable if the student maintains a cumulative grade point average of 3.20 or higher. One scholarship of $1,500 was awarded for 2007-2008.

Milton C. Roskam Memorial Scholarship This scholarship was established by Dirk Roskam in memory of his father, Milton C. Roskam, who passed away during Dirk's freshman year at Calvin. Milton, who attended Calvin, was a firm believer of higher learning and the opportunity for all, regardless of financial well being, to attain a college degree. One of Milt's finest memories of Calvin was his involvement with the music department as a member of the Capella choir, an enjoyment of singing that was carried on from Grand Rapids Christian High School. Although never a music major, his love and passion for music carried on through his entire life singing in many choirs and playing the organ within his residence. Candidates are students entering any class level at Calvin who are pursuing any academic program or major, but who demonstrate a love and passion for music. First consideration is given to employees or children of employees from Maksor, Inc. or its associated entities. Second consideration is given to students from Grand Rapids Christian High School. They must have a grade point average of 2.00 or higher and demonstrate some evidence of financial need. To apply, prospective students should submit a letter to the Office of Admissions and Financial Aid by February 1 documenting his or her relationship with Maksor, Inc. or its associated entities. To apply or re-apply, returning students must use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $1,500 was awarded for 2007-2008.

Loren and Dian Rupke Economics and Business Scholarship This scholarship was established by Loren and Dian Rupke to provide an education for students adhering to Christian principles that can be used in the everyday life of the business world. Candidates are Calvin students entering their junior or senior year who are majoring in Business or Economics. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. No separate application is required. Current recipients will be given equal consideration with other candidates. Two scholarships of $1,750 were awarded for 2007-2008.

Russian Student Scholarship This scholarship, established by Mr. Milt and Mrs. Carol Kuyers and Mr. Dennis and Mrs. Sandy Kuester, grows out of their experiences in and involvement with higher education in Russia. Both the Kuyers and the Kuesters have spent time in Russia working with institutions there and now wish to provide the opportunity for a Russian student to study at Calvin. The student must come from the Russian-American Christian University where both Mr. Kuyers and Mr. Kuester have positions on the Advisory Board. Candidates are students entering their junior or senior year. Consideration may be given to extra curricular involvement, social and cultural adaptability, and potential for leadership. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. No separate application required. This scholarship is not renewable.

Bruce and Jeralyn Ryskamp Scholarship Mr. Bruce and Mrs. Jeralyn Ryskamp established this scholarship out of gratitude for the excellent education Calvin provided to them and to their children. Candidates are Calvin students entering their junior or senior year who demonstrate qualities of strong character, leadership and concern for others. Preference is given to

students pursuing careers and developing skills needed to assist, counsel, help and/or teach children. They must have a cumulative grade point average of 2.50 or higher and demonstrate some evidence of financial need. To apply and re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Two scholarships of $2,100 were awarded for 2007-2008.

Paul and Thelma Schutt Family Medical Scholarship This scholarship was established by Dr. Paul and Mrs. Thelma Schutt of Grand Rapids, Michigan, in appreciation for the excellent education that they and their three children received at Calvin. In gratitude for the successful careers in medicine and nursing, the Schutts have established this scholarship for students pursuing a Pre-medical or Nursing program. Candidates are Calvin students entering their junior or senior year, with preference given to those who demonstrate a strong Christian character and a caring personality. They must have a cumulative Calvin grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $2,400 was awarded for 2007-2008.

Richard and Jill Siegers Family Scholarship The Siegers love and value Christian education and they are strong supporters of Calvin. A successful businessman, Mr. Siegers realizes that there are many gifted students who have learning challenges, and he wants to encourage these students to succeed. He appreciates the tremendous support system Calvin offers to young people who come to college with different learning styles, and he values the assistance such a system can provide. This scholarship was established to encourage students with entrepreneurial interests. He is open to mentoring the scholarship recipient as the opportunities arise. Candidates are students entering their first year, sophomore or junior year at Calvin who are majoring in business, with preference given to students with a defined learning disability. A high grade point average is not required since there are many other qualities and abilities that position young people for successful roles in business and in life, but a minimum grade point average of 2.00 is preferred. There should be some evidence of financial need. No separate application is required. This scholarship is automatically renewable for one year if the student continues to meet the stated criteria. One scholarship of $2,500 was awarded for 2007-2008.

Dena M. Sievert Scholarship This scholarship was established by gifts from Mr. Frederick and Mrs. Susan Sievert in honor of their daughter, Dena, and her involvement in Christian volunteer work while pursuing her Bachelor's Degree. Candidates are minority students entering their first year at Calvin who have a strong demonstrated record of Christian or community volunteer work. There should be some evidence of financial need. No separate application is required. This scholarship is not renewable. One scholarship of $4,000 was awarded for 2007-2008.

Carol F. Smith Memorial Scholarship This scholarship was established to honor Carol Smith and her forty years of service at Calvin. During her tenure, Carol served as the Executive Assistant to three of Calvin's presidents—Drs. Spoelhof, Diekema and Byker. She possessed a strong hunger for learning even though she never had the occasion to attend college. Carol loved the academic environment and through this scholarship desires to give a student demonstrating financial need the opportunity to experience a Christ-centered Calvin education. Candidates are students entering their first year at Calvin. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. No separate application is required. This scholarship is automatically renewable if the student maintains a 3.00 grade point average and continues to demonstrate financial need. One scholarship of $5,500 was awarded for 2007-2008.

James E. Smith Presidential Scholarship This scholarship was established in memory of James E. Smith, a graduate of Calvin and an active alumnus. He was president of the Calvin Oratorio Society at the time he passed away unexpectedly in October 1991. This scholarship is funded by contributions from Gordon Food Service where Mr. Smith was a long-term employee as Director of Operations. No separate application is required. This scholarship is automatically renewable if a Calvin grade point average of 3.50 or higher is maintained. Each year four students receiving Presidential Scholarships are selected as James E. Smith Presidential Scholars.

Spalink Memorial Missions Scholarship To encourage superior students to enter missions, the Spalink family established this scholarship in memory of John Spalink, Jr., who was killed in the Philippine Islands during World War II. Candidates are Calvin students entering their sophomore, junior, or senior year who show a definite interest in a missionary vocation, with preference given to members of the Christian Reformed Church who aspire to a career with that church's missions. Selection is based primarily on academic achievement although other factors such as Christian character, motivation, promise of growth and financial need will be taken into consideration. To apply or reapply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $1,300 was awarded in 2007-2008.

John L. and Carolyn J. Steen Education Scholarship John and Carolyn Steen are deeply committed to a Christ-centered education at all levels. The family have a long history of involvement with Christian education and with Calvin. John's father (John Steen Sr.) and Carolyn's parents (Martin and Alice Bielema) graduated from Calvin in 1925. Carolyn also attended Calvin. The Steen's three children graduated from Eastern Christian High School in Haledon, New Jersey, and Calvin. John spent many years on the Board of Directors and the education committee of the Eastern Christian Schools. Candidates are students entering their first year at Calvin who are graduates of Eastern Christian (attending for at least grades 7-12), during which they were active members of the Christian Reformed Church. They must be committed to enrolling in the teacher education program and be committed to teaching in a CSI school if at all possible, with strong encouragement to consider Eastern Christian if there are openings available. They must demonstrate that they have been involved in extracurricular activities. They must also have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. Apply through Eastern Christian High School. This scholarship is not renewable. One scholarship of $2,400 was awarded for 2007-2008.

Wilma Steketee-Bean Scholarship Mrs. Wilma Steketee-Bean of Ann Arbor, Michigan, remembered Calvin among the charitable beneficiaries of her estate and created this scholarship. Mrs. Steketee-Bean expressed her desire but lack of opportunity to attend college when she was young. She established this scholarship to help financially needy young men and women to have the opportunity she lacked to benefit from a college education. Candidates are students entering their first year at Calvin who demonstrate financial need. No separate application is required. This scholarship is automatically renewable if the student maintains a cumulative grade point average of 2.50 or higher and continues to demonstrate high financial need. Five scholarships of $2,000 were awarded in 2007-2008.

Edward C. and Hazel L. Stephenson Foundation Scholarship Mr. Edward and Mrs. Hazel Stephenson were strong supporters of higher education and believed in providing scholarships to give young people the opportunity to attend college. The Edward C. and Hazel L. Stephenson Foundation of Dearborn, Michigan, was established to carry on their wish to assist deserving students. Candidates are students entering any class level at Calvin who have a grade point average of 3.20 or higher. No separate application required. Students may be considered for renewal if a grade point average of 2.50 or higher is main-

tained. Fourteen scholarships of $2,500 were awarded for 2007-2008.

Jennie and Sylvia Stielstra Scholarship Jennie and Sylvia Stielstra lived to glorify God through their careers in elementary general education, elementary art education, on the mission field, in their church, and in their community. Candidates are students entering any class level at Calvin who are intending to serve in either elementary education or in missions, with preference given to children of missionaries. They must demonstrate Christian character and promise of growth through participation and leadership in activities outside the classroom such as community, church, and extra-curricular school activities. Prospective students must have a high school grade point average of 3.00 or higher and returning students must have a Calvin grade point average of 2.70 or higher. There should be some evidence of financial need. To apply, prospective students should send a letter describing their qualifications to the Office of Admissions and Financial Aid by February 1. Returning students must use the Upper-class Named Scholarship Application available through Knight Vision in January. To be considered for renewal, current recipients must maintain a grade point average of 2.70 or higher and file a new application each year, but they will be given preference over other candidates. One scholarship of $2,600 was awarded for 2007-2008.

Sub-Saharan African Student Scholarship This scholarship was established by Al and Kay Bierling who were educators in Sub-Saharan Africa for over thirty years. It is their hope that recipients of this scholarship will return to Africa after attending Calvin and use their education to help improve the lives of Africans. Candidates are students entering any class level at Calvin who are from a Sub-Saharan African country and who have attended a Sub-Saharan secondary school. Preference is given to students who have refugee status or have been refugees and who demonstrate an interest in running or fitness. It is suggested that the recipient keep a log of their fitness activities. They must have a grade point average of 2.70 or higher and demonstrate some evidence of financial need. To apply, prospective students must send a brief letter of application to the Office of Admissions and Financial Aid by February 1 describing their qualifications. To apply or re-apply, returning students must complete the Upper-Class Named Scholarship Application available in January. Current recipients will be given equal consideration with other candidates. Preference is given to students who submit documentation (i.e. log book) regarding the previous year's fitness activities. A suggested goal would be running at least twenty miles per week. One scholarship of $3,500 was awarded for 2007-2008.

Robert and Timothy Sullivan Scholarship Each year Calvin receives funds from the Sullivan Scholarship Fund Trust to be used to assist students from the greater Grand Rapids area. Candidates are students entering their first year at Calvin who are from a high school in the greater Grand Rapids area. Selection is based on academic achievement, character, participation in extracurricular activities, and financial need. No separate application is required. This scholarship is not renewable. One scholarship of $1,000 was awarded for 2007-2008.

Summer Ministries Grant To encourage participation in summer Christian service activities, a grant is available to students enrolled at Calvin the year after the summer experience. Candidates are Calvin students participating in summer mission work, six weeks or more, under the sponsorship of a Christian church or agency where the emphasis is on Christian service and cross-cultural experience and where the students do not receive compensation from the sponsoring church/agency other than the cost of travel and living expenses. There should be some evidence of financial need. Applications are available from the Service Learning Center each spring. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Grants of up to $1,200 were available in 2007-2008.

Arvin and Pearl Tap Family Scholarship Mr. Arvin and Mrs. Pearl Tap have been lifetime supporters of Christian education

at all levels. They have seen the blessings for themselves, their children, and grandchildren. They have a strong desire to share these blessings with others in the community. Since they have been supporters of The Potter's House Christian School ministry, it is their desire to extend this Christian academic experience to students of The Potter's House. Candidates are students entering their first year at Calvin, with preference given to ethnic minorities. They must have attended The Potter's House Christian School, with preference given to graduates. They must have a high school grade point average of 2.50 or higher and demonstrate some evidence of financial need. Selection is made by The Potter's House Christian School. This scholarship is automatically renewable for three additional years if a cumulative grade point average of 2.50 or higher is maintained. Four scholarships of $2,500 were awarded for 2007-2008.

Wilma Zondervan Teggelaar Family Scholarship The family of Mrs. Wilma Zondervan Teggelaar of Grand Rapids, Michigan, established this scholarship to honor Mrs. Teggelaar's lifelong generous and dedicated support of Christian education. Mrs. Teggelaar's hope is that students who attend Calvin will equip themselves to serve Christ in all spheres of life. Her family, recipients of her commitment, join her in establishing this scholarship for students who would not otherwise attend Calvin because of the cost. Candidates are students entering their first year at Calvin who don't necessarily have the strongest academic record in high school but who nevertheless demonstrate the potential to be successful at college. Preference is given to students who have been actively involved in service-related and other volunteer activities in their high school, church, or community during their high school years. They must demonstrate some evidence of financial need. No separate application is required. This scholarship is automatically renewable for the sophomore year if the student demonstrates evidence of scholastic diligence, is in good academic standing, and continues to qualify based on financial need. Four scholarships of $3,000 were awarded for 2007-2008.

John H. te Velde Memorial Scholarship John H. te Velde was a Southern Californian dairyman who supported Christian education during his life. This scholarship was established in his honor by the Artevel Foundation, of which John was a devoted member, and is maintained by the te Velde family. This scholarship is for deserving students who require financial assistance from the Ontario and Valley Christian High Schools in Southern California. It is targeted toward students with potential for success in college studies and promises for growth. Candidates are students from Valley Christian High School or Ontario Christian High School in Southern California who are entering their first year at Calvin. They must have a high school grade point average of 2.50 or higher and demonstrate some evidence of financial need. No separate application is required. This scholarship is automatically renewable for the sophomore year if the student maintains satisfactory academic progress. One scholarship of $2,500 was awarded for 2007-2008.

Kenneth and Phyllis Timmer Family Scholarship Mr. Ken and Mrs. Phyllis Timmer established this scholarship to provide future students the ability to attend Calvin and receive the significant benefits of a Calvin Christ-based education that they and their children received. Candidates are Calvin students entering their junior year who are pursuing a degree in Education, Engineering, Business, Communications or Nursing and who are residents of Michigan. They must have a grade point average of 2.50 or higher and demonstrate some evidence of financial need. No separate application is required. This scholarship is automatically renewable if the student continues to make satisfactory academic progress toward a degree in their discipline and maintains a grade point average of 2.50 or higher. One scholarship of $3,000 was awarded for 2007-2008.

Tong Family Scholarship Dr. Joseph Tong, an alumnus of Calvin from El Monte, California, established this scholarship to assist international students at Calvin. Candidates are international students entering any class level at Calvin, with preference

given to students from Asia, particularly Indonesia. Prospective students must demonstrate the academic potential to be successful at Calvin. They must demonstrate some evidence of financial need. No separate application is required. This scholarship is automatically renewable if a grade point average of 2.50 or higher is maintained. Three scholarships of $1,200 were awarded for 2007-2008.

David O. Triezenberg Memorial Scholarship This scholarship was established by the Triezenberg family in memory of David O. Triezenberg, former teacher, former Calvin employee, and friend to students. This scholarship was established to encourage students from Illiana Christian High School in Lansing, Illinois, or Grand Rapids Christian High School in Grand Rapids, Michigan, to attend Calvin. Candidates are students entering their first year at Calvin who have graduated from one of the high schools listed above. Preference is given to those preparing for a career in Christian service, such as teaching, social work, or work in the not-for-profit sector. They must have a high school grade point average of 3.00 or higher and demonstrate some evidence of financial need. Selection will alternate between the two high schools. No separate application is required. This scholarship is not renewable. One scholarship of $1,700 was awarded for 2007-2008.

Benjamin H. Van Andel Scholarship Benjamin Van Andel graduated from Calvin in 1951 with a degree in Business Administration. After spending three years in the business world, Mr. Van Andel decided to pursue a career in education and entered the field of teaching in 1955. After receiving his Masters Degree in Special Education, Mr. Van Andel spent the next thirty-six years of his life teaching in the Belmont, Rockford, Comstock Park, Godfrey-Lee and Wyoming school systems, retiring in 1991. In gratitude for his Calvin education, Mr. Van Andel established this scholarship to give other young men and women the same opportunity of an excellent, Christ-centered education that he experienced. Candidates are students entering any class level at Calvin who demonstrate financial need. No separate application is required. Current recipients will be given equal consideration with other candidates. One scholarship of $2,500 was awarded for 2007-2008.

Jacob and Rena Van Dellen Scholarship This scholarship was established by Mr. Theodore Van Dellen in honor of his parents, Jacob and Rena Van Dellen. Mr. and Mrs. Van Dellen moved to Michigan so that their son could pursue his education at Calvin. Candidates are Calvin students entering their junior or senior year who are pursuing a pre-law program or a degree in political science. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Two scholarships of $1,500 were awarded for 2007-2008.

John and Marian Vanden Berg Scholarship John and Marian (Zylstra) Vanden Berg are both graduates of Calvin, as are their four children, and many of their grandchildren. John served Calvin faithfully for thirty-five years, first as Professor of Economics and later as Vice President for Academic Administration. They are ardent and long-time supporters of Christian education at all levels and have established this scholarship to assist students who otherwise might not be able to attend Calvin. Candidates are students entering any class level at Calvin, with preference given to students majoring or intending to major in Economics or Education. They must demonstrate Christian character and promise of growth through participation and leadership outside the classroom such as community, church and extracurricular school activities. They must have a grade point average of 2.50 or higher and demonstrate some evidence of financial need. No separate application is required. This scholarship is automatically renewable if the student maintains satisfactory academic progress. One scholarship of $2,400 was awarded for 2007-2008.

Cornelia and Marvin Vanden Bosch Scholarship Cornelia (Scholten) Vanden Bosch established this scholarship in 1981, shortly after the death of her husband, Dr. Mar-

vin P. Vanden Bosch (Calvin, 1933), and in response to a grandson's accidental injury and subsequent disability. It was Mrs. Vanden Bosch's desire that disabled students be helped to obtain a Calvin education in spite of their disabilities. Although Mrs. Vanden Bosch is not college-educated, she is an avid supporter of Christian education, and particularly of Calvin, as was her late husband. Candidates are students entering any class level at Calvin who are physically disabled and whose disability is likely to continue indefinitely. Preference is given to students who have substantial functional limitations. They must have a cumulative grade point average of 2.50 or higher and demonstrate some evidence of financial need. To apply, students must send a letter describing their qualifications to the Office of Admissions and Financial Aid by February 1. Current recipients will automatically be considered for renewal if they continue to make satisfactory academic progress. They will be given preference over new applications. Three scholarships of $2,200 were awarded for 2007-2008.

William and Anna Vanden Bosch Scholarship Mr. and Mrs. William Vanden Bosch are grateful for the Lord's blessings and wish to share those blessings with others. It is their desire to support students seeking to enter parish ministry, particularly pastoral leaders with a heart for missions. Candidates are Calvin students entering their junior or senior year who are planning a career in missions or some type of parish or pastoral ministry, with preference given to candidates who plan to pursue ministry in the Christian Reformed Church. Special consideration is given to ethnic minority candidates. They must have a record of being active in ministry in their local congregation or in other Christian ministry. They must have a cumulative grade point average of 2.70 or higher and demonstrate evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Three scholarships of $2,500 were awarded for 2007-2008.

Arnold and Janice VanderBok Family Scholarship Mr. Arnold and Mrs. Janice VanderBok established this scholarship out of gratitude to God for the abundance of blessings He has provided to them and their family. They are also thankful to Calvin for the quality Christian education it provides and that they and their daughters and sons-in-law have been able to receive. After many years of commitment to Mexican mission projects, it is also their desire to help a first or second generation Hispanic student. Candidates are students entering any class level at Calvin who are majoring or planning to major in a helping profession such as a social worker, teacher, pastor, nurse, or doctor. They must be able to speak Spanish fluently. First preference is given to North American ethnic minority students, with special preference given to Hispanic students. There must be some evidence of financial need. To apply or reapply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $2,800 was awarded for 2007-2008.

Edward D. and Jennie VanderBrug Memorial Scholarship This scholarship is dedicated in the memory of Edward and Jennie (Hoekstra) VanderBrug. Both Edward and Jennie were immigrants to the United States in the early 1900's. They met in the 1920's when Edward came to Detroit seeking work in the automobile industry. Although it was difficult at times to obtain a significant amount of formal education, the VanderBrugs were dedicated supporters of Christian schools. All four of their children attended Christian schools, including Calvin. (Each of the children's spouses attended Calvin also, as have 21 of their grandchildren and their spouses.) Edward and Jennie were intent on serving God's purposes in their generation. Consistent with their belief that everything belongs to the Lord, this scholarship is meant to assist those who, sharing this belief, want their college education to assist them in living their whole life to the glory of God. Candidates are non-Anglo students entering their first year at Calvin who are committed Christians, with preference given to Af-

rican Americans. They must have the academic potential and promise to be successful at Calvin and demonstrate evidence of financial need. No separate application is required. This scholarship is automatically renewable for up to three years if the student maintains a cumulative grade point average of 2.60 or higher. Five scholarships of $2,700 were awarded for 2007-2008.

John S. Vander Heide III Memorial Scholarship Mr. and Mrs. John S. Vander Heide, Jr. established this scholarship in loving memory of their son, John III, who passed away in 1989 at the age of twenty-eight. During his lifetime, John III was actively involved in the work of his church and was greatly appreciative of the leadership of his pastors. Mr. and Mrs. Vander Heide, Jr., both alumni of Calvin, established this scholarship in memory of their son to honor the respect he held for his pastors by assisting students who plan to enter the ministry. Candidates are Calvin students entering their senior year who are pursuing a pre-seminary program and planning to seek ordination through Calvin Theological Seminary. Also considered is the students' potential for leadership in the ministry of the Christian Reformed Church as demonstrated through theological insight and gifts of pastoral sensitivity. They must have a cumulative grade point average of 2.67 or higher. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Two scholarships of $1,800 were awarded for 2007-2008.

Joseph and Ralph Gelmer Vander Laan Memorial Scholarship The Vander Laan family established this scholarship in memory of brothers Joseph and Ralph Gelmer Vander Laan. Candidates are Calvin students entering their junior or senior year who are pursuing a program in the health professions (pre-medical, pre-dental, medical technology, nursing, etc). There should be some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Seven scholarships of $2,000 were awarded for 2007-2008. One scholarship is awarded to a student who meets the above criteria and who plans to pursue medical missions.

Dr. Corwin G. and Ina June VanderVeer Family Medical Scholarship Dr. Corwin G. and Mrs. Ina June VanderVeer and their children established this scholarship in appreciation for the good counsel and caring mentoring they received while at Calvin. The VanderVeer family has been very active in medicine and it is their desire to help support a pre-med or nursing student. Candidates are students entering their junior or senior year who are pursuing a degree in pre-medicine or nursing and who demonstrate a strong Christian character and a caring personality. They must have a grade point average of 3.30 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $2,700 was awarded for 2007-2008.

Gerald and Jessica Vander Wall Scholarship Dr. Gerald and Mrs. Jessica Vander Wall of Grand Rapids, Michigan, established this scholarship because of their desire to help deserving students obtain a Christian college education. Dr. and Mrs. Vander Wall are both alumni of Calvin and are loyal and enthusiastic supporters of Calvin. Dr. Vander Wall is a retired Endodontist. Candidates are students entering their first year at Calvin. They must have a high school grade point average of 2.50 or higher and demonstrate some evidence of financial need. No separate application is required. This scholarship is not renewable. Two scholarships of $1,800 were awarded for 2007-2008.

Van Dragt - Vander Wal Scholarship This scholarship was established as a tribute and a thank offering to God and is dedicated to Gordon and Angie Van Dragt, Wilma Van Dragt, and Marv and Ruth Vander Wal by their children, grandchildren, nieces, and nephews. It is the hope and prayer of the Van Dragt and Vander Wal families that this scholarship will assist students in pursuit of a Christ-centered college education. They

also hope that the lessons learned at Calvin will help each student not only in a career but also through lifetime service to God. Candidates are students entering any class level at Calvin who are pursuing any field of study, with preference given to non-traditional students at least thirty years of age or older. Past academic performance may be considered. There must be some evidence of financial need. To apply, prospective students should send a letter detailing their qualifications to the Office of Admissions and Financial Aid by February 1. To apply or re-apply, returning students must use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $3,000 was for 2007-2008.

William and Janice (Roosma) Van Dyke Scholarship Janice (Roosma) Van Dyke, a graduate of Lynden Christian High School in Lynden, Washington, established this scholarship in memory of her late husband, William, who passed away of cancer in 1993 at the age of forty-five. Mrs. Van Dyke believes that the Lord led her to attend Calvin and she is grateful for the blessings she received while at Calvin and in subsequent years. This scholarship is intended to contribute to the enrollment of other students who, like herself, need some encouragement and resources. Candidates are students entering any class level at Calvin who are graduates of Lynden Christian High School. They must have a high school grade point average of 2.70 or higher and demonstrate some evidence of financial need. Selection is made by the Lynden Christian High School. This scholarship is automatically renewable for up to three additional years if a cumulative Calvin grade point average of 2.50 or higher is maintained. Four scholarship of $1,000 were awarded for 2007-2008.

William H. Van Dyke Memorial Scholarship This scholarship was established by Mrs. Janice Van Dyke of Oak Brook, Illinois, in memory of her husband, William, who passed away from cancer in November of 1993. Mr. and Mrs. Van Dyke met as students at Calvin in the fall of 1966 and were married during their senior year. They developed very close friendships during their four years at Calvin, relationships that lasted a lifetime. Bill was first diagnosed with cancer in 1978, and had it return in 1990. As he struggled with the disease, the events that had impacted his earlier life became fond memories. Calvin was one such influence. His love for the college and the leadership there led him to give and serve the institution where and whenever possible. His love for God, students in general, Timothy Christian Schools, and giving were all wrapped up in the meaning and memory of Bill's life. Sharing the privilege of giving to other students the opportunity to attend a college with the Christian academic environment that Calvin is well-known for would be Bill's greatest joy. This scholarship is dedicated to his memory and all that held the most meaning to him. Candidates are students entering their first year at Calvin who are seniors or graduates of Timothy Christian High School in Elmhurst, Illinois. They must have a high school grade point average of 2.70 or higher and demonstrate some evidence of financial need. Selection is made by Timothy Christian High School. This scholarship is automatically renewable for up to three years if the student maintains a cumulative Calvin grade point average of 2.50 or higher. Three scholarships of $2,500 were awarded in 2007-2008.

Herb Van Iddekinge Memorial Scholarship This scholarship was established by the family of Herb Van Iddekinge. Herb loved Calvin and all it stands for. He graduated from a public high school, attended Calvin and embraced the Christian atmosphere at Calvin. He promoted and supported Calvin whenever possible and for a short time provided assistance to Kevin Vande Streek, head coach of the men's basketball team at Calvin. Herb loved attending sporting events, especially basketball. Candidates are Calvin students entering their senior year who are majoring in Psychology, History, or Physical Education, with preference given to graduates of Holland Christian High School in Holland, Michigan. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. No separate application required. This scholarship is not renewable. One scholarship of $1,500 was awarded in 2007-2008.

Robert and Joan VanSpronsen Scholarship Mr. Robert and Mrs. Joan Hoogewind VanSpronsen established this scholarship in memory of their son, Kenneth, a 1989 graduate of Calvin, who was killed in a car accident on October 21, 1992. Candidates are students entering their first year at Calvin who demonstrate Christian character and leadership in church and school activities, other than athletics. First preference is given to graduates of Ripon Christian High School in Ripon, California, with second preference given to graduates from Grand Rapids Christian High School in Grand Rapids, Michigan. They must have a high school grade point average of 2.70 or higher and demonstrate some evidence of financial need. No separate application is required. This scholarship is automatically renewable if a grade point average of 2.70 or higher is maintained. One scholarship of $2,600 was awarded for 2007-2008.

Cornelius and Leona Van Valkenburg Scholarship Mr. Cornelius and Mrs. Leona Van Valkenburg were charter members of Riverside Christian Reformed Church in Grand Rapids, Michigan. Cornelius attended Calvin and later was awarded his law degree from the University of Michigan. He has also served as a board member of the Calvin College Board of Trustees. Candidates are students entering any class level at Calvin who have attended Riverside Christian Reformed Church and who demonstrate fine Christian character. They must have a grade point average of 2.50 or higher and demonstrate some evidence of financial need. Applications are available from Riverside Christian Reformed Church. This scholarship is automatically renewable if the student remains a full-time student and has a prior semester grade point average of 2.50 or higher. One scholarship of $1,500 was awarded for 2007-2008.

Vermeer Scholarships The Vermeer Charitable Foundation of Pella, Iowa, established two scholarships at Calvin. Each year two students receiving Presidential Scholarships are designated as Vermeer Presidential Scholars, with funds for these scholarships provided by an endowment established by a gift from the Vermeer Foundation. Vermeer Presidential Scholarships are automatically renewable if a Calvin grade point average 3.50 or higher is maintained. A second scholarship, the Vermeer Charitable Foundation Scholarship, is awarded each year to a senior at a high school in the greater Pella community who is planning to attend Calvin the following year. Also considered is Christian character, promise of growth, and participation and leadership in activities outside the classroom such as church, community, and extra-curricular school activities. They must have a high school grade point average of 3.00 or higher. Selection is made by Pella Christian High School. The Vermeer Charitable Foundation Scholarship is automatically renewable for up to three years if a Calvin grade point average of 3.00 or higher is maintained. Seven scholarships of $2,500 were awarded for 2007-2008.

Victor VerMeulen Medical Scholarship Dr. Victor and Mrs. Mildred VerMeulen of Grand Rapids, Michigan, established this scholarship in honor of their son, a Calvin alumnus. Dr. VerMeulen practiced as an orthodontist in Grand Rapids for many years and Mrs. VerMeulen is an alumna of Calvin. Candidates are Calvin students entering their junior or senior year who are pursuing a nursing or pre-med program. Also considered is the student's potential for Christian service in medicine. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Typically ten scholarships of $2,000 are awarded to students entering their junior or senior year; five in the nursing program and five in the pre-medical program.

Voetberg Scholarship Mr. and Mrs. Robert Voetberg of Grand Rapids, Michigan, established this scholarship in honor of their son, Mike, a physically disabled student who attended Calvin from 1987 to 1991. The Voetbergs' desire is to recognize other promising students who are physically disabled and assist them in meeting their educational expenses. Candidates are

students entering any class level at Calvin who are permanently physically disabled and who demonstrate the ability to do college-level work. There must be some evidence of financial need. To apply, prospective and transfer students must send a letter describing their qualifications to the Office of Admissions and Financial Aid by February 1. No separate application is required for returning students. Current recipients will be given equal consideration with other candidates Two scholarships of $1,500 were awarded for 2007-2008.

Louis Vos Memorial Honors Scholarship Dr. Louis Vos taught in the Calvin Religion Department for thirty years before his untimely death in 1995. He is remembered as a dedicated teacher, a congenial colleague, an exceptionally devoted family man, a person of boundless optimism, and a Christian whose faith never wavered even in the crucible of serious illness. He especially distinguished himself as an excellent classroom teacher and was widely loved and respected by the thousands of students who learned from him. He taught with passion, for he was a man with deep and abiding convictions. His office was always open to students, and he served them with sound academic advice and wise personal counsel. Candidates are students entering their first year at Calvin or returning students entering their junior or senior year who are pursuing a pre-seminary program with a career goal of serving a church or teaching Bible or Religion and Theology. A major or minor in Religion and Theology is not required to be considered for this scholarship. They must have a grade point average of 3.20 or higher. No separate application is required. This scholarship is automatically renewable if a cumulative grade point average of 3.20 or higher is maintained. Each year two students receiving an Honors Scholarship will be designated as a Louis Vos Memorial Honors Scholar.

Vrieland Family Business and Music Honors Scholarship Mr. Curtis and Mrs. Nancy Vrieland established this scholarship for those seeking a business degree who also show a proficiency and interest in music (instrumental or voice). This scholarship is a reflection of Mr. and Mrs. Vrieland's contribution and involvement with the business world for over fifty years, while remaining involved praising God through music. Music adds much to the beauty of worshipping our Lord in our churches; in addition, persons of strong business background often make substantial contributions as deacons, elders and school board members. Candidates are students entering their first year at Calvin who plan to pursue a Business or Economics major. They must be seeking a career in some aspect of business and they must be involved with some aspect of music while at Calvin. Financial need is not required. No separate application is required. This scholarship is automatically renewable if a grade point average of 3.20 or higher is maintained. Each year a student receiving the Honors Scholarship will be designated as a Vrieland Family Business and Music Honors Scholar.

Wallace (Dutch) and Olive Waalkes Memorial Scholarship Calvin has a special place in the hearts of Dutch and Olive Waalkes. Dutch was a 1935 graduate and although Olive was not an alum, both of them appreciated the tremendous education their son Tom received at Calvin. After graduation, Dutch went on to law school, and became a very successful attorney and judge in the Grand Rapids area. He and Olive always looked forward to hearing from those Calvin students who went on to study law. Candidates are Calvin students entering their junior or senior year, with preference given to seniors. They must be pursuing a pre-law program and planning to attend law school after graduating from Calvin. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $3,300 was awarded for 2007-2008.

Charles and Anna Wabeke Memorial Scholarship This scholarship was established by Mrs. Ruth Heerspink, daughter of Mr. Charles and Mrs. Anna Wabeke. Candidates are Calvin students entering their junior or senior year who are plan-

ning to enter full-time Kingdom service, with preference given to those interested in missions. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Three scholarships of $2,150 were awarded for 2007-2008.

Theodore C. Wagenaar Scholarship This scholarship supports student travel to Calvin's programs in the southwest United States. Dr. Wagenaar desires to strengthen students' interest in studying the cultures of the Southwest. In that light, preference will be given to students pursuing a social science or an education degree. This scholarship is intended to assist with expenses associated with an interim or semester spent off campus in the southwest United States. Candidates are Calvin students planning to participate in an off campus interim or off campus semester in the Southwest United States and who are pursuing a degree in social sciences or education, in that order. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. No separate application is required. Current recipients will be given equal consideration with other candidates. One scholarship of $400 was awarded for 2007-2008.

Rev. Alfred and Mrs. Henrietta Walcott Memorial Scholarship This scholarship was established by the family of Rev. Alfred and Mrs. Henrietta Walcott. Candidates are Calvin students entering their junior or senior year who are entering a pre-seminary program. They must be thoroughly committed to their calling to be a minister and should exhibit a Christian commitment in their academic and personal life. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply, use the Upper-class Named Scholarship Application available through KnightVision in January. This scholarship is automatically renewable for the senior year if the student maintains a grade point average of 3.00 or higher and is still planning on entering a pre-seminary program and is committed to their call to be a minister. One scholarship of $1,500 was awarded for 2007-2008.

Clarence and Janice Walhout Honors Scholarship Both Clarence and Janice Walhout taught in the Calvin English Department for nearly thirty years. Grateful for the many lifelong benefits they received from Calvin and confident that Calvin still offers the best Christian higher education available, they endowed this scholarship for the benefit of future Calvin students. They are particularly pleased that Calvin continues to pursue Christian education in a manner that is both traditional and progressive. While holding firmly to its Reformed heritage, the institution recognizes the importance of responding to current discoveries and movements in science and philosophy. Since their own education at Calvin came primarily from the English and Philosophy departments, they wish to give preference to students concentrating in one or both of these areas. However, the scholarship may also be awarded to deserving students in Physics or Music. Candidates are Calvin students entering their junior or senior year, with preference given to students pursuing a degree in English or Philosophy. Second preference is given to students pursuing Physics or Music. They must have a cumulative grade point average of 3.20 or higher. No separate application is required. This scholarship is automatically renewable if a cumulative grade point average of 3.20 or higher is maintained. Each year a student receiving an Honors Scholarship will be designated as a Clarence P. and Janice H. Walhout Honors Scholar.

Rev. David Warden Pre-Seminary Scholarship Dr. Bret and Mrs. Marlene Kort of Colorado Springs, Colorado, established this scholarship to recognize the selfless service provided by Rev. David Warden to the people on the Navajo reservation in Shiprock, New Mexico. Candidates are Calvin students entering their senior year who are pursuing a Pre-Seminary Program. Preference is given to students who have demonstrated a commitment to Christian service and leadership while at Calvin. They must have a cumulative Calvin

grade point average of 3.30 or higher. To apply, use the Upper-class Named Scholarship Application available through KnightVision in January. This scholarship is not renewable. One scholarship of $1,000 was awarded in 2007-2008.

Edward and Nancy Wasmer Family Honors Scholarship This scholarship was established by Mr. Edward and Mrs. Nancy Wasmer. Three of their children attended Calvin and it was a wonderful guide for their future. They want others to be able to experience the fantastic education Calvin provides. This scholarship is their way of saying thank you. Candidates are Calvin students entering their junior or senior year who are majoring in Engineering or Music. No separate application is required. Current recipients will be given equal consideration with other candidates. Each year one student receiving the Honors Scholarship will become an Edward and Nancy Wasmer Family Honors Scholar.

Ken and Sharon Wasmer Family Scholarship This scholarship was established by Ken and Sharon Wasmer, graduates of Calvin, who have been richly blessed by God and who wish to give back a portion to Calvin to allow others to experience Calvin. Candidates are students entering their first year at Calvin who are planning to major in the Engineering Program and who are members of a church other than the Christian Reformed church. They must have a grade point average of 3.30 or higher and demonstrate some evidence of financial need. No separate application is required. This scholarship is automatically renewable if a grade point average of 3.20 or higher is maintained. One scholarship of $2,000 was awarded for 2007-2008.

Samuel L. Westerman Foundation Scholarship Mr. Samuel L. Westerman established a foundation in 1971 and upon his death in 1984, his entire estate went to the foundation. The foundation graciously supports a wide range of worthy causes in education, arts and music, health, religion, and science. Candidates are Calvin students entering their junior or senior year who are active in the Calvin Service Learning Center or in other community service or volunteer work. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Six scholarships of $2,300 were awarded for 2007-2008.

Peter and Esther Westra Family Honors Scholarship This scholarship was established by the Westra family in honor of Mrs. Esther Westra and the late Mr. Peter Westra, long-time supporters of Christian education both at Calvin College and at Kalamazoo Christian Schools. Candidates are students entering their first year at Calvin who are graduates of Kalamazoo Christian High School in Kalamazoo, Michigan. If there are no qualified candidates from Kalamazoo Christian High School, prospective students from other schools in the Kalamazoo area will be considered. Final selection is based on the student's academic record, potential for college, participation and leadership in church, community, and extracurricular school activities, and financial need. No separate application is required. This scholarship is not renewable. Each year one or more students receiving the Honors Scholarship will be designated as Peter and Esther Westra Family Honors Scholars.

Rodney and Patricia Westveer Scholarship As Calvin alumni, Rodney and Patricia Westveer are grateful for having had the opportunity to experience the guidance, the challenges, and the excellence that Calvin offers. Through this scholarship they hope to provide women, age thirty and beyond with children, the opportunity to attend Calvin as they pursue new directions in their lives. Candidates are students entering any class level at Calvin who are pursuing any major. First preference is given to women over the age of thirty with children and second preference is given to minority students pursuing an education degree. They must have a grade point average of 2.50 or higher and demonstrate some evidence of financial need. To apply, use the Upper-class Named Scholarship Application available through KnightVision in January. This scholarship is automatically renewable if the student

maintains a cumulative grade point average of 2.50 or higher after their first year at Calvin. After the second and third years the renewal grade point average requirement is 3.00 or higher. One scholarship of $2,700 was awarded for 2007-2008.

Martin P. and Florence DeGraaff Wiebenga Scholarship The children of Mr. Martin and Mrs. Florence De Graaff Wiebenga established this scholarship to recognize the contributions Florence Wiebenga made to Calvin and its students through her seventeen years of service as an employee at Calvin. Additionally, they wish to express appreciation for the education that they and their spouses received at Calvin. The family's desire is to help students who lack sufficient resources to fund their education and who could also benefit from the opportunities made available through a Calvin education. Candidates are Calvin students entering their sophomore, junior, or senior year, with preference given to students planning to major in the Humanities and/or Arts. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. No separate application is required. This scholarship is automatically renewable if the student maintains a cumulative grade point average of 3.00 or higher and continues to demonstrate financial need. One scholarship of $1,800 was awarded for 2007-2008.

Dr. Morris Wilderom Scholarship The family of the late Dr. Morris Wilderom established this scholarship in his memory to be awarded to students in medicine. Dr. Wilderom graduated from Calvin in 1931 and received his Medical Degree from the University of Michigan in 1934. He practiced medicine in his early years in Medina, Ohio, served abroad in the U.S. Army during World War II, and served as a Kent County Health Officer for many years until his retirement in 1970. He passed away in 1985. Dr. Wilderom was very interested in helping students get an education. Candidates are Calvin students entering their junior or senior year who are pursuing a premed program. Other factors considered include the student's motivation, Christian character, and ability to contribute to the medical profession in future years. They must have a grade point average of 2.50 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Two scholarships of $1,700 were awarded for 2007-2008.

Bernard and Carol De Mots Woltjer Family Scholarship Mr. Bernard and Mrs. Carol Woltjer established this scholarship because of their desire to share with others the wonderful blessings of a Christ-centered education at Calvin. They are both graduates of Calvin and celebrate the faithfulness of God to their family as three generations have been educated at Calvin. Candidates are students entering their first year at Calvin, with preference given to students graduating from Hudsonville Unity Christian High School who have demonstrated leadership in church, community, and school activities other than athletics. They must have a high school grade point average of 2.50 or higher and demonstrate evidence of financial need. No application is required. This scholarship is not renewable. Two scholarships of $1,700 were awarded for 2007-2008.

Woodlawn Christian Reformed Church Minority Scholarship Woodlawn Christian Reformed Church of Grand Rapids, Michigan, established this scholarship for ethnic minority students to support and encourage their enrollment at Calvin. Candidates are ethnic minority students entering any class level at Calvin who demonstrate a personal commitment to Christ and His Church. They must have a cumulative grade point average of 2.50 or higher and demonstrate some evidence of financial need. No separate application is required. This scholarship is automatically renewable if a cumulative grade point average of 2.50 or higher is maintained. Two scholarships of $1,500 were awarded for 2007-2008.

James and Mary Workman Family Engineering Honors Scholarship This scholarship was established by Mr. James and Mrs. Mary Workman who are both alum-

ni of Christian schools and Calvin College. Christian education has also been a priority for their children. Jim and Mary feel Calvin prepares young Christians for leadership which is so important in today's world. Jim's career in manufacturing leads them to helping worthy engineering students. Candidates are Calvin students entering their junior year who are pursuing an Engineering degree. They must have a grade point average of 3.20 or higher and demonstrate some evidence of financial need. No separate application is required. This scholarship is automatically renewable for up to two years if a grade point average of 3.20 or higher is maintained. Each year two students receiving an Honors Scholarship will be designated as James and Mary Workman Family Engineering Honors Scholars.

Wendell and Dorothy Yonker Family Scholarship This scholarship was established to honor Mr. Wendell and Mrs. Dorothy Yonker's strong commitment to Christian education and Calvin's excellent preparation of students for service in God's world. Candidates are Calvin students entering their junior year who are pursuing a degree in Education or Business. They must have a grade point average of 2.50 or higher and demonstrate some evidence of financial need. No separate application is required. This scholarship is automatically renewable if the student remains in good academic standing. Two scholarships of $2,200 were awarded for 2007-2008.

Gertrude Pott Zwiep Memorial Scholarship Gertrude Pott Zwiep was an immigrant who, at fifteen years of age, came to America from the Netherlands in 1916 with her parents and six siblings. After her father died three years later, Gertrude was willing to work to contribute to make an education possible for her five brothers, all of whom became professionals. Mrs. Zwiep understood the value of an education even though she was financially unable to afford it for herself. She and her husband loved to travel internationally, especially to their fatherland, and now her children wish to give a spiritual blessing to an international student to attend Calvin. Candidates are students entering their first year at Calvin who are pursuing any field of study. Preference is given to students from the Netherlands, Germany, or Hungary, in that order. They must have a grade point of 3.00 or higher and demonstrate some evidence of financial need. No application is required. This scholarship is automatically renewable for the sophomore year if the student continues to meet the scholarship criteria. One scholarship of $2,200 was awarded for 2007-2008.

Departmental Scholarships Funded by Donors

A number of other scholarships have been established by donors to recognize students in particular departments. Applications for these scholarships are available from and must be submitted to the department for which the scholarship is designated, except for nursing, education, and engineering scholarships. To apply for nursing, education, and engineering scholarships, use the Upper-class Named Scholarship Application available through KnightVision in January. The application for most of these scholarships needs to be completed and submitted by March 1.

Alumni Association

Alumni Association Interim Scholarship This scholarship was established by the Calvin Alumni Association out of a desire to help students participate in one of Calvin's off-campus interim courses who might not otherwise have the opportunity. In addition to planning to participate in an off-campus interim, candidates must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. Final selection is based on the strength of the students' personal essay explaining the relevance of the interim trip to their course of study. The organization has made a number of travel grants available to Calvin students in amounts ranging from $200 to $500. Applications are available from the Office of Admissions and Financial Aid in September.

Alumni Association Legacy Scholarship To celebrate the legacy of Calvin attendance in succeeding generations, the Calvin Alumni Association annually awards eighteen scholarships of $1,000 each to incoming

first-year students who are children of Calvin alumni. The selection committee looks at legacy numbers (how many direct ancestors attended Calvin prior to the candidate), cumulative grade point average of 3.00 or higher, volunteerism/community service, and financial need. Both parents and at least one grandparent of the candidate must have attended Calvin for at least two full semesters. To be considered for this scholarship, contact the Calvin Alumni and Public Relations Office by March 1.

Alumni Association Minority Scholarship Each year the Calvin Alumni Association provides funds for scholarships for North American ethnic minority students who are planning to attend Calvin. Primary factors in the selection are the student's academic record, motivation, character, potential for success at Calvin, and financial need. A high school grade point average of 2.50 or higher is required. Applications are available online from the Calvin Alumni Association. Applications are due by February 1 of the student's senior year of high school. This scholarship is not renewable. Four scholarships of $2,000 were awarded for 2007-2008.

Alumni Association Service Scholarship The Calvin Alumni Association awarded eight scholarships of $1,200 for 2007-2008 to students who have been active in volunteer work on and off the Calvin campus through membership and involvement in student and/or community organizations (where payment for services has been minimal or nonexistent). Students who wish to qualify for these scholarships must be able to articulate a connection between their volunteer activity and life goals. A cumulative grade point average of 2.50 or higher is required. Candidates should obtain an application from the Alumni and Public Relations Office in November of their sophomore or junior year and return it by the due date. A team of Alumni Association Board members reviews the applications and interviews finalists during Homecoming weekend each February.

Brian De Wall Lakeshore Scholarship On January 25, 1997, a terrible automobile accident took the life of Calvin senior Brian De Wall (Fruitport, Michigan) and seriously injured Moni Anders (Galena, Ohio), Lori Powell (Worthington, Ohio), and Matt Remein (Silver Spring, Maryland). In time, Moni recovered, but Lori and Matt remained limited by brain injury. Lori eventually passed away in May 2006. In October 1999, a group of 46 Calvin students, staff, and alumni (organized by the Chaplain's Office) ran in the Chicago Marathon to raise money and encourage the De Wall, Powell, and Remein families whose lives were daily affected by that crash. The endowed dollars from this fundraising effort are entrusted to the alumni chapter leadership in the areas where these students lived to give thanks to God for their lives and to provide assistance for future Calvin students in their names. Candidates are students entering their first year at Calvin with a high school grade point average of 3.00 or higher. They must be a resident of the West Michigan Lakeshore area. First preference is given to students interested in engineering and second preference is given to students interested in science related fields. Financial need is not required. Interested candidates should apply through the Lakeshore Alumni Chapter. One scholarship of $800 was awarded in 2007-2008.

Cornelius and Marian Joosse Memorial Scholarship This scholarship was established with gifts from Mr. Harry and Mrs. Barb Kampenga in honor of their parents, Mr. Cornelius and Mrs. Marian Joosse. The Southeast Wisconsin Alumni Chapter awarded one scholarship of $1,500 to an upper-class student from the Southeast Wisconsin area in 2007-2008. Applications are available from the Alumni and Public Relations Office at Calvin. This scholarship is not renewable.

Lori Powell Central Ohio Scholarship On January 25, 1997, a terrible automobile accident took the life of Calvin senior Brian De Wall (Fruitport, Michigan) and seriously injured Moni Anders (Galena, Ohio), Lori Powell (Worthington, Ohio), and Matt Remein (Silver Spring, Maryland). In time, Moni recovered, but Lori and Matt remained limited by brain injury. Lori eventually passed away in May 2006. In October 1999, a group of 46 Calvin students, staff, and alumni (organized by the Chaplain's

Office) ran in the Chicago Marathon to raise money and encourage the De Wall, Powell, and Remein families whose lives were daily affected by that crash. The endowed dollars from this fundraising effort are entrusted to the alumni chapter leadership in the areas where these students lived to give thanks to God for their lives and to provide assistance for future Calvin students in their names. Candidates are students entering their first year at Calvin with a high school grade point average of 3.00 or higher. They must be a resident of the Central Ohio area. First preference is given to students interested in elementary or secondary education and second preference is given to students who are interested in working with children. Financial need is not required. Interested candidates should send a letter describing their academic qualifications and career goals to the Office of Admissions and Financial Aid by February 1. This scholarship is not renewable. One scholarship of $750 was awarded in 2007-2008.

Matthew Remein D.C. Area Scholarship On January 25, 1997, a terrible automobile accident took the life of Calvin senior Brian De Wall (Fruitport, Michigan) and seriously injured Moni Anders (Galena, Ohio), Lori Powell (Worthington, Ohio), and Matt Remein (Silver Spring, Maryland). In time, Moni recovered, but Lori and Matt remained limited by brain injury. Lori eventually passed away in May 2006. In October 1999, a group of 46 Calvin students, staff, and alumni (organized by the Chaplain's Office) ran in the Chicago Marathon to raise money and encourage the De Wall, Powell, and Remein families whose lives were daily affected by that crash. The endowed dollars from this fundraising effort are entrusted to the alumni chapter leadership in the areas where these students lived to give thanks to God for their lives and to provide assistance for future Calvin students in their names. Candidates are students entering their first year at Calvin who have a grade point average of 3.00 or higher. They must be a resident of the greater Washington, D.C. area. Preference is given to students interested in a career in the ministry or Christian service. Financial need is not required. Interested candidates should apply through the D.C. Area Alumni Chapter. This scholarship is not renewable. One scholarship of $750 was awarded for 2007-2008.

Art and Art History Department

A.M.D.G. Scholarship A.M.D.G. Architects, Inc. of Grand Rapids, Michigan, established this scholarship in an attempt to assist promising students in the field of architecture. More specifically, this scholarship is an attempt to continue the diversification of both Calvin and the architecture field. The goal of this scholarship is to encourage women and minorities to consider architecture as a profession. In light of this goal, preference is given to ethnic minority or international students, women, and/or non-Christian Reformed Church members. Candidates are Calvin students entering their sophomore, junior, or senior year who are enrolled in the Pre-Architecture program and who have already taken Engineering 103 (or its equivalent). Applications available online from the Department of Art and Art History. Selection will be made by the Department of Art and Art History. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $1,400 was awarded in 2007-2008.

Edgar G. Boevé Art Scholarship Through the generosity of alumni and friends, this scholarship honors Edgar G. Boevé for his contribution to the Art Department, the college, the denomination, and the larger community as an art teacher, the first chair of the Art Department, art consultant, artist, and leader. Candidates are Calvin students entering their junior or senior year who are majoring in studio art, art education or art history. A grade point average of 3.00 in courses from the Department of Art and Art History is required. There must be some evidence of financial need. Applications available online from the Department of Art and Art History in February. Applicants must submit an application, essay, and portfolio (art majors only) for consideration. Selection will be made by members of the Department of Art and Art History. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration

with other candidates. Two scholarships of $2,500 were awarded in 2007-2008.

Helen Bonzelaar Art Education Scholarship With a career devoted to art education—both in the elementary school classroom and in the Art Department of Calvin College—Professor Helen Bonzelaar, emeritus, knows the importance of teaching visual imagination and playful expression with visual images. This knowledge combines with her own joy in teaching art in motivating her to support an art education scholarship for students at Calvin. Her purpose is to advance the teaching of art. Candidates are Calvin students entering their junior or senior year who are pursuing a degree in Art Education. They must have a grade point average of 3.00 or higher. Financial need is not required. Applications available online from the Department of Art and Art History in February. Applicants must submit an application, essay, and portfolio for consideration. Selection will be made by members of the Department of Art and Art History. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $1,500 was awarded for 2007-2008.

Sandra Bowden Art Scholarship Mr. Robert Bowden from New York established this scholarship in honor of his wife, Sandra, who is an artist. They want to encourage Christian artists to prepare to become leaders in the field of art. Candidates are Calvin students entering their sophomore, junior, or senior year who are studio or art education majors. A grade point average of 2.50 or higher in courses from the Department of Art and Art History is required. Applications available online from the Department of Art and Art History in February. Applicants must submit an application, essay, and portfolio for consideration. Selection of the scholarship recipient will be made by members of the Department of Art and Art History. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $750 was awarded for 2007-2008.

Dr. Harold H. Johnson Scholarship The Theodore R. and Vivian M. Johnson Scholarship Foundation has provided funds for art and math scholarships in honor of Dr. Harold H. Johnson on the occasion of his retirement. The foundation seeks to enable qualified individuals, who might not be able to do so otherwise, to acquire skills and develop strength which enable them to realize their potential. Candidates are Calvin students entering their junior or senior year who are pursuing a degree in either Art or Mathematics. Financial need is required. Application available online from the Department of Art and Art History. Selection will be made by members of the Department of Art and Art History. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Four scholarships of $2,500 were awarded for 2007-2008.

Henry Van Andel Memorial Scholarship Mrs. Dorothea Van Andel Vergeer and Mr. John R. and Mrs. Phyllis Van Andel established this scholarship in memory of their father, Henry J. G. Van Andel, professor of Dutch language, literature, and culture at Calvin from 1915-1950. Professor Van Andel became especially beloved for his courses in Dutch and Flemish painting. Many of his students began with him a life-long journey of enjoyment in fine arts. It is the hope of Mrs. Vergeer and the Van Andels that this scholarship will provide encouragement to young Calvin students who wish to pursue studies in art. Candidates are Calvin students entering their sophomore, junior, or senior year who are majoring in Art or Art History. First consideration is given to students majoring in Art History; second consideration is given to students majoring in Studio Art or Art Education. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. Applications available online from the Department of Art and Art History in February. Applicants must submit an application, essay, and portfolio (art majors only) for consideration. Selection will be made by members of the Department of Art and Art History. Current recipients who wish to be considered for re-

newal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $2,900 was awarded for 2007-2008.

Joel S. Vander Sloot Memorial Scholarship Mr. Jack and Mrs. Joyce Vander Sloot established this scholarship in memory of their son, Joel, who lost his courageous battle with cancer on May 3, 2003. Joel was a 1991 graduate of Calvin who majored in Art and possessed a keen interest for photography. As the owner of Motophoto, a film processing business in Grand Rapids, Michigan, he provided Calvin students with a wonderful service by picking up their film orders on campus several times a week and returning their pictures the same day. Mr. and Mrs. Vander Sloot have been long-time supporters of Christian education from the elementary grades through college, and have established this scholarship to share the blessings that God has given them. Candidates are Calvin students entering their junior or senior year who are majoring in Studio Art, with first preference given to a student concentrating in photography. There should be some evidence of financial need. Applications are available online from the Department of Art and Art History in February. Applicants must submit an application, essay, and portfolio for consideration. Selection will be made by members of the Department of Art and Art History. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Two scholarships of $3,000 were awarded in 2007-2008.

Pat Snyder Verduin Scholarship This scholarship was established by Mr. Calvin and Mrs. Patricia Verduin of Grand Rapids, Michigan, for the benefit of art majors at Calvin. The Verduins want to encourage artists who are Christians to prepare for a life of service in the field of art directed by their Christian values. Candidates are Calvin students entering their junior or senior year who are pursuing a major in Art with the intention of becoming either a studio artist or art educator. They must have a grade point average of 2.50 or higher and demonstrate some evidence of financial need. Applications available online from the Department of Art and Art History in February. Applicants must submit an application, portfolio and essay which describes a work of art they have created and their motivation for doing that work of art with the relationship of their faith in Christ to their work as an artist. Selection will be made by members of the Department of Art and Art History. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $1,000 was awarded for 2007-2008.

Johanna Kempers Wyngaarden Scholarship In gratitude to God for His blessings over the years, Dr. James B. Wyngaarden of Durham, North Carolina, established this scholarship to honor his mother, Mrs. Johanna Kempers Wyngaarden. Mrs. Wyngaarden is lovingly remembered by her children as a warm and nurturing Christian mother who filled her home with music, art and inspirational prayers. The purpose of this scholarship is to strengthen Christian education in music and fine arts for worthy students. Candidates are students entering any class level at Calvin who are pursuing a degree in Music or Art and Art History. For the Department of Art and Art History scholarships, first preference is given to an Art Studio major, second preference is given to an Art Education major, and third preference is given to an Art History major. Candidates must show exceptional promise and leadership potential. Financial need will be considered. Applications available online from the Department of Art and Art History. Selection will be made by members of the Department of Art and Art History. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Three scholarships of $5,500 was awarded for 2007-2008, one to an art major and two to music majors.

Biology Department

Henry Bengelink Memorial Scholarship This scholarship was established to honor the memory of Professor Henry Bengelink and his wife, Pearl. Henry was one of sev-

en children of very poor Dutch immigrant parents. He earned his way through Calvin in the midst of the great depression and then returned there after World War II as a professor of Biology for more than thirty years. He is remembered by his sons and his students for his knowledge and love of his subject and for his life-long commitment to the art of teaching. Candidates are Calvin students entering their junior or senior year who are majoring in Biology with the intent of becoming a teacher at the high school or college level. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. Application available from the Biology Department. This scholarship is automatically renewable for one year if the student continues to meet the requirements. One scholarship of $2,400 was awarded for 2007-2008.

William John Heule Memorial Scholarship This scholarship was established to remember and honor the life of William John "Billy" Heule, beloved son, brother, grandson, and friend of many, whose life was cut short by a tragic car accident when he was only twenty. Billy was an avid bass fisherman. He loved to take his small aluminum boat—barely big enough for one person, three poles and four large tackle boxes—to the lake to catch this elusive fish. In 2001, upon graduating from high school, Billy joined a mission trip to Haiti. There, in a small overcrowded church in the most destitute part of Port-Au-Prince, Billy experienced the presence of God in a powerful way and understood his calling in life. He focused his studies on international business. While in Haiti, he also met the love of his life, Alysha McFadden, a Canadian native who had been working in an orphanage there for nine months. Despite full-time college, work, and making plans to get married, Billy continued to be drawn to the water and he would sneak out whenever possible to try a new lure or a new reel. Despite so many changes in his life, his passion for bass fishing never left him. His family would like this scholarship to support a Calvin student who shares Billy's love for bass fishing and the protection of in-land waters. Candidates are Calvin students entering their junior or senior year who are pursuing a Biology major. They must have a minimum grade point average of 2.30 or higher and demonstrate a passion for fishing (present or past membership in bass fishing clubs would have preference). Financial need is not required. Application available from the Biology Department. This scholarship is automatically renewable if the student maintains satisfactory academic progress. Two scholarships of $3,300 were awarded for 2007-2008.

Martin and Frances Karsten Biology Scholarship This scholarship was provided by a gracious bequest from the estates of Martin and Frances Karsten. Martin Karsten faithfully served Calvin as professor of biology for thirty years and concentrated in the areas of botanical sciences. Candidates are Calvin students entering their junior or senior year who are majoring in Biology, with preference given to those concentrating in botany. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. Application available from the Biology Department. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Four scholarships of $2,500 were awarded for 2007-2008.

William and Lois Venema Pre-Dental Scholarship These scholarships were established by William and Lois Venema. Having met at Calvin, had all three of their daughters graduate from Calvin and now with grandchildren attending, Dr. and Mrs. Venema wish to establish this scholarship in gratitude for the school and their hope for its future. Candidates are Calvin students entering their junior or senior year who are pursuing the Pre-Dental Program. They must have a grade point average of 3.00 or higher and demonstrate Christian character, promise of growth, and participation and leadership in activities outside the classroom such as church, community, and extra-curricular school activities. There should be some evidence of financial need. Applications are available from the Biology Department. This scholarship is automatically renewable for the senior year if the student makes satisfactory ac-

ademic progress and still qualifies for the Pre-Dental Program. Two scholarships of $2,400 were awarded for 2007-2008.

Chemistry and Biochemistry Department

Dr. Robert J. Albers Memorial Scholarship This scholarship was established to honor Dr. Robert Albers for his years of teaching at Calvin and for his contribution in establishing a program in Biochemistry. Candidates are declared Biochemistry majors entering their sophomore, junior, or senior year at Calvin who can demonstrate some evidence of financial need. They must have a grade point average of 3.00 in both their major and overall studies and be interested in a career in Biochemistry (this scholarship is not for pre-med students). They must also submit a one page (100-200 word) statement on their interest in Biochemistry or career plans in Biochemistry. Applications available from the Science Division office in mid February. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $3,400 was awarded for 2007-2008.

John A. Bolt Memorial Scholarship This scholarship was established to honor John A. Bolt who was a Calvin graduate, a research chemist, and Director of research for the American Oil Company. This scholarship recognizes his love for the field of science and his intense interest in encouraging young people to seek excellence in education. Candidates are Calvin students entering their junior or senior year who are majoring in Chemistry or Biochemistry, with preference given to those pursuing a career in teaching and/or research in the sciences. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. Applications available from the Science Division office in mid February. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Four scholarships of $2,350 were awarded for 2007-2008.

Peter and Margaret (Bell) De Haan Chemistry Scholarship Mrs. De Haan established this scholarship to benefit students in Chemistry in memory of her late husband, Peter. Candidates are Calvin students entering their junior or senior year who are Chemistry or Biochemistry majors. Also considered is Christian character, personality, and promise of growth. There should be some evidence of financial need. Applications available from the Science Division office in mid February. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $2,800 was awarded for 2007-2008.

Harley A. and Julia Janssen Scholarship This scholarship was established to honor Harley A. and Julia Janssen of Ackley, Iowa. Harley embraced his lifetime vocation as a Christian farmer, and he and Julia clearly understood the value of Christian higher education for the next generation as they find their lifelong vocations. The Janssens also recognized and valued the commitment and contributions of their daughter and son-in-law, Mary Jo and Larry Louters, to the mission of Calvin. With the goal of encouraging and supporting students at Calvin who intend to teach at the secondary or collegiate level, this scholarship gives first preference to Chemistry or Biochemistry majors or minors. Other science majors with an intention to teach may also be considered. Candidates are Calvin students entering their junior or senior year who are active in the life of their department. They must have a grade point average of 3.20 or higher and demonstrate some evidence of financial need. Applications available from the Science Division office in mid February. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $1,700 was awarded for 2007-2008.

Bruce and Alice Klanderman Scholarship This scholarship was established by Bruce and Alice Klanderman to recognize scholarship, hard work, and a disciplined approach to study by a Chemistry, Biochemistry, or Chemical Engineering major, with preference given to a student who plans

to attend graduate school. Bruce, class of 1959, majored in Chemistry at Calvin, and Alice, class of 1958, majored in Education. Bruce went on to earn his M.S. and Ph.D. in Chemistry from the University of Illinois before going to work in chemistry research and environmental technology management for the Eastman Kodak Company in Rochester, New York. Candidates are Calvin students entering their junior or senior year who are pursuing a Chemistry, Biochemistry, or a Chemical Engineering major. They must have a grade point average of 3.80 or higher, which recognizes achievement in all courses of study. Financial need is not required. Applications available from the Science Division office in mid February. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $2,000 was awarded for 2007-2008.

Pfizer Scholarship The Pfizer Scholarship is funded by the Pfizer Corporation, which is a leading international developer, manufacturer, and marketer of pharmaceutical products. The purpose of this scholarship is to attract, encourage, and support students interested in pursuing careers in the chemical sciences by giving them financial support, academic recognition, and connections to a major pharmaceutical company. Candidates are Calvin students entering their junior or senior year who are majoring in Chemistry, Biochemistry, or Chemical Engineering. They must have an academic advisor from their major department and have an established record of enthusiasm for and involvement in the ongoing work of their major department. They must have a cumulative grade point average of 3.30 or higher. Financial need is not required. Applications available from the Science Division office in mid February. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Five scholarships of $4,000 were awarded for 2007-2008.

Dr. and Mrs. Enno and Lucile Wolthuis Chemistry Scholarship Dr. Enno Wolthuis, Professor of Chemistry at Calvin from 1949-1976, established this scholarship for the benefit of Chemistry and Biochemistry majors who have an interest in pursuing a career in research or college-level teaching. Dr. Wolthuis always provided his students with an excellent example of what it is to be a teacher-researcher. Many of Calvin's alumni active in Chemistry owe him a debt of gratitude for his wise counsel and encouragement. Candidates are Calvin students entering their sophomore, junior, or senior year who are Chemistry or Biochemistry majors, with preference given to students interested in pursuing a career in research and/or college-level teaching. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. Applications available from the Science Division office in mid February. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Three scholarships of $2,400 were awarded for 2007-2008.

Classical Languages Department

Ralph Stob and Boertje Family Scholarship This scholarship was established by Michelle Boertje Scripps to honor four generations of family members who are closely connected to Calvin: Mr. Ralph Stob (great-grandfather), Rev. Paul and Mrs. Lois (Stob) Boertje (grandparents), Mr. David and Mrs. Linda Boertje (parents), and Michelle. When Michelle's father, David, died unexpectedly at the age of 57, Michelle decided to establish this scholarship to honor him and the family's ties to Calvin. Because several in her family valued Latin as important for understanding the English language and the roots of much of our culture, learning, and religious heritage, the goal of this scholarship is to encourage students to consider and prepare for a career in teaching Latin. Candidates are students entering any class level at Calvin who are majoring or planning to major in Classics or Latin, with preference given to students interested in teaching Latin. Financial need is not required. No separate application is required. This scholarship is automatically renewable if the student continues to be interested in

teaching Latin and maintains an appropriate grade point average as determined by the Classics Department. One scholarship of $2,300 was awarded for 2007-2008.

Ernest Van Vugt Scholarship Ernest Van Vugt was a distinguished Professor of Latin and classical mythology at Calvin from 1955 to 1977 and also served as Registrar of the college from 1972 until his retirement in 1987. A veteran of the Navy Air Corps during World War II, Professor Van Vugt graduated from Calvin in 1954 and earned a master's degree in Latin from the University of Michigan. He was a much loved teacher and colleague, memorable for his calm and gracious temperament, his fine wit, his commitment to excellence, and his deep love for language and the liberal arts. He pioneered the teaching of classical mythology at Calvin, now a centerpiece of classical studies; but even more admirably he led a generation of young people to grasp the power of Vergil's poetry and the value of ancient wisdom in the formation of the Christian mind. Family and friends of Professor Van Vugt established this scholarship as a memorial to his love for the classics, Calvin and its Lord, and as an encouragement to future students in the disciplines he held so dear. Candidates are Calvin students entering their junior or senior year who are pursuing a Classics major or who have a special interest in the Classics. They must have a grade point average of 3.30 or higher. Financial need is not required. No separate application is required. Candidates will be nominated and selected by the Classics Department. This scholarship is not renewable. One scholarship of $2,500 was awarded for 2007-2008.

Richard and Sylvia Wevers Scholarship This scholarship was established by Richard and Sylvia Wevers because they are convinced of the need for vigorous theological training of students preparing for the Christian ministry and of the central place of Biblical textual studies for doing sound theology. In the course of his 35-year career as a professor of classics where he helped train countless pre-seminarians in Greek, Richard Wevers and his wife Sylvia both developed the conviction that early and thorough study of the Greek language is indispensable for effective textual study of the Bible and that the benefits of understanding the culture, ideals, and history of the world in which the Septuagint was disseminated and the New Testament was written are invaluable. Candidates are Calvin students entering their senior year who are students of Greek and majoring in a program in the Classics Department. They must be seriously committed to Christian ministry in the Christian Reformed Church and be planning to receive their seminary education at Calvin Theological Seminary. They must have a grade point average of 3.30 or higher. Financial need is not required. No application is required. This scholarship is not renewable. One scholarship of $2,500 was awarded for 2007-2008.

Communication Arts and Sciences Department

Ervina Boevé Scholarship for Theatre Arts Through the generosity of former students and friends, this scholarship honors Mrs. Ervina Boevé for her contribution to the theatre and the college while serving as Director of Thespians. Candidates are Calvin students entering their junior year as a CAS theatre major. Selection is based on academic record and proven ability and dedication in performance, production, or scholarly research in theatre. Application available online from the Communication Arts and Sciences Department. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Two scholarships of $1,550 were awarded for 2007-2008.

Calvin Media Scholarship Norman and Crystal Unema established this scholarship for students who are planning a career in journalism, radio, or television broadcasting. Candidates are Calvin students entering their junior or senior year who are committed Christians and who are dedicated to the Calvinistic world-and-life view. Selection is based on academic record and proven ability in one of the three areas listed above. A cumulative grade point average of 3.00 or higher is required. Application available online from the Communication Arts and Sciences Department. Current recipients who wish to be considered for

renewal must file a new application each year and will be given equal consideration with other candidates. Two scholarships of $2,400 were awarded for 2007-2008.

CAS Department Mentoring Scholarship The Communication Arts and Sciences Department at Calvin established this scholarship in an effort to recruit excellent freshmen declaring a CAS major to Calvin. The program is funded by gifts from the CAS faculty and other contributions. The department will look for applicants with the promise of becoming communication educators or industry leaders. The recipient will work closely with a faculty member for at least five hours weekly as a research assistant for the academic year. A grade point average of 3.00 or higher is required. Financial need is not required. Application available online from the Communication Arts and Sciences Department. Application deadline is February 1. This scholarship is not renewable. One scholarship of $2,150 was awarded for 2007-2008.

David J. Holquist Scholarship This scholarship was established to honor David Holquist, a Calvin professor of Communication Arts and Sciences who influenced the lives of many students through his personal and professional commitment to redeeming interpersonal communication. Candidates are Calvin students entering their junior or senior year who are pursuing a major in Communication Arts and Sciences. They must have a cumulative grade point average of 3.00 or higher and demonstrate a commitment to serving others through such activities as community service, church involvement, small group leadership, and the support and encouragement of other students. Special consideration will be given to students working with victims of injustice or personal tragedy. Application available online from the Communication Arts and Sciences Department. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $2,100 was awarded for 2007-2008.

John Miller Scholarship Mr. John Miller, the youngest of eight children, was born on October 22, 1901, on his father's 60th birthday. Mr. Miller was a lifetime member of the Midland Park Christian Reformed Church, where he was an organist from 1920-1950. Later he directed Paterson's Cathedral Choir for many years. He loved oratorio and opera. This scholarship was established in honor of Mr. Miller for supporting the donor in his love for theatre and music while at Calvin. Candidates are Calvin students entering their junior or senior year who are majoring in Communication Arts and Science and who demonstrate excellence in theatrical ability. They must have a grade point average of 3.00 or higher and demonstrated some evidence of financial need. Application available online from the Communication Arts and Sciences Department. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $1,000 was awarded for 2007-2008.

Ann Janssen Noteboom Scholarship This scholarship was established by William and Ann Noteboom. Dr. Ann Noteboom taught at Calvin for thirty-five years. Candidates are Calvin students entering their junior or senior year who are Communication Arts and Sciences majors and who show outstanding promise in the areas of oral interpretation, performance studies, and/or public address. They must have a grade point average of 3.00 or higher. Application available online from the Communication Arts and Sciences Department. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Two scholarships of $2,000 were awarded for 2007-2008.

Phyllis Den Braber Van Andel CAS Scholarship Phyllis Den Braber Van Andel has been interested in live drama since her elementary school days. She participated in Thespians while at Calvin and studied drama at Western Michigan University with Laura Shaw. She was also the first speech major to graduate from Calvin. As a confirmed "play-goer", she delights in the quality of the Calvin Theatre Company and the

excellent faculty directors and designers who are involved in each production. The plays chosen challenge both actors and audiences. It is a pleasure for her to contribute to the success of the program through the funding of a scholarship for theatre students. Candidates are Calvin students entering their junior or senior year who are majoring in Communication Arts and Sciences. First preference is given to students pursuing a theater major and second preference is given to students pursuing a major in film studies, media studies or media production. There should be some evidence of financial need. Applications available online from the Communication Arts and Sciences Department. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $1,000 was awarded for 2007-2008.

Vande Guchte Award in Communication Disorders This scholarship was established to encourage students who are planning to enter the fields of speech-language pathology or audiology. Candidates are Calvin students entering their sophomore or junior year who exhibit high academic record, Christian character, and commitment to service in the speech and hearing profession. Financial need is not required. Application available online from the Communication Arts and Sciences Department. Current recipients who wish to be considered for renewal must file a new application every year and will be given equal consideration with other candidates. One scholarship of $500 was awarded for 2007-2008.

Grace Dykstra Vellenga Scholarship Mrs. Grace Dykstra Vellenga was raised in the Roseland area in Chicago and attended Calvin for one year. Because of the Depression she was not able to complete her degree program. Nonetheless, she maintained a keen interest in effective communications and was active in giving public readings and elocution instruction to private students. After the untimely death of her husband, Bernard, Jr., in 1956, she returned to school as a non-traditional student at age 45 and completed her associate degree in Speech Communication at Columbia College in Chicago. Subsequently, she served as co-hostess of the Home Hour on the Moody Bible Institute Radio Station (WMBI) in Chicago. Mrs. Vellenga was an active witness for Jesus Christ and frequently used her speaking skills in serving as a Bible class teacher and Bible study group leader. This scholarship was established to support Calvin students desiring to integrate their faith with a career in communications. Candidates are Calvin students entering their junior or senior year who are pursuing a program in Communication Arts and Sciences, with preference given to students majoring in telecommunications. Preference will also be given to students who are planning a career in the Christian media and to those who demonstrate the ability to express the importance of their Christian faith in their lives. They must have a Calvin grade point average of 3.00 or higher and demonstrate some evidence of financial need. Application available online from the Communication Arts and Sciences Department. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Two scholarships of $2,000 were awarded in 2007-2008.

Computer Science Department

Gordon J. VanderBrug Scholarship As a twenty-five year old Calvin instructor, Gordon J. VanderBrug believed that computers were vital to a college education. As a result, during the 1968-1969 academic year, he taught the first computer science class in Calvin's history. Undeterred by the fact that the college did not have a computer, he found a local engineering company who was willing to let the students use its computer in the evening hours. Nearly thirty interested students and faculty, including fifteen in his numerical analysis class completed the course. Calvin is grateful for Gordon VanderBrug's generous efforts on behalf of his students and the college. Candidates are Calvin students entering their junior or senior who are majoring in computer science or majoring in mathematics with a computer science minor. They must have a grade point average of 3.00 or higher. Financial need is not required.

This scholarship is not renewable. Application available online from the Computer Science Department. Three scholarships of $1,500 were awarded for 2007-2008.

Economics and Business Department

Clarence and Nelly Battjes Memorial Scholarship Clarence Battjes was a businessman who attended Calvin from 1924 to 1925. In the early portion of his career he worked for Consumers Power Company and eventually left its employ to work in small business. In 1949 he organized an auto dealership which he owned until his death in 1963. His wife, Nelly, established this scholarship in his memory to encourage other Calvin students in their pursuit of business knowledge. Candidates are Calvin students entering their junior or senior year who are concentrating in business administration. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. Application available from the Economics and Business Department early in the spring term. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Three scholarships of $2,200 were awarded in 2007-2008.

John and Judith Bielema Economics and Business Scholarship Mr. John and Mrs. Judith Bielema are strong supporters of Christian liberal arts education and have provided this scholarship for students entering their junior year in the Economics and Business department and who demonstrate promise of leadership and the ability to integrate Christianity in their chosen field of study. A cumulative grade point average of 3.00 or higher is required and financial need may be considered. Application available from the Economics and Business Department early in the spring term. This scholarship is not renewable. One scholarship of $1,500 was awarded for 2007-2008.

Lawrence D. Bos, Sr. Family Scholarship This scholarship celebrates Mr. Bos' long career in the life insurance business in the Grand Rapids area. It has been established to recognize and encourage deserving students in the fields of business and economics to promote responsible Christian capitalism in their business lives and in their contributions to the economic well-being of the community. Candidates are Calvin students entering their junior or senior year who are pursuing a degree in Economics or Business, with preference given to students planning to enter the life insurance field. They must have a cumulative grade point average of 3.50 or higher. Application available from the Economics and Business Department early in the spring term. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Three scholarships of $2,600 were awarded for 2007-2008.

Margaret and Douglas Bush Family Business Scholarship The Bush family provided Calvin with funds to encourage worthy students to prepare for positions in business and business education. Selection is based on diligence, character, commitment to service of the Lord and humankind, promise of growth, and in some cases, financial need. Although the student's academic record is not a primary factor, a grade point average of 3.00 or higher is required. Application available from the Economics and Business Department early in the spring term. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Four scholarships of $2,000 were awarded for 2007-2008.

Business as Mission Scholarship This scholarship was established by a family who desires to promote the worldview that business and economics as a calling can be used to expand and promote God's kingdom. This scholarship is given to strengthen a business student's passion, calling and understanding of how business and economics can be used for spreading the gospel, promoting justice, alleviating poverty and improving lives. Candidates are Calvin students entering their junior or senior year who are able to articulate a personal testimony and a developing calling for using business skills in developing countries. Preference is given to Economics and Business majors or minors. IDS majors may be considered. Candidates

applying to study in Honduras must be conversationally competent in Spanish. There should be some evidence of financial need. Application available from the Economics and Business Department early in the spring term. This scholarship is not renewable. One scholarship of $3,500 was awarded for 2007-2008.

Gordon and Rose Buter Business Administration Scholarship The Gordon Buter family established this scholarship for students majoring in Business. Gord Buter was an active supporter of the Calvin community and the Alumni Association for several years. Candidates are Calvin students entering their senior year who are pursuing a program in Business Administration. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. Application available from the Economics and Business Department early in the spring term. This scholarship is not renewable. Three scholarships of $2,100 were awarded for 2007-2008.

Frank and Bernice Deppe Family Scholarship Frank and Bernice Deppe have been longtime supporters of Christian education and of Calvin. Three of their four children have attended Calvin and it is their sincere hope and desire that their grandchildren will become students at Calvin as well. Mr. Deppe owned and operated a construction and tool equipment business for most of his working career, and because of their background in business, the Deppes now wish to provide this scholarship to students majoring in the Business Administration program at Calvin, with preference given to students interested in pursuing a career in sales and marketing. Candidates are Calvin students entering their junior or senior year who have a cumulative grade point average of 3.00 or higher and who demonstrate some evidence of financial need. Application available from the Economics and Business Department early in the spring term. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Two scholarships of $1,800 were awarded for 2007-2008.

Patricia S. Duthler Scholarship The Duthler family has enjoyed a long legacy of entrepreneurship and this scholarship springs from Patricia's gratitude for that gift. In her hope to diversify the student population at Calvin, this scholarship invests in students from developing third-world countries committed to Christian leadership in the business world. It is Patricia's hope that the recipient will return to his or her country after graduation to make an impact on its social, economic, and political cultures. Candidates are Calvin students from developing third world countries who demonstrate effective oral and written communication skills, with preference given to students majoring in one of the areas of study offered by the Economics and Business Department, with demonstrated aptitude in business. They must have made voluntary contributions to the community, preferably secular and demonstrate evidence of spiritual growth and integration of faith with life. They must also have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. Application available from the Economics and Business Department early in the spring term. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $3,000 was awarded for 2007-2008.

J. Herman and N. Lucile Fles Family Scholarship This scholarship was established by the family of Mr. J. Herman and Mrs. N. Lucile Fles of Grand Rapids, Michigan, for students in Business Administration. Mr. and Mrs. Fles both attended Christian schools in Grand Rapids and graduated from Calvin. They were both active and loyal supporters of the Grand Rapids Christian Schools and Calvin College and believed strongly in the value of a Christian education. Mr. Fles was also actively involved in supporting the Michigan Colleges Foundation, an organization of private, liberal arts colleges in Michigan. Mr. Fles spent his entire working career with Associated Truck Lines Inc. in Grand Rapids and was Chairman of the Board when he retired after more than fifty years in business. The family established

this scholarship as a tangible expression of their continued love for and dedication to a Christian liberal arts education. Candidates are Calvin students entering their junior or senior year who are pursuing a program in Business Administration, with first consideration given to students who are graduates of Grand Rapids Christian High School. Graduates of other Christian High Schools in western Michigan will also be considered. There must be some evidence of financial need. Application available from the Economics and Business Department early in the spring term. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Three scholarships of $2,200 were awarded for 2007-2008.

Marsha Greenwood Memorial Scholarship Marsha Greenwood's two children are graduates of Calvin with degrees in Business and Education. Mrs. Greenwood desired that a bequest from her estate be used to establish a scholarship for Education and Economics and Business majors. This scholarship alternates on an annual basis between Education majors and Economics and Business majors. Candidates are Calvin students entering their junior or senior year who are pursuing a career in education or business (Post BA is allowable for education students). They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. Application available from the Economics and Business Department early in the spring term. This scholarship is not renewable. One scholarship of $2,000 was awarded to an education major in 2007-2008.

Robert and Harriet Hasper Accounting Scholarship The Hasper family established this scholarship to express gratitude to God for the excellent Christian education the Hasper family received at Calvin and to express appreciation to Mr. Gordon Buter, who interested Robert in accounting. Candidates are Calvin students entering their junior or senior year who are pursuing a degree in accounting and who display a strong Christian commitment and an excellent potential for leadership. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. Application available from the Economics and Business Department early in the spring term. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $2,500 was awarded for 2007-2008.

James R. Hertel Scholarship Mr. James Hertel established this scholarship in appreciation for the fine education he received at Calvin. Candidates are Calvin students entering their junior or senior year who are pursuing a major in the Economics and Business Department. They must have a cumulative grade point average of 2.70 or higher and demonstrate some evidence of financial need. Preference will be given to students who are highly motivated and working up to their potential but who do not necessarily have the highest grade point average. Application available from the Economics and Business Department early in the spring term. Current recipients who wish to be considered for renewal must file a new scholarship application each year and will be given equal consideration with other candidates. Two scholarships of $2,600 were awarded for 2007-2008.

Janson Entrepreneurial Scholarship Dan Janson was a scholarship recipient at Ohio State University. He was offered his scholarship because he was an outstanding athlete. He lost his scholarship when he was injured and could not participate at the high level of competency that was expected. Dan came to Calvin for his senior year and made a number of friends as well as discovering his calling. Mr. Janson has agreed to mentor the scholarship recipient as well as assist the student financially. Candidates are Calvin students entering their junior or senior year who show a concrete example or a desire to start their own business. There should be some evidence of financial need. Application available from the Economics and Business Department early in the spring term. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration

with other candidates. One scholarship of $750 was awarded for 2007-2008.

John and Marge Kuyers Family Scholarship This scholarship was established to provide support to students planning a career in business or accounting and demonstrating the potential to make a difference in business as a Christian. Candidates are Calvin students entering their junior or senior year who are pursuing a program in Business Administration. They must have a grade point average of 2.70 or higher and demonstrate some evidence of financial need. Application available from the Economics and Business Department early in the spring term. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Two scholarships of $3,000 were awarded for 2007-2008.

Rietberg Family Scholarship This scholarship was established by the Gerald R. Rietberg family of Grand Rapids, Michigan. Dr. and Mrs. Rietberg have been strong supporters of Calvin over the years and they and their children are all Calvin alumni. This scholarship was established for students who exhibit a commitment to the highest ethical and moral standards in pursuing a career that provides for the exercise of Christian leadership in business and/or public administration. Candidates are Calvin students entering their junior or senior year who are pursuing a major in Business and/or Public Administration and who plan to participate in an internship or in the cooperative education program. Preference will be given to students who have participated in volunteer or extra-curricular activities related to their field of study. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. Application available from the Economics and Business Department early in the spring term. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $2,700 were awarded for 2007-2008.

Roels Business Scholarship This scholarship was established by Shirley and John Roels when Shirley was a faculty member of the Department of Economics and Business. It is meant to assist business students whose pre-college support has been limited because of economic, social, educational, or familial factors. This scholarship was established to encourage such students to follow their sense of Christian calling to business and practice. Candidates are Calvin students entering their junior or senior year who have potential for leadership in the fields of business or economics. Applicants must be first generation college students with a grade point average of 3.30 or higher. Financial need is not required. Application available from the Economics and Business Department early in the spring term. Current recipients who would like to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $1,000 was awarded for 2007-2008.

Jacob and Jennie Tuinstra Scholarship Ms. Doris Tuinstra of Grand Rapids, Michigan, established this scholarship to honor her parents, Jacob and Jennie Tuinstra. Ms. Tuinstra was an active member of the business community in Grand Rapids for many years. This scholarship was established to encourage good students, especially women, to pursue careers in business. Candidates are Calvin students entering their junior or senior year who are business majors, pursuing a B.S. in the Accountancy program, or pursuing a group major with an emphasis in business. Selection is based primarily on motivation and potential for Christian service in a business career, but academic record and financial need will also be considered. Application available from the Economics and Business Department early in the spring term. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $4,100 was awarded for 2007-2008.

Charles J. VanDenBerg Family Business Scholarship The family of Charles J. VanDenBerg has been greatly blessed by God with both spiritual growth and as trustees

of His financial resources. They are grateful to be able to share these resources with those who display financial need. They also feel it is the responsibility of each Christian to influence and change the world by being a beacon of light to the world. To this end, they would like to encourage the continuing conversation on what it means to be a Christian in business. Candidates are Calvin students entering their junior or senior year who are pursuing a Business major (not an Economics, Accounting, or Business Group major). They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. Application available from the Economics and Business Department early in the spring term. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $2,600 was awarded for 2007-2008.

Herbert and Doris Vander Mey Scholarship Mr. Herbert and Mrs. Doris Vander Mey are long-time residents of Grand Rapids, Michigan. Herbert served in management and executive capacities with the Michigan Wheel Corporation from 1944 to 1986. Partially because of Mr. Vander Mey's long tenure in corporate management, the Vander Meys have a keen interest in promoting creative approaches to meeting management needs in a changing global society with an increasingly worldwide and free market. Candidates are Calvin students entering their junior or senior year who are pursuing a career in Business or Economics and who demonstrate the potential to use creative approaches in addressing the management and economic needs of a changing global society. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. Application available from the Economics and Business Department early in the spring term. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Three scholarships of $2,400 were awarded for 2007-2008.

Randall K. Vander Weele Memorial Scholarship The family and friends of the late Randall K. Vander Weele established this scholarship in memory of Randall, a 1981 Calvin graduate who was tragically killed in an automobile collision with a drunk driver shortly after graduation. Because of Randall's interest in business, this scholarship was established to assist students who are pursuing a business or accounting program at Calvin. Candidates are Calvin students entering their senior year who are pursuing a major in Business or Accounting and who plan to pursue a career in Business. Financial need is not required. Application available from the Economics and Business Department early in the spring term. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Two scholarships of $5,500 were awarded for 2007-2008.

Kenneth J. Van Spronsen Memorial Scholarship This scholarship was established in memory of Kenneth J. Van Spronsen by his wife, family, and friends. Ken, a 1989 graduate of Calvin, was ambitiously pursuing a business career when he was tragically killed in an automobile accident in October 1992. Candidates are Calvin students entering their junior or senior year who are pursuing a business major or group major with an emphasis in business who exhibit initiative in pursuing experience related to their major through activities such as an internship, part-time job, summer jobs, and/or extra-curricular activities. Preference is given to students who are not residents of Michigan. They must have a cumulative grade point average of 2.70 or higher and demonstrate some evidence of financial need. Application available from the Economics and Business Department early in the spring term. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Three scholarships of $2,000 were awarded for 2007-2008.

Bernard Vellenga, Jr. Scholarship Mr. Bernard Vellenga, Jr. was raised in the Roseland area of Chicago and entered the family business after his junior year of college. Even-

tually, he became president of the company and a recognized national leader in the industry and trade associations. He continued in this position until his untimely death at age fifty in 1956. However, his career became secondary as his Christian witness and desire to tell others of the saving grace of Jesus Christ took prominence. He also recognized the value of a Christian college degree in the development of young people desiring to pursue a business career. This scholarship was established by the family of Mr. Vellenga in recognition of his Christian witness, example, and desire to help Christian young people pursue their goals in the business and economic life of our culture. Candidates are Calvin students entering their junior or senior year who are pursuing a program in Business Administration or Accounting, with preference given to students majoring in Business Administration. Preference is also given to students who have been involved in volunteer and extracurricular activities and to those who demonstrate the ability to express the importance of their Christian faith in their lives. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. Application available from the Economics and Business Department early in the spring term. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Two scholarships of $2,000 were awarded for 2007-2008.

John and Dorothy Wiest Accounting Scholarship This scholarship was established by Mr. John and Mrs. Dorothy Wiest to acknowledge their appreciation for Calvin students who have worked for them in the past. The Wiests have had an opportunity to hire accounting students during busy tax seasons. They have not only been pleased with the quality of the work performed, but have also found that Calvin students have been a pleasure to have as part of the office staff. Candidates are Calvin students entering their junior or senior year who are pursuing an Accounting degree. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. Application available from the Economics and Business Department early in the spring term. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $1,800 was awarded for 2007-2008.

Scholarship for Women in Business Barbara and Melvin VanderBrug of Detroit, Michigan, established this scholarship to encourage women students, particularly those with entrepreneurial interests, to enter the for-profit business world. Candidates are female Calvin students who are entering their junior or senior year and who are majoring in a business field, with preference given to those with small business or entrepreneurial interests. Preference is also given to permanent residents of Southeastern Michigan, in particular, Wayne, Oakland, and Macomb counties, or have been so through the formative years of their life. A cumulative grade point average of 3.00 or higher is preferred and they should demonstrate some evidence of financial need. Application available from the Economics and Business Department early in the fall term. Current recipients may apply for renewal of the scholarship and will be given some, but not overwhelming, preference over new candidates. One scholarship of $10,000 was awarded for 2007-2008.

Education Department

Rose M. Bloem Scholarship Rose and Harry Bloem have been long-time supporters of Christian education and have a lengthy and trusted relationship with Calvin. Rose graduated from Calvin in the field of education and Harry has served on the Calvin Board of Trustees. Three of their children—Jim, Nancy, and David—are alums of Calvin. Their fourth child, Michael, is developmentally disabled and has had many wonderful experiences with the special education teachers he has encountered. Rose and Harry are very grateful to those dedicated special education teachers who, in so many ways, touch the lives of students with developmental disabilities. It is the desire of the Bloem family to provide this scholarship to Calvin students who are pursuing a degree in Special Education with the hope that each recipient will demonstrate the

same warm and caring characteristics they saw in those teachers who came in contact with Michael. Candidates are Calvin students entering their junior or senior year who are pursuing a program in Special Education. Post BA students pursuing teacher certification are also eligible. There should be some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Two scholarships totaling $3,000 were awarded for 2007-2008.

Katherine and Annette Bratt Scholarship This scholarship was established by Annette Bratt in memory of her sister and Calvin alumna, Katherine, whom she greatly admires. A conscientious, creative elementary-level teacher of exceptional ability, Katherine first taught for many years in the Holland Christian School. She then was asked to help found the Wilkinsburg Christian School in the Pittsburgh area by serving as one of its two first teachers, a challenge she prayerfully accepted. The Wilkinsburg school has now developed into a comprehensive K-12 system. It was from that system that she retired. Annette Bratt, who concluded her professional career as a Clerk of the Court, established this scholarship for teachers aiming to teach in the elementary school level in the conviction that the quality of early education is decisive in the development of every student's life. Candidates are Calvin students entering their junior or senior year who are in the Elementary Education program. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply, use the Upper-class Named Scholarship Application available through KnightVision in January. This scholarship is automatically renewable if the student maintains satisfactory academic progress. One scholarship of $2,300 was awarded for 2007-2008.

Gysbert and Marie Bron Scholarship This scholarship was established by Aletta Graves in honor of her parents Mr. Gysbert and Mrs. Marie Bron. Candidates are Calvin students entering their junior or senior year who are pursuing an Education degree or program. Preference is given to students who demonstrate exemplary Christian character, the highest moral values as well as virtues and habits worthy of being modeled by the recipient's future students. They must have a grade point average of 2.50 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Six scholarships of $1,700 were awarded for 2007-2008.

John L. De Beer Memorial Scholarship This scholarship was established by Mrs. Ann Heyns De Beer and her family in honor of the contributions to Calvin of John L. De Beer, long time professor of education, and founder and director of the Instructional Resources Center. Candidates are Calvin students entering their junior or senior year who are pursuing a program in either elementary or secondary education. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $800 was awarded for 2007-2008.

Kevin Dale De Rose Memorial Scholarship Kevin De Rose was a bright, fun-loving junior from Palos Heights, Illinois, who died after being struck by a car on the East Beltline on October 27, 1989. As a result of his volunteer work at Campus Life Ministries with high school students and after a great deal of prayer and soul-searching, Kevin had changed his field of study to Education. He loved to write and he planned to major in English. His love for God was obvious to all who knew him because he displayed an extraordinary amount of love and concern for others. His family and friends established this scholarship to assist students who demonstrate a love for providing Christian service in non-academic areas of life, as Kevin did. Candidates are Calvin students who have been admitted to the teacher education program, with

preference given to those with the greatest financial need and to those planning to pursue a career in teaching English at the secondary level. They must have a cumulative grade point average of 3.00 or higher. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $2,100 was awarded for 2007-2008.

DeVries-Post Teacher Education Scholarship Mr. John W., Jr. and Dr. Arden R. (DeVries) Post of Grand Rapids, Michigan, wish to thank God for His material blessings to them, thank their parents for nurturing them in Christian love, and thank their Christian teachers for the education they were provided. To show their gratitude, this scholarship was established to assist future educators in the teacher education program at Calvin. This scholarship has been named in honor of their parents to recognize them for all they have done. Because of their special interest in minorities and persons with disabilities, this scholarship is directed first to individuals from either of these groups who demonstrate financial need. Second consideration will be to students who have a cumulative grade point average of 3.00 or higher. Preference will be given to those with the greatest financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Four scholarships of $1,600 were awarded for 2007-2008.

Brian E. Dyk Memorial Scholarship This scholarship was established to honor and remember Brian Dyk who taught at Grand Rapids West Side Christian Middle School. Even though the number of years that he taught were few, he touched many lives not only in what he taught but in the way he lived. He loved the intricacies and the beauty of science, and encouraged his students to see the Creator all around them. It is hoped that this scholarship will encourage others to choose education as a major and in so doing inspire students to see God in all of creation. Candidates are students entering their first year at Calvin who are planning to major in education. First preference is given to graduates of West Side Christian School (Grand Rapids, MI). Second preference is given to graduates of one of the following Christian High Schools: Calvin Christian (Grandville, MI), Central Wisconsin Christian (Waupun, WI), Grand Rapids Christian (Grand Rapids, MI), Holland Christian (Holland, MI), Kalamazoo Christian (Kalamazoo, MI), Unity Christian (Hudsonville, MI) or Providence Christian (Fremont, MI). There should be some evidence of financial need. To apply, prospective students who are graduates of West Side Christian Middle School should send a letter to the Office of Admissions and Financial Aid describing their qualifications for the scholarship by February 1. This scholarship is not renewable. One scholarship of $1,800 was awarded for 2007-2008.

Beulah B. Goodenough Memorial Scholarship This scholarship was established by Mr. John and Mrs. Mary Gideon in memory of Mary's mother, Mrs. Beulah Goodenough, who was a first grade teacher in the New Jersey Public Schools for over thirty-five years. It is their belief, as public school educators, that the public schools in our country need the influence of committed Christian teachers and students if our society is going to make a positive change. Candidates are Calvin students entering their senior year who are pursuing a program in Elementary Education. They must be committed Christians planning to teach in public schools, with preference given to students who themselves have attended a public school. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply, use the Upper-class Named Scholarship Application available through KnightVision in January. This scholarship is not renewable. One scholarship of $1,900 was awarded for 2007-2008.

Marsha Greenwood Memorial Scholarship Marsha Greenwood's two children are graduates of Calvin with degrees in Business and Education. Mrs. Greenwood desired that a bequest from her estate be used to establish a scholarship for Education and Economics and Business majors. This scholarship alternates on an annual basis between Education

majors and Economics and Business majors. Candidates are Calvin students entering their junior or senior year who are pursuing a career in education or business (Post BA is allowable for education students). They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply, use the Upperclass Named Scholarship Application available through KnightVision in January. This scholarship is not renewable. One scholarship of $2,000 was awarded to an education major in 2007-2008.

Arthur J. and Laura Jean Gritter Family Scholarship The Gritter Family's feelings about persons with special needs come from living with members of their own family, now passed, who lived with Down Syndrome and Duchene's Muscular Dystrophy and who participated in special education programs. Their presence influenced attitudes about financial support and career choices. Two generations of family members work in health care, mental health, and special education. Candidates are Calvin students entering their junior or senior year who are majoring in Special Education, with preference given to students whose character development has been influenced through his or her own disability and a strong record of volunteerism or participation in athletics (either intramurals or a college team). They must have a grade point average of 2.50 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $2,300 was awarded for 2007-2008.

Mae Groeneveld Scholarship Mae Groeneveld believes that her education at Calvin, along with the support and guidance of her family and church, were the reasons she was successful as a teacher, as a citizen, and as a Christian. Mae was born in Grand Rapids, Michigan, and attended public elementary and high schools there. After graduating from Calvin in 1936, Mae, who retired in 1979, spent the last thirty-five years of her teaching career in the North Muskegon school district, teaching primarily at the middle school level. She established this scholarship to benefit needy, ambitious, and bright students in the fields of elementary and middle school education, with a preference for students from western Michigan. Candidates are Calvin students entering any class level at Calvin who are pursuing a degree in Elementary or Middle School Education. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply, use the Upper-class Named Scholarship Application available through KnightVision in January. This scholarship is automatically renewable if a cumulative grade point average of 3.00 or higher is maintained. Six scholarships of $1,700 were awarded for 2007-2008.

Honderd Family Special Education Scholarship This scholarship was established by the Ralph and Carol Honderd family in honor of their daughter and sister, Karyn, who has cognitive impairments. Karyn's life has been enriched by the dedicated work of her teachers and the family would like to acknowledge this by assisting students who are in the special education program at Calvin. Candidates are Calvin students entering their junior or senior year who are majoring in Special Education, with preference given to students who have participated in a Friendship Ministries class at a church, Special Olympics, or similar activities. They must have a cumulative grade point average of 2.75 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $2,300 was awarded for 2007-2008.

David and Shirley Hubers Scholarship David and Shirley Hubers have a long-standing commitment to Christian education. This was passed on to daughters, Stephanie, who graduated with a BA in education and Lisa, who graduated with a BS in Nursing. This scholarship was established in their honor to help students entering the teaching and nursing professions. Candidates are Calvin students entering their junior or senior

year who are pursuing a program in nursing or education. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. If these criteria are met, selection will be based on the student's academic record, degree of financial need, and potential for Christian service in nursing or education. To apply, use the Upper-class Named Scholarship Application available through KnightVision in January. This scholarship is not renewable. Three scholarships of $2,200 were awarded for 2007-2008.

Mary Louise Huizenga Scholarship This scholarship was established by the children of John S. and Anne Huizenga to honor their sister, Mary Louise Huizenga, who was born with Down's Syndrome. Mary received much love, generous support and educational assistance from many kind and loving educators during her life time. In recognition of their contributions to Mary's life, the family would like to assist students who have chosen to pursue a master's degree in Special Education at Calvin. Candidates are Calvin students who are professing Christian teachers committed to furthering their education in the field of Special Education for graduate credit. Preference is given to persons desiring to be employed in a special education program in the school setting or to those needing additional training in special education. Current employment in either a special education school or a regular education setting is acceptable. Persons employed in a Christian Learning Center network will be encouraged to apply. Financial need may be considered. To apply, contact the Education Department/Graduate Programs Office. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $1,700 was awarded in 2007-2008.

Paul W. Johnson Education Scholarship With great respect for her father, Becky and her husband, Bob VanNoord, established this scholarship for education students planning a major or minor in English or Language Arts. Candidates are Calvin students entering their junior or senior year who are majoring in the Education program, with preference given to students planning to pursue a career teaching English or Language Arts at either the elementary or secondary level. They must have a grade point average of 2.50 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $1,500 was awarded for 2007-2008.

Corrine E. Kass Graduate Studies Scholarship This scholarship was established for the purpose of assisting experienced teachers to return to full or part-time education in one of the Master of Education programs at Calvin. Candidates must, in addition to fulfilling requirements for admission to the graduate programs, have an undergraduate grade point average of 3.30, be committed to leadership responsibilities in the education profession, demonstrate financial need, and be enrolled for graduate credit in a minimum of one to two courses per semester. Apply through the Office of Graduate Studies. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Each year $2,500 or more is available, with individual amounts depending on the number of qualified candidates.

Gerald L. Klein Memorial Scholarship Mrs. Beatrice Klein established this scholarship in memory of her late husband, Gerald L. Klein, a strong supporter of Calvin during his lifetime, out of thankfulness to God and in appreciation of what Calvin has meant to their children and grandchildren. Three of the Kleins' children have graduated from Calvin in the field of education. Candidates are Calvin students entering their junior or senior year who are pursuing a program in elementary or secondary education, including special education. Preference is given to applicants who demonstrate Christian character and concern for others through active involvement in church and community activities. They must have a cumulative grade point average of 2.75 or higher and demonstrate some evidence of financial need.

To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Two scholarships in the amount of $1,500 were awarded for 2007-2008.

John A. Kuiper Family Scholarship This scholarship was established by Mrs. Vivian J. Kuiper and her family in memory of their husband and father, Mr. John A. Kuiper. Mr. Kuiper was a Chicago businessman who was deeply committed to Christian education. He served on the School Board of the Roseland Christian School in the Chicago, Illinois, area numerous times because he believed in the value of providing a Christ-centered education, not only for his own four children, but also for others in the broader Christian community on the south side of Chicago. He served faithfully and diligently on the School Board as one expression of gratitude to his loving Savior. His wife, Vivian, formerly a teacher at Roseland Christian School, shared his enthusiasm for Christian education. Candidates are Calvin students entering their junior or senior year or who are post-baccalaureate students (fifth year seniors are eligible as well as seniors who are in their fourth year). They must be pursuing a program in education and demonstrate Christian character and concern for others through active involvement in church and community activities. Preference is given to students planning to pursue a career in a Christian school in an urban setting. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Two scholarships of $1,350 were awarded for 2007-2008.

Hazel Lawson Teacher Education Scholarship Mr. Hanford Lawson established this scholarship in honor of his wife, Hazel, a dedicated wife, mother, and volunteer. Since Hazel truly enjoyed teaching young children, this scholarship is awarded to students who have an interest in early childhood education and who can articulate a dependence on the Lord and his guidance according to Proverbs 3:6, "In all your ways acknowledge Him and He will make your paths straight." Candidates are Calvin students entering their junior or senior year (fifth year students or those returning for an Education degree or Teaching Certification are also eligible). They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply, use the Upper-class Named Scholarship Application available through KnightVision in January. This scholarship is automatically renewable if a grade point average of 3.00 of higher is maintained. One scholarship of $2,000 was awarded for 2007-2008.

J.C. Lobbes Scholarship Mr. J. C. Lobbes served as a teacher and administrator in Christian schools for 54 years. He served in schools in Edgerton, Minnesota and Rock Valley, Iowa. This scholarship was established in his honor to help students who are entering the teaching profession. Candidates are Calvin students entering their junior or senior year in the teacher education program. They must have a cumulative Calvin grade point average of 3.00 or higher and demonstrate some evidence of financial need. Preference will be given to descendants of Mr. Lobbes' former students when they identify themselves on the application form. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Two scholarships of $1,400 were awarded for 2007-2008.

Arthur and Kathryn Mervenne Education Scholarship Mrs. Laurie Hekman established this scholarship in honor of her parents, Arthur and Kathryn Mervenne. Mrs. Hekman wishes to specifically support students pursuing an education degree because of the important influence of Christian teachers on the lives of young people. Candidates are Calvin students entering their junior or senior year who are pursuing an education degree. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need.

To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Four scholarships of $3,200 were awarded for 2007-2008.

MJB Educational Scholarship The MJB Educational Scholarship was established to give financial assistance and encouragement to Calvin students entering the field of education. The Bruins family has been life long supporters of Christian education at many levels and wishes to share their blessings with students who demonstrate a Christian character and concern for others through their active involvement in church and community. Candidates are Calvin students entering their junior or senior year who are pursuing a career in teaching. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Two scholarships of $1,300 were awarded for 2007-2008.

Jay and Lois Mol Family Scholarship Mr. Jacob "Jay" and Mrs. Lois Mol established this scholarship to help in the training of education students at Calvin who intend to become career teachers in Christian elementary and secondary schools. Candidates are Calvin students entering their junior or senior year who are pursuing a program in education, with first consideration given to those planning to pursue a career in Christian education. A cumulative grade point average of 3.00 is required, but candidates with lower grade point averages may be considered in special circumstances. Preference is given to students who have worked hard, volunteered and been involved in extracurricular activities. There should be some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $2,500 was awarded for 2007-2008.

Patti J. Morren Memorial Scholarship This scholarship was established by Mr. Jay and Mrs. Kathleen Morren of Grand Rapids, Michigan, in memory of their daughter, Patti, who was mentally impaired and passed away at the age of twenty-nine. The Morrens greatly appreciated the amount of love and compassion that was shown to Patti by her special education teachers. They want to assist students who are qualified to work with children with disabilities. They also set up this scholarship to allow students to experience college life, something their daughter, Patti, could never do. Candidates are Calvin students entering their junior or senior year who are pursuing a program in special education. They must exhibit the kinds of qualities such as compassion, love, and caregiving that are essential in working with children who have disabilities. They must also have a cumulative Calvin grade point average of 3.00 or higher. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Three scholarships of $2,200 were awarded for 2007-2008.

Jacob and Jeannette Nyenhuis Scholarship Gordon and Cathy VanderBrug and their family established this scholarship in recognition of Jacob and Jeannette Nyenhuis' long-term commitment to Christian Education. This was demonstrated by their support of Christian education for all six of their children from kindergarten through Calvin College. The scholarship is awarded to students with a passion for teaching. Candidates are Calvin students in the Education program who are entering their junior or senior year and who have an interest in teaching at the middle or upper school levels in their field of interest. They must have a grade point average of 3.00 or higher. Financial need is not required. To apply, use the Upper-class Named Scholarship Application available through KnightVision in January. This scholarship is not renewable. One scholarship of $2,400 was awarded for 2007-2008.

Kenneth and Katherine Olthoff Family Scholarship Mr. and Mrs. Olthoff have

been impressed and gratified with the accomplishments that specially trained elementary school and secondary school teachers have had with children coping with learning differences. Consequently, they would like to encourage and assist Calvin students who are interested in special education, whether they intend to teach in a Christian or a public school. It is their belief that the Christian commitment and love instilled in future teachers at Calvin will be evident in the special manner in which children with special needs are taught and encouraged to reach their full potential. Candidates are Calvin students entering their junior or senior year who are pursuing a program in special education. They must have a cumulative grade point average of 3.00 or higher and be highly motivated and deeply committed to the field of special education as demonstrated by class work and extra-curricular activities. Preference may be given to those with financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Two scholarships of $2,100 were awarded for 2007-2008.

Bernard and Jane Pekelder Special Education Scholarship Jane and Bernard Pekelder have had a lengthy and loyal relationship with Calvin. Jane graduated from Calvin in the field of education and Bernard has degrees from both Calvin College and Calvin Seminary. For many years he served as College Chaplain and later as Vice President for Student Affairs. All five of their children are Calvin alumni. The Pekelders have been life-long supporters of Christian education at many levels. Jane and Bernard now wish to share their blessings with Calvin special education students who dedicate their lives to teaching children or young people with disabilities. Their hope is that scholarship recipients will help students discover the distinctive gifts they have been given by God. Candidates are Calvin students entering their junior or senior year. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Four scholarships of $1,700 were awarded for 2007-2008.

Elizabeth (Betty) Ribbens Memorial Scholarship In grateful response to the Lord's blessings, this scholarship was established in memory of Elizabeth Ribbens by her children. Mrs. Ribbens was an alumnus of Calvin and served as an elementary teacher in the Holland Christian Schools for twenty-three years. Candidates are Calvin students entering their junior or senior year who are pursuing a major in Elementary Education. Special consideration is given to students from Bethany Christian Reformed Church in Holland, Michigan or to descendants of Mrs. Ribbens former students. It is the responsibility of the student to communicate this information on the application. If there are no such candidates, then consideration will be given to students coming from either Ottawa or Allegan counties. There should be some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $1,500 was awarded for 2007-2008.

Pauline Roskam Memorial Scholarship This scholarship was established by Mr. Donald Roskam in honor of his late wife, Pauline, who was a loving, compassionate mother and an inspiration to all who knew her. Candidates are Calvin students entering their junior or senior year who are pursuing a program in education, including special education, and planning to teach at the elementary or secondary level. They must possess Christian character and concern for others as demonstrated by active involvement in volunteer activities in prior years. They must also have a cumulative Calvin grade point average of 3.30 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates.

Three scholarships of $1,500 were awarded for 2007-2008.

Schneider Education Scholarship Mr. Lee and Mrs. Catherine (Kay) Schneider established this scholarship to provide assistance to worthy students who are pursuing a career in education. Both Lee and Kay Schneider graduated from Calvin. Lee taught for thirty-four years in Christian schools, while Kay taught in public and Christian schools for many years. This scholarship also honors Catherine's mother, Agnes Folkema Wybenga, who attended Calvin's Preparatory Program from 1907-1909 and taught at Christian schools in the early 1900's. Candidates are Calvin students entering their junior or senior year who are pursuing a career in K-12 education, with preference given to students interested in teaching in Christian schools. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $1,000 was awarded in 2007-2008.

Schultze-Weemhoff Family Christian Education Scholarship This scholarship was established due to a longstanding family tradition of supporting and believing in the importance of Christian Education. Candidates are Calvin students entering their junior or senior year who are pursuing a career in Teaching—specifically in a Christian school. The recipient should be familiar with the history and philosophy of Christian Education and be strongly committed to Christian Education in the future. They must have a grade point average of 3.00 or higher. To apply or re-apply, use the Upperclass Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $2,500 was awarded for 2007-2008.

Marion and Nella Snapper Family Scholarship Dr. Marion Snapper, a professor in the Education Department, made a significant impact on many future teachers with his knowledge, humor, and dedication to the teaching profession. He later taught at Calvin Theological Seminary in the field of church education. Mrs. Nella Snapper taught in Christian and public schools for many years. Dr. and Mrs. Snapper are Calvin graduates, and Mrs. Snapper was the recipient of the Calvin Distinguished Alumni Award for her impact on the lives of so many elementary children and her assistance to numerous student teachers. This scholarship is to help worthy students pursue careers in education. Candidates are Calvin students entering their senior year who are pursuing a degree in elementary or secondary education. They must demonstrate a deep desire to work with children and be able to express clearly their reasons for wanting to teach. First preference is given to students from the State of Washington. They must have a grade point average of 3.00 (with no preference to higher grade point averages) and demonstrate some evidence of financial need. To apply, use the Upper-class Named Scholarship Application available through KnightVision in January. This scholarship is not renewable. Two scholarships of $1,800 were awarded for 2007-2008.

Angeline Nydam Spoelhof Memorial Scholarship Former President of Calvin College, Dr. William Spoelhof, and the Spoelhof family and friends, established a scholarship to honor Mrs. Spoelhof, for her supportive contributions as the wife of the college president during the transitional period of Calvin's relocation and rapid development. In recognition of her career as a Christian school teacher and her work in church, college, and community causes, the scholarship is to be awarded to students pursuing a program in education, including special education, and planning to teach at the elementary or secondary level. Candidates are Calvin students entering their junior or senior year who possess Christian character and concern for others as demonstrated by active involvement in volunteer activities in prior years. They must have a cumulative grade point average of 3.30 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration

with other candidates. Two scholarships of $2,500 were awarded for 2007-2008.

John L. and Carolyn J. Steen Education Scholarship John and Carolyn Steen are deeply committed to a Christ-centered education at all levels. The family have a long history of involvement with Christian education and with Calvin. John's father (John Steen Sr.) and Carolyn's parents (Martin and Alice Bielema) graduated from Calvin in 1925. Carolyn also attended Calvin. The Steen's three children graduated from Eastern Christian High School in Haledon, New Jersey, and Calvin. John spent many years on the Board of Directors and the education committee of the Eastern Christian Schools. Candidates are students entering their first year at Calvin who are graduates of Eastern Christian (attending for at least grades 7-12), during which they were active members of the Christian Reformed Church. They must be committed to enrolling in the teacher education program and be committed to teaching in a CSI school if at all possible, with strong encouragement to consider Eastern Christian if there are openings available. They must demonstrate that they have been involved in extracurricular activities. They must also have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. Apply through Eastern Christian High School. This scholarship is not renewable. One scholarship of $2,400 was awarded for 2007-2008.

Jan D. and Nancy M. Treur Family Scholarship Jan and Nancy Treur, class of 1963, established this scholarship in gratitude for the excellent Christian education both they and their children received while at Calvin. Jan and Nancy have spent their professional careers working with high-risk inner city young people in the Grand Rapids Public School system. Throughout their careers the importance of a Christian presence and influence in urban, public education became apparent to both of them. This scholarship was additionally established in response to that perceived need. Candidates are Calvin students entering their junior or senior year who are pursuing a Secondary Education major. There should be an interest in public urban secondary education, an interest in reaching "at risk" students, and a strong interest in volunteerism and community involvement. They must have a grade point average of 2.50 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $1,900 was awarded in 2007-2008.

Fred and Carol Van Den Bosch Scholarship Mr. and Mrs. Fred Van Den Bosch of Holland, Michigan, established this scholarship to provide and assist experienced Christian teachers in returning to full or part-time education in the Master of Education Learning Disabilities (LD) program at Calvin in order for them to become more proficient in dealing with classroom students who, in spite of their average or better intelligence, experience difficulty acquiring oral language, reading, writing, and mathematical skills. Candidates are professional Christian teachers who have had previous teaching experience and are committed to continuing in their profession. They must be enrolled for graduate credit in a minimum of two courses per semester. They must also demonstrate financial need. To apply or reapply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration as other candidates. Typically, $6,000 is available each year, with individual amounts depending on the number of qualified candidates and the students' enrollment statuses.

Vander Ark Family Scholarship The Vander Ark family has a long tradition of commitment and service to many professions. Because of their special commitment to education, and the many years of service many of the family members have given to education, the family established this scholarship to further the cause of education among college students and, indirectly, for other students. Candidates are Calvin students entering their junior or senior year who have been accepted into the teacher education program and exhibit sound moral character, a commitment to Christian teaching, and promise of expanding maturity. They must

have a cumulative grade point average of 2.75 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Three scholarships of $1,500 were awarded for 2007-2008.

Vander Haagen Family Scholarship for 5th Year Education Students Mr. Jane and Mrs. David Vander Haagen, Calvin alumni, believe that Calvin-educated teachers contribute greatly to the lives of their students, the quality of their schools, and the character of their communities. The Vander Haagens established this scholarship to encourage students who are completing their academic preparation for this important Kingdom endeavor. Candidates are Calvin students entering their 5th or 6th year or returning as post-BA students pursuing teacher certification in elementary, secondary, or special education. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Three scholarships of $1,500 were awarded for 2007-2008.

Janet D. Van Dyke Education Scholarship This scholarship was established by Mrs. Janet D. Van Dyke, a 1930 graduate of Calvin. Mrs. Van Dyke taught elementary education for thirty-five years in the Grand Rapids Public and Christian schools. She enjoyed teaching younger students and greatly impacted many of their lives. It was her hope and desire that this scholarship will benefit many deserving students who wish to follow in her footsteps and pursue a career in elementary education. Candidates are Calvin students entering their junior or senior year who are pursuing a program in Elementary Education. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Five scholarships of $1,500 were awarded for 2007-2008.

Van Til Family Special Education Scholarship The Sam and Judy Van Til family established this scholarship in honor of their daughter and sister, Jana, who has Downs Syndrome. The family has recognized the important role Jana's teachers have played in her life and would like to support students who are called to be special education teachers. Candidates are Calvin students entering their junior year who are pursuing a Special Education major. They must have a grade point average of 3.30 or higher and demonstrate some evidence of financial need. To apply, use the Upper-class Named Scholarship Application available through KnightVision in January. This scholarship is automatically renewable if the student maintains a cumulative grade point average of 3.30 or higher, remains in the Special Education program and is in good academic standing at Calvin. One scholarship of $2,400 was awarded for 2007-2008.

George J. Van Wesep Memorial Scholarship Mr. and Mrs. Richard De Vos of Ada, Michigan, established this scholarship in honor of Mrs. DeVos's father, Mr. George Van Wesep, who was a teacher and administrator in the public and Christian schools for more than fifty years. Because of Mr. Van Wesep's commitment to education, and to Christian education in particular, the scholarships are awarded to students planning to pursue education as a career. Candidates are Calvin students entering their junior or senior year who are pursuing a program in education. There should be some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Eight scholarships of $2,100 were awarded for 2007-2008.

Lois R. (Post) and Nelson L. Veltman Education Scholarship This scholarship, established by the children of Lois R. (Post) and Nelson L. Veltman, honors their mother Lois' many years of teaching. Mrs. Veltman was a teacher in both elementary and secondary education as

well as in Catechism and Women's Bible Study Groups in the churches where her husband, Nelson, served as pastor. Candidates are Calvin students entering their junior or senior year who are pursuing a program in Education and planning to teach at the junior high or middle school level. They must possess Christian character and concern for others as demonstrated by active involvement in volunteer activities in prior years. They must also have a grade point average of 2.50 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $1,000 was awarded for 2007-2008.

Betty Vredevoogd Memorial Scholarship Betty Vredevoogd graduated from Calvin in 1941 with a degree in education, followed by a master's degree in special education from the University of Michigan. She devoted her life to teaching, faithfully serving for many years at Children's Retreat, a Grand Rapids area educational facility for mentally challenged children. Betty passed away in 1999, but through this scholarship, a new generation of special education teachers will be encouraged to excel in their chosen profession, just as she did. Candidates are Calvin students entering their junior or senior year who are pursuing a degree in Special Education and who demonstrate excellent Christian character, superior motivation, and top academic work. They must have a grade point average of 3.20 or higher. To apply, use the Upper-class Named Scholarship Application available through KnightVision in January. This scholarship is automatically renewable if a cumulative grade point average of 3.20 or higher is maintained. Two scholarships totaling $2,000 were awarded for 2007-2008.

John and Theresa B. Wierenga Family Scholarship The children of Mr. John and Mrs. Theresa Boes Wierenga established this scholarship to honor their parents because of their life long interest in learning in all areas of God's creation. Although they never had the opportunity to go to college themselves, they attended the school of life and appreciated the knowledge shared with them by others through reading, auditing classes at Calvin and attending classes at church. This scholarship was established to encourage and enable promising students to uphold and share through teaching the Christian world and life view so personified by John and Theresa Boes Wierenga. It is the hope of the children that lessons learned at Calvin will help each student not only in a career but also through a lifetime of service to God. Candidates are Calvin students entering their junior or senior year who are education majors intending to teach in the sciences. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $1,300 was awarded for 2007-2008.

Engineering Department

A.M.D.G. Scholarship A.M.D.G. Architects, Inc. of Grand Rapids, Michigan, established this scholarship in an attempt to assist promising students in the field of architecture. More specifically, this scholarship is an attempt to continue the diversification of both Calvin and the architecture field. The goal of this scholarship is to encourage women and minorities to consider architecture as a profession. In light of this goal, preference is given to ethnic minority or international students, women, and/or non-Christian Reformed Church members. Candidates are Calvin students entering their sophomore, junior, or senior year who are enrolled in the Pre-Architecture program and who have already taken Engineering 103 (or its equivalent). To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Selection will be made by the Engineering Department and the Department of Art and Art History. Current recipients will be given equal consideration with other candidates. One scholarship of $1,400 was awarded in 2007-2008.

Bosscher Family Interim Scholarship Jim and Ange Bosscher established this scholarship to assist needy students who desire to experience an off-campus interim at Calvin. Candidates must demonstrate that the interim course is directly related and beneficial to the program/major in which they are currently enrolled and that assistance is needed to meet interim expenses. Special consideration will be given to North American ethnic minority students. Financial need is required. Apply through the Engineering Department. Students who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Four scholarships of $600 will be awarded for 2007-2008.

James Bosscher Engineering Scholarship Former students and friends of Dr. James Bosscher have generously funded a scholarship in his name. Candidates are engineering students entering their first year at Calvin who demonstrate outstanding academic achievement and potential. The award for the first year is contingent on enrollment in a typical engineering program at Calvin. Scholarships are renewable for the sophomore year in the engineering program based on the first year's college performance, including the achievement of at least a 2.30 grade point average. To be considered for this scholarship, students need to apply for admission to Calvin by February 1. Please indicate engineering as your primary interest. Four scholarships of $2,000 were awarded for 2007-2008.

Bultema Family Engineering Scholarship The Bultema family would like to fund an engineering scholarship for female students because of their interest in seeing more females pursue engineering as a career. The Bultemas are a diverse family with six children, the oldest son working in China, a son and a daughter currently attending Calvin, and two daughters who were born in China. Their daughter, Brianna, is studying engineering at Calvin and the family seeks to encourage more women to follow that path. Candidates are Calvin students entering their sophomore, junior, or senior year who are interested in majoring in Engineering, with first preference given to female candidates. They must have a grade point average of 2.80 or higher and demonstrate some evidence of financial need. To apply, use the Upper-class Named Scholarship Application available through KnightVision in January. This scholarship is automatically renewable if the student continues to pursue a degree in Engineering and has a cumulative grade point average of 2.80 or higher. One scholarship of $2,500 was awarded for 2007-2008.

C.J. Byeman Memorial Scholarship This scholarship was established by Jack and Mary Ann Byeman in gratitude to their Lord for the role that Calvin has played in the lives of two generations of family members. Jack and Mary Ann have been extremely blessed and they wish to share, in a small way, with students who are in situations similar to theirs in prior years. Candidates are Calvin students entering their junior or senior year who are majoring in Engineering or Business (including Economics). They must be a resident of one of the following states: Washington, Idaho, Oregon, Montana, or Alaska. They must have a grade point average of 3.00 or higher and demonstrate a love for God and a willingness to serve others. Financial need is not required. To apply, use the Upper-class Named Scholarship Application available through KnightVision in January. This scholarship is not renewable. One scholarship of $3,500 was awarded for 2007-2008.

Calvin Engineering Scholarship The Kamstra family established this scholarship in honor of the late Gordon Kamstra. Mr. Kamstra was a Christian businessman and was president of Quality Air Heating and Cooling, Inc. in Grand Rapids, Michigan. Candidates are Calvin students entering their junior year who are students in the B.S.E. program in Engineering. Personal integrity and level of interest and activity in the Engineering Program may also be considered. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other

candidates. One scholarship of $1,300 was awarded for 2007-2008.

Calvin Junior Engineering Scholarship This scholarship was established by the Calvin Engineering Advisory Council to assist full-time engineering students entering their junior year of the B.S.E. program. A cumulative grade point average of 3.00 or higher is expected and a full year of prior study at Calvin is required. They must show a high level of personal integrity and leadership and demonstrate some evidence of financial need. To apply, use the Upper-class Named Scholarship Application available through KnightVision in January. This scholarship is not renewable.

Joseph and Deanne Daverman Family Scholarship Joseph and Deanne Daverman have been lifetime supporters of Christian education. Joe, three daughters, and eight grandchildren all attended Calvin. In other ways, Joe and Deanne have strongly supported Calvin throughout their lives. As a member of the Long-Range Planning Committee, Joe was part of the decision that moved Calvin to the Knollcrest campus. As an architect, Joe also participated in the design of several buildings on campus. In 1974, Joe was presented with the Distinguished Alumni Award. This scholarship was established in an attempt to help others achieve the same Christ-centered college education that has played such an important role in the life of the Daverman family. Candidates are Calvin students entering their sophomore, junior, or senior year who are enrolled in a pre-architecture or engineering program. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given preference for renewal provided they still demonstrate need and have a cumulative grade point average of 3.00 or higher. Five scholarships of $2,800 were awarded for 2007-2008.

Brian L. DeWall Memorial Scholarship Mr. Gordon and Mrs. Joan DeWall of Fruitport, Michigan, established this scholarship in memory of their son, Brian, who was tragically killed in an automobile accident during his senior year at Calvin. Candidates are Calvin students entering their senior year in the Mechanical Engineering Program. They must live life with a positive attitude and a good sense of humor, demonstrate Christian character, and demonstrate the potential to make a positive impact in their work both professionally and as a Christian. They must have a grade point average of 2.80 or higher. To apply, use the Upper-class Named Scholarship Application available through KnightVision in January. This scholarship is not renewable. One scholarship of $2,600 was awarded for 2007-2008.

Jack and Eleanor Elenbaas Family Engineering Scholarship Mr. Jack and Mrs. Eleanor Elenbaas established this scholarship to support students at Calvin. A number of Elenbaas family members are engineers and it is their desire that the scholarship be awarded to engineering students. Candidates are Calvin students entering their junior or senior year who are pursuing a degree in engineering. They must have a grade point average of 3.20 or higher and demonstrate some evidence of financial need. To apply, use the Upper-class Named Scholarship Application available through KnightVision in January. This scholarship is for one year only. Current recipients will be given equal consideration with other candidates. Three scholarships of $3,000 were awarded for 2007-2008.

Bruce and Alice Klanderman Scholarship This scholarship was established by Bruce and Alice Klanderman to recognize scholarship, hard work, and a disciplined approach to study by a Chemistry, Biochemistry, or Chemical Engineering major, with preference given to a student who plans to attend graduate school. Bruce, class of 1959, majored in Chemistry at Calvin, and Alice, class of 1958, majored in Education. Bruce went on to earn his M.S. and Ph.D. in Chemistry from the University of Illinois before going to work in chemistry research and environmental technology management for the Eastman Kodak Company in Rochester, New York. Candidates are Calvin students entering their junior or senior year who are pursuing a Chemistry, Biochemistry, or a Chemical Engineering major. They

must have a grade point average of 3.80 or higher, which recognizes achievement in all courses of study. Financial need is not required. Applications available from the Science Division office in mid February. To apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $2,000 was awarded for 2007-2008.

Francis and Trena Lieuwen Scholarship This scholarship was established by Tim and Rinda Lieuwen in honor of their parents, Francis and Trena Lieuwen. Both parents and six of their children have attended Calvin. The Lieuwens established this scholarship to encourage engineering students with financial need who have demonstrated service to others through volunteering or who are interested in working for a domestic or international mission agency. Candidates are Calvin students entering their junior year who are majoring in Engineering, with preference given to students who have a history of and ongoing interest in serving others through volunteering and/or through missions. They must have a grade point average of 2.60 or higher and demonstrate some evidence of financial need. To apply, use the Upper-class Named Scholarship Application available through KnightVision in January. This scholarship is automatically renewable if the student continues in the Engineering program and maintains a cumulative grade point average of 2.60 or higher. One scholarship of $1,600 was awarded for 2007-2008.

Paul W. Newhof Memorial Scholarship This scholarship was established in memory of Paul W. Newhof who was a practical man of great faith who would never turn down a request to serve the Lord with his civil and structural engineering expertise. Mr. Newhof was involved in several mission projects and was also interested in helping missionaries by using his engineering skills. He was especially interested in getting clean water to African missions and providing tools, such as an oil seed press, which would enhance the ability of natives to provide for their families. Paul Newhof was a principal in Newhof and Winer, a company he started. He was a founder of Grand Rapids Testing Service. Candidates are Calvin students entering their junior or senior year who are in the Civil Engineering program, with first preference given to a child of a missionary and second preference given to an engineering student with some interest in using their education to support mission work. They must have a grade point average of 2.50 or higher and demonstrate some evidence of financial need. To apply, use the Upper-class Named Scholarship Application available through KnightVision in January. For recipients who received this scholarship their junior year, this scholarship is automatically renewable for their senior year if they continue to meet eligibility requirements. Two scholarships of $1,600 were awarded for 2007-2008.

Pfizer Scholarship The Pfizer Scholarship is funded by the Pfizer Corporation, which is a leading international developer, manufacturer, and marketer of pharmaceutical products. The purpose of this scholarship is to attract, encourage, and support students interested in pursuing careers in the chemical sciences by giving them financial support, academic recognition, and connections to a major pharmaceutical company. Candidates are Calvin students entering their junior or senior year who are majoring in Chemistry, Biochemistry, or Chemical Engineering. They must have an academic advisor from their major department and have an established record of enthusiasm for and involvement in the ongoing work of their major department. They must have a cumulative grade point average of 3.30 or higher. Financial need is not required. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Five scholarships of $4,000 were awarded for 2007-2008.

Robert J. Reimink/Prein and Newhof Scholarship This scholarship was established by the engineering firm of Prein and Newhof of Grand Rapids, Michigan, as a memorial to Robert J. Reimink, a Calvin alumnus and a key engineer at the firm, who died of cancer in 1994 at the age of thirty-eight. Can-

didates are Calvin students entering their junior or senior year who are pursuing a program in Civil Engineering. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Two scholarships of $2,000 were awarded for 2007-2008.

Charles and Kay Spoelhof Engineering Scholarship Dr. Charles Spoelhof served as an engineer with the Eastman Kodak Company for thirty-two years. During the height of the Cold War, he was part of a small group of experts that helped develop the highly sophisticated camera technology used in spy satellites. Later, he worked with NASA to develop the techniques of lunar photography that identified appropriate landing sites for the Apollo missions. He also served on the blue ribbon commission to fix the Hubble Space Telescope. For many years Mr. Charles Spoelhof has served and supported the Engineering Department as an Industrial Mentor, a Chemical Engineering Advisory Committee (CEAC) Member, a seminar speaker, an interim course instructor, and a true friend. He and his wife, Kay, established this scholarship to continue their support of the engineering program at Calvin—particularly to help prepare engineering students to participate in the global economy. Candidates are Calvin students entering their junior or senior year who are majoring in Engineering, with preference given to an engineering student involved in some type of international activity (international internship, international engineering study program abroad, etc.). They must have a grade point average of 2.70 or higher and be in good standing in the Engineering Department. There should be some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $1,100 was awarded for 2007-2008.

Anthony VanderLugt Memorial Engineering Scholarship Mr. Anthony VanderLugt earned his BS in 1959 at Calvin and the University of Michigan as part of Calvin's 3+2 program in engineering. He ultimately earned a doctorate in Applied Physics and at his death was a Professor Emeritus of Electrical Engineering at North Carolina State University. He came to Calvin from a farm family in rural Michigan. While at Calvin, he learned that he had academic potential, that he could compete with other students, and that there was a world out there where he could apply his talents. This scholarship was established to honor his memory and to help other students like him who are searching for a way to use their talents in engineering. Candidates are Calvin students entering their junior or senior year who are pursuing a degree in Engineering, with preference given to first generation college students. They must have a grade point average of 3.20 or higher and demonstrate some evidence of financial need. To apply, use the Upper-class Named Scholarship Application available through KnightVision in January. This scholarship is automatically renewable for one year if a cumulative grade point average of 3.20 or higher is maintained. One scholarship of $2,400 was awarded for 2007-2008.

English Department

Winifred Holkeboer Memorial Scholarship This scholarship was established as a tribute to Winifred Holkeboer, who, through her many years of service to the English Department and Calvin, engaged students in the study of language and literature. Candidates are Calvin students entering their junior or senior year who are pursuing an English major and who demonstrate academic excellence, commitment to the major, and potential for leadership within the major. They must have a grade point average of 3.00 or higher. Financial need is not required. Selection is based on academic record, participation in the activities of the department, and a brief statement of the applicant's reasons for choosing English as a major. Application available from the English Department. Current recipients who wish to be considered for renewal must file a new application each

year and will be given equal consideration with other candidates. One scholarship of $2,400 was awarded for 2007-2008.

Kenneth and Lillian Kuiper Scholarship This scholarship was established by family and friends of Dr. Kenneth Kuiper and his wife Lillian to honor the many years of service and commitment to Christian education they have given so generously. Dr. Kuiper taught in the English Department at South Christian High School in Grand Rapids, Michigan, and then served with distinction in the Calvin English Department for thirty-seven years, encouraging students and mentoring faculty. Lillian taught for seven years in grades three through twelve and later ran the student teacher placement program in the Calvin Education Department for ten years. All five of their children have graduated from Calvin. Their son, George, a dedicated employee of the college, took the lead role in initiating this project to honor his parents. In recognition of the Kuipers' high regard for the classroom teacher, this scholarship will be awarded to Calvin students entering their senior year who are pursuing a program in secondary education with a major in English. They must show great promise of making a significant contribution as an English teacher in secondary education. They must also have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. Application available from the English Department. This scholarship is not renewable. One scholarship of $3,200 was awarded for 2007-2008.

Dr. Charlotte Otten Scholarship This scholarship reflects Charlotte F. Otten's interests in writing and research during her teaching years at Calvin. The scholarship is designed to encourage writers to consider a career in writing. Candidates are Calvin students entering their junior or senior year as English majors who show promise as writers of poetry, fiction, or non-fiction, and/or who are considering a career in Renaissance studies, women's studies, or children's literature. Selection is based on writing samples, academic record (3.00 grade point average or higher), and a statement of the applicant's career goals. Application available from the English Department. This scholarship is renewable if the recipient continues to meet these requirements and remains in good standing in the major. There were no awards for 2007-2008.

Schemper-Kamp Family Scholarship This scholarship was established as a tribute to Calvin professor John J. Timmerman and his wife, Mrs. Carolyn Hager Timmerman, both of whom had a profound impact on the lives of the donors, Mr. Henry and Mrs. Carol Kamp. The Kamps established this scholarship out of gratitude for what the Timmermans have done for them and in recognition of what Dr. and Mrs. Timmerman have done for Calvin and many of its students. Candidates are Calvin students entering their junior or senior year who are majoring in English and who demonstrate Christian perspective in their writing. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. Application available from the English Department. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $2,400 was awarded for 2007-2008.

Henrietta Ten Harmsel English Scholarship Henrietta Ten Harmsel established this scholarship for promising English majors. Dr. Ten Harmsel served the English Department for twenty-seven years, both as a beloved teacher and as departmental chair. This scholarship is awarded to English majors because Dr. Ten Harmsel believes English is a crucial element of the liberal arts education, because it prepares students for a wide range of professions, and because it enables them to verbalize their Christian faith in an articulate, forceful, and humane way. Candidates are Calvin students entering their sophomore or junior year who are pursuing an English degree. They must be enthusiastic readers and writers and must recognize a close relationship between literature and faith. They must also have a grade point average of 3.00 or higher. Financial need is not required. Application available from the English Department. Current recipients who wish to be considered for renewal must file a new application each year and

will be given equal consideration with other candidates. One scholarship of $2,200 was awarded for 2007-2008.

Richard R. and Kathleen J. Tiemersma Scholarship This scholarship was established to promote and further the respect for language, the liberal arts, and Calvin and its objectives. Dr. Tiemersma has set up this scholarship in gratitude to Calvin for opportunities he and Kay received to learn from gifted professors, for the joy of working in a satisfying profession, and for deep enrichment of their personal lives. Dr. Tiemersma taught in the English Department for twenty-eight years where he was a respected and beloved professor whose specialty was Victorian literature and a careful attention to use of the English language. Mrs. Tiemersma was an English major and taught in the department for several years. Candidates are Calvin students entering their senior year who are pursuing a degree in English. They must have a grade point average of 3.30 or higher. Financial need is not required. Application available online from the English Department. This scholarship is not renewable. One scholarship of $2,400 was awarded in 2007-2008.

Steve J. and Viola Van Der Weele Scholarship Steve Van Der Weele taught in the Calvin English Department from 1950 to 1986. His family established this scholarship in his honor in the effort to make a Christian education more affordable for students. This scholarship was also established out of a strong sense of gratitude to the Calvin community, the stimulating context in which Steve taught and which nourished him and his family both as a student and as a teacher. Candidates are Calvin students entering their junior or year who are majoring in English Language and Literature. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. Application available from the English Department. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Two scholarships of $2,200 were awarded in 2007-2008.

William E. and Margaret J. Van Wienen Scholarship Mr. William Van Wienen, a noted Grand Rapids architect, and his wife, Margaret, appreciate the contributions of Calvin as a Christian institution that enriches this community. Their daughter and her husband, Marcia and the Rev. Mark Van't Hof, and their son, Dr. Mark Van Wienen, all were English majors and all are graduates of Calvin. Their daughter-in-law, Dr. Anne Windholz, is also an English professor. In appreciation for Calvin and in recognition of their children's love for English language and literature, the Van Wienens established this scholarship to encourage other students majoring in English. Candidates are Calvin students entering their junior year who are pursuing an English major and who have an interest in and are active in community social involvement projects. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. Application available from the English Department. This scholarship is automatically renewable if the student maintains a cumulative grade point average of 3.00 or higher and continues to show interest and be active in community involvement projects. One scholarship of $2,500 was awarded for 2007-2008.

Henry and Mildred Zylstra Memorial Scholarship This scholarship was established by family and friends in honor of Henry Zylstra. In his classes and through his scholarly essays, some of which were published in his book "Testament of Vision", Professor Zylstra helped establish a Reformed Christian critique of culture and literature that continues to exert a formative influence on Calvin and beyond. Mildred Zylstra also taught in the English department for many years. Candidates are Calvin students entering their senior year who are planning to attend graduate school in literature and language within five years following graduation. They must have a grade point average of 3.50 or higher and demonstrate some evidence of financial need. Selection is based on academic ability, commitment to and promise of success in graduate studies, and a concern for the Reformed Christian liberal arts education. Application available from

the English Department. This scholarship is not renewable. One scholarship of $1,700 was awarded for 2007-2008.

Geology, Geography and Environmental Studies Department

Clarence and Irene Menninga Geology Scholarship This scholarship was established to honor Calvin's first geology professor, Dr. Clarence Menninga. Dr. Menninga was hired by Calvin in 1967 for the express purpose of developing a geology program for the college. In the fall of 1968, the first Earth Science course was introduced at Calvin, and the first official geology course "Introduction to Physical Geology" was offered in the spring of 1969. Dr. Menninga's passion and leadership has been key in the development of the major and minor programs in geology at Calvin. His wisdom and integrity in reconciling science and the Bible have been invaluable to both faculty and students. As a profess emeritus, Dr. Menninga continues to speak, teach and write enthusiastically about the compatibility of God's natural and special revelation. Candidates are Calvin students entering their junior or senior year who have a Geology or Environmental Geology major. There should be some evidence of financial need. Application available from the Geology Department. This scholarship is renewable in that a current scholarship recipient is encouraged to apply again in the succeeding year, and is not excluded from the scholarship competition because of having received the award previously. This scholarship may be awarded to provide financial support during the academic year or may be designated to support attendance at a Calvin College geology field methods course, if currently offered. One scholarship of $1,500 was awarded for 2007-2008.

Jerrian (M.D.) and Anna (Terpstra) Van Dellen Geology Scholarship This scholarship was established by Mr. Kenneth J. and Mrs. Pearl Van Dellen in honor of Ken's parents, who introduced him to the Creator and the creation. Ken [B.A., biology, Calvin 1958] began taking geology courses in 1962 and taught geology at Macomb Community College 1965-1999. Candidates are Calvin students entering their junior or senior year who are majoring in geology or environmental geology. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. Application available from the Geology Department. Applications will be assessed by the departmental geologists on the basis of academic potential, leadership ability, Christian character, and financial need. This scholarship is automatically renewable if the student continues to meet the eligibility requirements. Two scholarships of $1,500 were awarded for 2007-2008.

Germanic Languages and Literatures Department

Wallace and Marianne Bratt German Interim Abroad Scholarship For nearly forty years it has been the repeated, grateful witness of both graduates and current students that the German Interim Abroad was one of the most significant educational experiences they had while at Calvin. Recognizing the educational value of the interim, the German department has worked hard to keep the German Interim Abroad affordable for all students. In recent years, however, as the cost of a Calvin education has steadily risen, a significant number of students who would otherwise qualify for participation in the German Interim Abroad have nonetheless been unable to do so for financial reasons. This scholarship has been instituted to help make it possible for worthy students with promise, seriousness of purpose, and demonstrated need to participate in future German Interim Abroad sessions in Germany. Applications available from the Department of Germanic and Asian Languages and Literatures.

Health, Physical Education, Recreation, Dance and Sport Department

Sandra Anne Bos Duyst Memorial Scholarship Mr. Larry and Mrs. Delores Bos established this scholarship in memory of their daughter, Sandra Anne Bos Duyst. Born on December 29, 1959, Sandra was a talented, caring young woman who possessed a strong faith in God and a deep love for her family and friends. She graduated from Calvin in 1982 with a Bachelor of Arts degree. Sandra was a gifted athlete, winning all-city and all-state honors in volleyball when she was a student at Grand

Rapids Christian High School. Later, she was named MVP of her women's volleyball team at Calvin. Sandra's love for volleyball led her to coaching the girls' volleyball team at Grand Rapids Westside Christian School. Most importantly, Sandra was a person of deep religious faith. She was a wonderful mother and mentor for her three children, David, Erica, and Timothy, and was a precious child of her loving Heavenly Father. She left a significant void in this world when her life tragically ended in March 2000. Through this scholarship for physical education and/or recreation majors, Mr. and Mrs. Bos hope that students will use their gifts and talents wisely and well, as Sandra did, to serve others and bring glory to God. Candidates are Calvin students entering their junior or senior year, with preference given to students who demonstrate special gifts and abilities in youth leadership and development. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. Applications available online from the HPERDS Department. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Two scholarships of $2,100 were awarded for 2007-2008.

Huddleston Family Exercise Science Scholarship Mr. Ken and Mrs. Kay Huddleston of Grand Rapids, Michigan, and their daughter, Cheryl, established this scholarship in appreciation for the excellent education Cheryl received at Calvin that prepared her for graduate school and a career in Cardiac Rehabilitation. The purpose of this scholarship is to encourage and support opportunities for academically based learning experiences that will enhance the preparation of those Exercise Science majors who intend to pursue graduate studies. Candidates are Calvin students entering their junior or senior year who are majoring in Exercise Science. They must have completed a minimum of four courses in the major and have a grade point average of 3.30 or higher. They must have the intention and capability of pursuing graduate studies in Exercise Science. Candidates should contact the faculty advisor for Exercise Science to initiate the application process. A $600 stipend is awarded to support a 8-10 hours/week practicum placement with a local rehabilitation agency. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates.

Dr. Barney Steen Scholarship for Physical Education Through the generosity of Gerrit and Agnes Hennink, as well as other friends and former athletes of Barney Steen and Calvin, this scholarship honors Dr. Barney Steen for his many contributions to the Calvin HPERDS Department while serving as department chair, athletic director, professor, and coach. Candidates are Calvin students entering their senior year who are pursuing a major or minor in physical education. They must have a Calvin grade point average of 2.00 or higher. Selection is based on leadership ability, ethical character, academic achievement, ability to articulate a Christian perspective, and service vision. Applications available online from the HPERDS Department. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Two scholarships of $2,400 were awarded for 2007-2008.

David B. Tuuk Sport Management Scholarship During his thirty-six years as a member of the Physical Education Department (1952-1988), Dave Tuuk helped guide the development of the physical education program from a P.E. minor and basic core activity courses into a department that offered a full complement of courses for future physical education teachers, exercise physiologists, coaches and recreators. Dave Tuuk coached many teams at Calvin but he is best known for his coaching of men's cross country and men's track and field. He also demonstrated great strength in administration, which is why he was so successful as the athletics director/facilities manager. Through this scholarship Coach Tuuk wishes to contribute to preparing "agents of renewal" who are educated and called to the field of sport management and athletic administration, bringing to this field a distinctively Christian perspective of justice, honesty, stewardship, and compas-

sion. It is Dave Tuuk's hope that scholarship recipients will actively and effectively address such issues in sport as gender and racial equality, ethical decision-making, legal issues, and competition and that these actions will provide a significant socio-cultural challenge to, and change in our society. Candidates are Calvin students entering their junior or senior year who are pursuing a major in physical education with a declared emphasis in sport management. They must demonstrate Christian character and values, a spirit of servant leadership, and a unique ability to motivate and inspire others towards excellence. They must also have the ability to articulate, verbally and in writing, a Christian perspective on sport management or athletic administration and a personal vision for this vocation. They must demonstrate competence and potential to be successful in this field. Preference will be given to second semester junior students who have completed, or will in the present semester complete, at least six courses in the physical education major including at least two courses in the sport management emphasis and/or cognate. They must have a grade point average of 2.50 or higher and demonstrate some evidence of financial need. Applications available online from the HPERDS Department. Current recipients who wish to be considered for renewal must file a new application every each year and will be given equal consideration with other candidates. One scholarship of $3,100 was awarded for 2007-2008.

A. Donald Vroon Scholarship for Physical Education The family of A. Donald Vroon established this scholarship to honor the life, work and convictions of Professor Don Vroon who died in 2003 after attending, competing, teaching and coaching at Calvin for forty-six years. This scholarship is a memorial to his life and his desire to continue to learn about the saving grace of Jesus Christ. Candidates are Calvin students entering their junior or senior year who are pursuing a major or minor in physical education with an interest in coaching. They must have a grade point average of 2.50 or higher and demonstrate some evidence of financial need. Applications available online from the HPERDS Department. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Two scholarships of $1,350 were awarded for 2007-2008.

History Department

John De Bie History Scholarship This scholarship was established by the family of John De Bie, former professor of history at Calvin, to honor God in gratitude for his full life as a history teacher. He also dreamed of being able to financially encourage individuals who plan to dedicate their lives to teaching history. Candidates are Calvin students entering their junior year who are pursuing a career in education with a History major. They must have a grade point average of 2.75 or higher and demonstrate some evidence of financial need. Apply through the History Department. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $1,100 was awarded for 2007-2008.

Sally and Bert deVries Archeology Scholarship Archeology has been a primary research interest of Bert deVries during his years of service in the Calvin History Department. He was instrumental in setting up the archeology minor, in leading a number of summer excavation trips for students to Jordan and other areas in Palestine, and in building partnerships with Middle Eastern organizations and governments as well as other United States programs that offer field experiences in archeology for undergraduate students. Bert and his wife, Sally, lived in Jordan for a number of years. Candidates are students entering any class level at Calvin who are pursuing an Archeology Minor. The purpose of this scholarship is to defray costs of participating in IDIS 340 at Calvin. First preference is given to field experiences in the Middle East and second preference is given to programs outside of North America. Biblical and Holy Land Studies programs are excluded because they do not fit the definition of Middle East Studies. There should be some evidence of financial need. Apply through the History Department. This scholarship is not renewable. One scholarship of $1,200 was awarded for 2007-2008.

Peter D. Hoekstra Scholarship This scholarship, established by the History Department in honor of one of its founding members, is made possible by gifts received from Dr. Robert G. and Mrs. Kathryn (Schuringa) Andree. Candidates are students entering their first year at Calvin who intend to major in History. They must have an outstanding academic record or exhibit exceptional promise as evidenced by high school grade point average and examples of projects and independent study submitted in the scholarship application. Participation in public contests or exhibitions involving historical study, such as Natural History Day, may also be considered. Apply through the History Department. This scholarship is not renewable. Two scholarships of $2,200 were awarded for 2007-2008.

Earl Strikwerda Memorial Scholarship Memorial contributions from the relatives and friends of Professor Earl Strikwerda have enabled the History Department to honor the memory of their former colleague with annual scholarships. Candidates are Calvin students entering their senior year who are history majors. No separate application is required. This scholarship is not renewable. Two scholarships of $2,300 were awarded for 2007-2008.

Edwin J. and Elaine F. Van Kley History Scholarship This scholarship was established by Elaine Van Kley to encourage young scholars to seek relationships and influences among countries and people of the world, to merge faith and learning in the broadest sense. Since both Ed and Elaine had the privilege of realizing this world and faith view at Calvin as students and staff, forty-six years in all, they are pleased to offer this scholarship to encourage future students to pursue this integration and embrace world knowledge. Candidates are Calvin students entering their junior or senior year who are majoring in History and who desire to study (in order of preference) Asian influences in the west, Asia, or the wider world, its influences and relationships to the west. They must have a grade point average of 3.20 or higher in their history courses. Preference will be given to students with financial need. Apply through the History Department. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $1,300 was awarded for 2007-2008.

Dr. Bernard Zylstra, S.J.D., Memorial Scholarship Mr. Gerrit and Mrs. Carol Zylstra established this scholarship to honor their brother, Dr. Bernard Zylstra, former Professor of Political Theory and President of the Institute for Christian Studies. Bernard Zylstra actively promoted the development of Christian political theory, and this scholarship is intended to encourage students to pursue studies in the development of Christian political theory. Candidates are Calvin students entering their junior or senior year who show evidence of Christian character and promise of growth. They must have a grade point average of 3.00 or higher. Financial need is not required. Applicants must submit a 1,200 word essay that reflects on some article by Bernard Zylstra concerning political theory. They must also provide a statement of potential career goals that indicates some relevance to political theory and of how this scholarship would help accomplish those career goals. Apply through the History Department. This scholarship is not renewable. Three scholarships of $4,000 were awarded for 2007-2008.

Mathematics and Statistics Department

Kenneth E. and Jean Baker Mathematics Scholarship Dr. Kenneth and Mrs. Jean Baker always had a strong interest in Christian education at all levels. This scholarship was established to encourage and honor Calvin students studying mathematics, a field that one of their daughters pursued. Candidates are students entering their first year at Calvin who are pursuing a degree in mathematics as their primary field of study. They must submit a one-page essay detailing their reasons for pursuing a mathematics major, and providing evidence of an excellent, scholastic record in mathematics and involvement in mathematics activities. Application available online from the Mathematics and Statistics Department. This scholarship is not renewable. One scholarship of $1,000 was awarded for 2007-2008.

Dr. Harold H. Johnson Scholarship The Theodore R. and Vivian M. Johnson Scholarship Foundation has provided funds for art and math scholarships in honor of Dr. Harold H. Johnson on the occasion of his retirement. The foundation seeks to enable qualified individuals, who might not be able to do so otherwise, to acquire skills and develop strength which enable them to realize their potential. Candidates are Calvin students entering their junior or senior year who are pursuing a degree in either Art or Mathematics. Financial need is required. Application available online from the Mathematics and Statistics Department. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Four scholarships of $2,500 were awarded for 2007-2008.

Sanford and Marjory Leestma Family Scholarship in Mathematics Professor Sanford Leestma retired from the Calvin Department of Mathematics and Statistics in 2003. His family established this scholarship to honor Professor Leestma's thirty-five years of service to Calvin, the Mathematics Department, and its students. The Leestma family desires this scholarship to encourage and support outstanding students pursuing a career in Mathematics. Candidates are Calvin students entering their junior or senior year who are declared mathematics majors planning a career which is mathematics-based. Selection is based on strong mathematical ability and evidence of involvement with the department. There should be some evidence of financial need. Application available online from the Mathematics and Statistics Department. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $1,800 was awarded for 2007-2008.

Paul J. and Eleanor I. Zwier Family Scholarship The Zwier family, colleagues, and alumni established this scholarship to celebrate the many delightful opportunities that Professor Zwier had in teaching mathematics to Calvin students during his long career at Calvin. Dr. and Mrs. Zwier have appreciated being a part of the Calvin community. In addition, all of their children have attended Calvin. Candidates are Calvin students entering their junior year who are pursuing a mathematics major with the intention of teaching mathematics at the high school or college level, with preference given to those planning to teach at the college level. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. Application available online from the Mathematics and Statistics Department. This scholarship is automatically renewable if the student continues to meet the criteria for this scholarship. Two scholarships of $3,100 were awarded for 2007-2008.

Meeter Center

Hugh and Eve Meeter Calvinism Award Mr. Hugh and Mrs. Eve Meeter established these awards to stimulate interest in and knowledge of the Calvinistic world-and-life view among high school seniors planning to attend the following colleges: Calvin, Dordt, King's (Canada), Redeemer (Canada), Kuyper, and Trinity Christian. Contact the Calvin College Meeter Center for more information. Selection is based on the evaluation of an 8-12 page research paper required for consideration. The deadline for submission of the research papers is January 15 each year. These awards are not renewable. A first prize scholarship of $2,500 and a second prize scholarship of $1,250 were awarded for 2007-2008.

Music Department

Prospective students interested in applying for a Music Department scholarship must audition with the Music Department in early February. Returning students who wish to apply for Music Department scholarships must complete the application available on the Music Department website. Contact the Music Department for more information.

Janice Broekhuizen Music Scholarship Janice Lou (Woldring) Broekhuizen, an alumna of Calvin, graduated with a degree in elementary education. As a student, she participated actively in the Radio, Acapella, and Messiah Choirs. After graduation she continued to use her gifts of voice and pia-

no effectively to honor Jesus Christ in both church and community. This scholarship was established by the family and friends of Mrs. Broekhuizen out of love and respect for her memory. Candidates are Calvin students entering their junior or senior year who have demonstrated superior achievements in Calvin's music activities. They must have a grade point average of 3.10 or higher and demonstrate some evidence of financial need. Students are required to participate in an ensemble during the year the scholarship is used (except for music education students during student teaching). Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Two scholarships of $1,450 were awarded for 2007-2008.

Arlene and Ray Bruggink Music Scholarship This scholarship was established by Arlene and Ray Bruggink who have a continued interest in music at Calvin. They would like to provide financial assistance to qualifying students who are interested in glorifying God through their musical talents. Candidates are Calvin students entering their sophomore year who are music majors or minors (vocalist, organist, or string player). They should have a record of superior achievement in music activities and have given evidence of outstanding talent and musicianship. A vocal recipient will be required to participate in a faculty-directed credit ensemble. A string player will be required to participate in the Calvin Orchestra. The recipient will also be required to take private lessons for credit in the medium for which the scholarship is granted during the year the scholarship is used. Financial need is required. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $2,000 was awarded for 2007-2008.

Henry Bruinsma Family Scholarship This scholarship was established to honor Anna Bruinsma, wife of Henry J. Bruinsma. Anna, class of 1906, was one of the first twelve women to graduate from Calvin when it began offering a three-year teaching degree (1905, 1906). She loved music in all its forms. The scholarship also honors Henry A. Bruinsma, son of Henry J. and Anna, who continued this love of music. He earned the first Ph.D. in music awarded by the University of Michigan. Dr. Bruinsma then became the third member of the Calvin Music Department, teaching multiple classes in music theory and composition and leading the Calvin band and orchestra. He was a professor at Calvin from 1947 to 1955. This scholarship was established by Grace Hekman Bruinsma, wife of Henry A. and Dean of Women at Calvin from 1944-1947. Henry A. and Grace were both highly regarded by faculty, staff, and students. In addition to honoring Henry and Anna, the intent of this scholarship is to provide encouragement to the scholarship recipients. All of the people connected with this scholarship have personal stories that exemplify encouragement of others. It is the family's hope that the recipients will both receive encouragement and, in turn, become encouragers of others. Candidates are Calvin students entering their junior or senior year who are pursuing a major in music, who have made significant contributions to the general music program at Calvin, and who are growing in their spiritual and musical gifts. Grade point averages will be considered but not given a priority. There should be some evidence of financial need. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Two scholarships of $1,200 were awarded for 2007-2008.

Llewellyn L. Cayvan String Instrument Scholarship Mr. and Mrs. Leo L. Cayvan were long-time supporters of the Calvin Music Department. As part of their estate planning, they arranged to fund music scholarships for students who excel in playing the violin, viola, cello, or string bass. Candidates are students entering any class level at Calvin, with preference given to students who participate in a chamber ensemble or string quartet. Returning students must have a cumulative grade point average of 2.50 or higher and demonstrate some evidence of financial need. Scholarship recipients are required to participate in the Calvin Orchestra and take private lessons. Current recipients who wish to be considered for re-

newal must file a new application each year and will be given equal consideration with other candidates. Six scholarships of $1,500 were awarded for 2007-2008.

DeVries Church Music Scholarship Interest from this fund provides one scholarship to an outstanding student who has an interest in and aptitude for a career in church music. Candidates are Calvin students entering their sophomore, junior, or senior year. They will be judged by the following criteria: proficiency in performance as a singer or keyboardist, participation in an appropriate faculty-directed ensemble or accompanying, and grade point average (minimum of 2.50 in music). Students are required to participate in an appropriate faculty-directed ensemble and to take private lessons for credit in the medium for which the scholarship is granted during the year the scholarship is used. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $1,500 was awarded for 2007-2008.

Friends of Music Scholarship Contributions have been received from the Calvin Music Department alumni to fund annual scholarships supporting students involved in Calvin ensembles. Candidates are Calvin students entering their sophomore, junior, or senior year who have demonstrated superior achievements in a Calvin ensemble or to prospective students who show great potential. Students are required to participate in an appropriate faculty-directed ensemble in the area of the award during the year the scholarship is used.

Harold and Gladys Geerdes String Scholarship Contributions have been received for the establishment of a string award. Candidates are outstanding string players entering their sophomore, junior or senior year at Calvin who have attended Calvin for at least one year, although consideration may also be given to outstanding prospective students. Applicants will be judged on the basis of proficiency in performance as a string player, participation in the Calvin Orchestra, and grade point average (minimum of 2.50 in music). Consideration will also be given to those active in a chamber music ensemble. Students are required to participate in the Calvin Orchestra and to take private lessons for credit in the medium for which the scholarship is granted during the year the scholarship is used (except for music education students during student teaching.) Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $900 was awarded for 2007-2008.

Harold Geerdes Violin Scholarship Harold Geerdes has made a significant contribution to thousands of young people as a teacher at Grand Rapids Christian High School and at Calvin College. Many have benefited from his loving, professional leadership as band director, choir director, orchestra director, and Oratorio Society director. This scholarship was established from contributions received by the Music Department in honor of Harold Geerdes, to provide awards to outstanding violin students entering their junior or senior year at Calvin. Applicants will be judged on the basis of proficiency in performance as a violinist, participation in the Calvin Orchestra, and grade point average (minimum of 2.50 in music). Students are required to participate in the Calvin Orchestra and to take private lessons for credit in the medium for which the scholarship is granted during the year the scholarship is used (except for music education students during student teaching). Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $1,500 was awarded for 2007-2008.

Helene Hekman Gezon Voice Scholarship Contributions have been received by the Music Department in memory of Mrs. Gezon, a prominent contralto soloist with the Calvin Oratorio Society. Interest from this fund provides annual awards to outstanding voice students entering their junior or senior year at Calvin who have attended Calvin at least one year. Applicants are judged on the basis of proficiency in performance as a singer, participation in an appropriate faculty-directed choir, and a minimum

grade point average of 2.50. Students are required to participate in a faculty-directed choir and to take private lessons for credit in the medium for which the scholarship is granted during the year the scholarship is used (except for music education students during student teaching). Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Two scholarships of $1,400 were awarded for 2007-2008.

Allene Huizenga Goguen Music Education Scholarship The family of Allene Huizenga Goguen established this scholarship to honor her life and career in urban music education. This scholarship is awarded to students who have demonstrated through course work or extracurricular activity an interest in urban music education. Candidates are Calvin students entering their senior year who are pursuing a program in Music Education, have a cumulative grade point average of at least 3.00, and exhibit the musical skills and leadership qualities needed for urban music education. This scholarship is not renewable. Two scholarships of $1,750 were awarded for 2007-2008.

Trena Haan Voice Therapy Scholarship Mrs. Trena Haan, a vocal music teacher for more than sixty years, with nineteen of these years teaching voice at Calvin, established this scholarship to encourage music students, future music teachers, and vocalists to appreciate how the voice is used correctly as an instrument. Since her "retirement" she has been involved as a vocal therapist for people with physical vocal problems, helping numerous teachers, singers and speakers deal with hoarseness or abused vocal cords. First preference is given to current Calvin students majoring in voice, choral conducting, or vocal music education with an interest in studying the anatomy and function of the vocal instrument in order to provide voice therapy. Second preference is given to a Calvin faculty member, present or past, involved in teaching of voice. Third preference is given to a Calvin vocal alumnus currently involved in vocal music education. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $700 was awarded for 2007-2008.

John E. and June B. Hamersma Organ Scholarship Dr. John and Mrs. June Hamersma are alumni and employees of Calvin. Dr. Hamersma is a Professor of Music and college organist and Mrs. Hamersma was the Director of the January Series. Because of their commitment to the Christian liberal arts ideals of Calvin and to the pipe organ and its literature, they have established this scholarship to encourage the serious study of the organ and its literature. Candidates are students entering their first year at Calvin who are intending to major in music with a concentration in either organ or church music, with an emphasis on organ. They must have a cumulative high school grade point average of 3.50 or higher. The applicant is expected to audition by means of performance on a keyboard instrument, preferably in person, though tape is permissible. Recipients are required to take private organ lessons for credit during the year the scholarship is used. This scholarship is renewable for the sophomore year if the recipient maintains a Calvin grade point average of 3.20 or higher and if approval to major in organ or church music has been granted by the Music Department. One scholarship of $1,500 was awarded for 2007-2008.

Henry and Nellie Holtvluwer Music Award This award was established by a gracious bequest from the estate of Mr. Henry and Mrs. Nellie Holtvluwer. Mr. Holtvluwer was the first chairman of the Calvin Oratorio Society and it was the Holtvluwers desire to provide financial assistance to students majoring in music at Calvin. Candidates are Calvin students entering their junior year who are pursuing a degree in music and who have attended Calvin at least one year. There should be some evidence of financial need. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $2,300 was awarded for 2007-2008.

Marge Houskamp Organ Scholarship Mrs. Margaret A. (Marge) Houskamp was a longtime employee and an ardent supporter of

Calvin. Her husband, Robert W. Houskamp, established this scholarship in her memory because of their mutual interest in church organ music and their concern about the declining number of organists who can adequately serve the church's changing worship needs. Mr. Houskamp would like to encourage students to study organ music and to prepare themselves to serve the church as organists in future years. Candidates are students entering any class level at Calvin, but preference will be given to prospective first-year students. Prospective students must have a high school grade point average of 3.20 or higher and returning students must have a grade point average of 3.00 or higher. Recipients are required to take private organ lessons for credit during the year the scholarship is used and they must be planning to become a church organist (either full or part-time). Current recipients who wish to be considered for renewal will be given equal consideration with other candidates. Two scholarships of $2,000 were awarded for 2007-2008.

Kuipers Family Scholarship for the Calvin College Band Mr. Lawrence and Mrs. Nancy Kuipers established this scholarship to encourage the non-music majors to contribute their talents to the Calvin Band. All four of the Kuipers' children played in the Calvin Band as non-music majors. Candidates are Calvin students entering their junior year who are non-music majors and who will be playing in the Calvin Band. They must exemplify strong Christian character and a visible attitude of encouragement toward other students that contributes to the positive spirit of the band. They must have a grade point average of 2.50 or higher. Financial need is not required. No application is required. The officers of the Calvin Band will nominate candidates and final selection will be voted on by the members of the Calvin Band. This scholarship is automatically renewed for the senior year provided the student continues to meet the criteria. Two scholarships of $1,700 were awarded for 2007-2008.

Music Department Applied Music Scholarship Several awards are presented by the Calvin Music Department to prospective first-year students. These awards are given to instrumentalists and vocalists who have records of superior achievements in high school music activities and who give evidence of outstanding talent and musicianship in audition. Students are required to participate in an appropriate faculty-directed ensemble, and to take private lessons for credit in the medium for which the scholarship is granted. This scholarship is not renewable.

Norman and Anne Noordeloos Keyboard Award Contributions have been received by the Music Department in memory of Norman and Anne Noordeloos, relatives of students active in Calvin's music program. Candidates are outstanding musicians at Calvin who are entering their junior or senior year and who have attended Calvin at least one year. Applicants will be judged on the basis of proficiency in performance, participation in an appropriate faculty-directed ensemble or accompanying, and grade point average (minimum 2.50 in music). Recipients are required to take private keyboard lessons for credit during the year the scholarship is used (except for music education students during student teaching). Current recipients who wish to be considered for renewal must file a new application every year and will be given equal consideration with other candidates. Two scholarships of $2,100 were awarded for 2007-2008.

Oratorio Society Applied Music Scholarship Several awards are presented by the Calvin Oratorio Society to prospective first-year students. These awards are given to vocalists and string players who have records of superior achievement in high school music activities and who give evidence of outstanding talent and musicianship in audition. Vocal recipients are required to participate in the Oratorio Chorus and another faculty-directed credit ensemble. String players are required to participate in the Calvin Orchestra. All recipients are required to take private lessons for credit in the medium for which the scholarship is granted during the year the scholarship is used. This scholarship is not renewable.

Norine E. Potts Scholarship This scholarship was established through an estate gift from Ms. Norine E. Potts. It was her desire to provide scholarship assistance to stu-

dents interested in studying organ music. Candidates are students entering any class level at Calvin who are planning to enroll in organ music classes, which can entail Calvin organ classes, private lessons, or group lessons. First preference is given to a music major with an organ concentration and second preference is given to a student in another major who is taking organ lessons. Students who are members of Pillar Christian Reformed Church in Holland, Michigan or a graduate of Holland Christian High School will be given special consideration. They must have a grade point average of 2.50 or higher. Financial need is not required. Current recipients who wish to be considered for renewal must file a new application every year and will be given equal consideration with other candidates. Eight scholarships of $2,500 were awarded for 2007-2008.

Rainbow Foundation Wind Award Dr. Tom and Mrs. Marge Hoogeboom of the Rainbow Foundation in Kalamazoo, Michigan, have had children graduate from Calvin who have participated in the Music Program as students at Calvin. They are grateful for the impact the Music Department has had on their lives and on the lives of their children and want to promote the continued development of instrumental music at Calvin. Candidates are Calvin students entering their junior or senior year. Applicants will be judged on the basis of proficiency in performance, participation in an appropriate faculty-directed ensemble, and grade point average (minimum of 3.00 in music). The recipient is required to participate in an appropriate faculty-directed ensemble and take private lessons for credit in the medium for which the scholarship is granted during the year the scholarship is used (except for music education students during student teaching). Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One award of $750 was awarded for 2007-2008.

Dr. Howard J. Slenk Music Scholarship This scholarship was established to honor Dr. Howard Slenk (now emeritus Professor of Music) and the influence he has had on the lives of the donors and many other students, through his leadership of the Capella Choir and Oratorio Society, as well as his excellent classroom teaching. Dr. Slenk modeled a technical concern for details of musicianship in the choral/vocal situation, while simultaneously maintaining a deep emotional awareness of the beauty of the music and meaning of texts. His intelligence, sensitivity, and humility were a continuous example to young, ambitious students. This scholarship was established to honor Dr. Slenk's many contributions to the Music Department and to Calvin as a whole, but most particularly, his unique legacy to Calvin students. Candidates are Calvin students entering their sophomore, junior or senior year. Preference (in order) is given to students 1) planning to go into choral conducting as a profession, 2) planning to enter the profession of church music, with a specialization in choral conducting, 3) planning to enter the profession of church music, with a specialization in organ, or 4) focusing on the area of musicology. Financial need is not required. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $2,500 was awarded for 2007-2008.

Seymour Swets Voice Scholarship Contributions have been received by the Music Department in memory of Seymour Swets, the founder of Calvin's Music Department. Candidates are outstanding voice students who are entering their junior or senior year at Calvin. Applicants will be judged on the basis of proficiency in performance, participation in an appropriate faculty-directed choir, and grade point average (minimum 2.50 in music). Students are required to participate in an appropriate faculty-directed choir and to take private lessons for credit in voice during the year the scholarship is used (except for music education students during student teaching). Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Two scholarships of $1,750 were awarded for 2007-2008.

John R. and Marie A. Swierenga Brass Scholarship This scholarship was established to honor the memory of John R. and Marie A. Swierenga. Mr. and Mrs. Swierenga had six children, all of whom attended Calvin and were active in various choral and/or instrumental groups. Mr. Swierenga played a brass instrument and all six children played brass instruments in the Calvin Band. Mr. and Mrs. Swierenga instilled in their children and grandchildren a love for music and the church. They faithfully attended the choir, band and orchestra concerts of their children and grandchildren and nurtured and supported a profound respect for God's gift of music. Candidates are Calvin students who play a brass instrument. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Two scholarships of $1,400 were awarded for 2007-2008.

John and Doris Van Dellen Music Scholarship John and Doris Van Dellen, brother and sister, are both graduates of Calvin and were both active during their four years at Calvin in the Acapella Choir. Doris sang as a soloist with the Choir and sang frequently in the Grand Rapids churches. During his college days, John sang in a male quartet whose members continued to sing together for many years. Candidates are Calvin students entering their junior or senior year who are outstanding musicians but not necessarily a music major. They must be an active participant in a faculty-directed ensemble sponsored by the Calvin Music Department in the medium in which the award is given, with first consideration given to students who are outstanding in vocal music. Also considered are students who have a potential for making a contribution in music in the future. They must have a grade point average of 2.50 or higher. Applicants will be judged on the basis of proficiency in performance, participation in an appropriate faculty-directed ensemble and grade point average (minimum of 2.50). Recipients are required to participate in an appropriate faculty-directed ensemble and to take private lessons for credit in the medium for which the scholarship is used (except for music education students during student teaching). Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Two scholarships of $2,000 were awarded for 2007-2008.

VanderBeek/Palma Piano Scholarship This scholarship was established in honor of Eleanor Vander Beek Palma, an alumna of Calvin, who graduated with her degree in Music and went on to share her gifts by teaching piano to many others. This scholarship was established by Eleanor's family out of love and respect for her memory. Candidates are Calvin students entering their sophomore, junior, or senior year who are music majors with a concentration in piano performance. They must have a grade point average of 2.50 or higher and demonstrate some evidence of financial need. This scholarship is automatically renewable if the student continues as a music major with a concentration in piano performance and has the qualifying grade point average. One scholarship of $4,000 was awarded for 2007-2008.

Vander Griend Voice Scholarship This scholarship was established by Mrs. Carolyn Vander Griend who was the recipient of a similar award, the Vander Heide Voice Award, while she was a student at Calvin. Because of the encouragement and affirmation she received as a recipient of this award she has cultivated a lifetime of enjoyment from singing as well as a deeper appreciation for music in general. Candidates are students entering their first year at Calvin who are interested in pursuing a major or minor in Music and who exhibit interest and capability in voice and be studying voice. They are required to participate in an appropriate faculty-directed choir and to take private lessons for credit in voice during the year in which the scholarship is used. Financial need is not required. If no first-year students meet the criteria then a sophomore or junior may be considered. This scholarship is not renewable. Two scholarships of $1,750 were awarded for 2007-2008.

VanderHaagen Family Scholarship for Church Musicians This scholarship was established by the VanderHaagen family because of their belief in the rich spiritual blessing provided by church music. The VanderHaagens believe that music is used by the Spirit to awaken and inspire, and are thankful for the music dedicated to God that they have enjoyed at Calvin and in their churches. The family established this scholarship to encourage students to develop their musical talents for service to the church. Candidates are Calvin students entering their junior or senior year who are pursuing or planning to pursue a program in church music, either general, organ, or choral. They must have a grade point average of 2.70 or higher and demonstrate some evidence of financial need. Applicants will be judged on the basis of proficiency in performance as a singer or keyboardist, a cumulative grade point average of 2.70, and financial need. Students are required to participate in an appropriate faculty-directed ensemble or accompanying and to take private lessons for credit in the medium for which the scholarship is granted during the year in which the scholarship is used. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Two scholarships of $1,800 were awarded for 2007-2008.

Vander Heide Voice Scholarship Awards are offered by the Jan and Anne Vander Heide family to vocalists who have a record of superior achievement in high school music activities. Students are required to participate in an appropriate faculty-directed choir and to take private lessons for credit in voice during the year in which the scholarship is used. Applicants will be judged on the basis of evidence of talent and musicianship. This scholarship is not renewable. Two scholarships of $1,700 were awarded for 2007-2008.

Judith Vroon Vander Zee Music Education Scholarship In memory of Judith Vroon Vander Zee, family and friends established this scholarship to keep alive her musical excellence and service to God and others. She was an extremely gifted vocalist, pianist, and teacher who used her gifts always to the glory of God. Her eighteen year battle with multiple sclerosis made it impossible for her to use her gifts of music as much as she would have liked during her illness, but she continued to be a guiding light of encouragement to others. Candidates are Calvin students entering their junior or senior year who are pursuing a degree in Music Education and who demonstrate a strong Christian commitment. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $1,700 was awarded for 2007-2008.

Lloyd and Arlene Warners Family Keyboard Scholarship This scholarship was established by Mr. Lloyd and Mrs. Arlene Warners of Spring Lake, Michigan, for deserved and qualified students majoring in music. First preference is given to students entering their first year at Calvin. If no first-year students qualify, then it is open to returning students. Preference is given to piano students, then organists, and then other musicians. There should be some evidence of financial need. Recipients will be chosen based on high academic potential and achievement, musical sensitivity commensurate with their maturity, and outstanding performance achievement level. Recipients are required to take private lessons in the medium for which the scholarship is granted and participate in a faculty-directed ensemble or accompanying. This scholarship is automatically renewable if the recipient continues to demonstrate adherence to the standards of this award and exhibits expanding musical growth, maturity and achievement above and beyond the norm expected of Calvin students in similar circumstances. One scholarship of $2,000 was awarded for 2007-2008.

John W. Worst Music Scholarship Dr. Myra J. Kraker, Professor of Education, established this scholarship in honor of her husband, Dr. John W. Worst, emeritus Professor of Music. This scholarship seeks to recognize his many contributions to the Music Department in particular and

to Calvin College in general. In addition, this scholarship seeks to provide assistance to students pursuing a career in music. Candidates are students entering any class level at Calvin (first consideration will be given to seniors, then juniors, then sophomores, and then first-year students). They must be interested in the art of music making, either in performance, composition, musicology, or theory, with preference given to those intending to pursue a career in opera, music theater, or who are active in such endeavors at Calvin. Recipients should remain active in the Music Department. They must have a grade point average of 2.50 or higher and demonstrate some evidence of financial need. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $1,500 was awarded for 2007-2008.

Ruth Ann Worst Memorial Music Scholarship Longtime music professor John Worst and his family established this scholarship to honor Ruth Ann Worst, beloved wife, mother, and grandmother, for her love of music and her life of singing. Candidates are Calvin students entering their junior or senior year, with priority given to music composition students. They must have a grade point average of 3.00 or higher in music. Financial need is not required. Recipients must enroll in a music composition course for at least one semester during the year of the award. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $1,000 was awarded for 2007-2008.

Johanna Kempers Wyngaarden Scholarship In gratitude to God for His blessings over the years, Dr. James B. Wyngaarden of Durham, North Carolina, established this scholarship to honor his mother, Mrs. Johanna Kempers Wyngaarden. Mrs. Wyngaarden is lovingly remembered by her children as a warm and nurturing Christian mother who filled her home with music, art and inspirational prayers. The purpose of this scholarship is to strengthen Christian education in music and fine arts for worthy students. Candidates are students entering any class level at Calvin who are pursuing a degree in Music or Art and Art History. Music Department scholarships are awarded according to the following criteria: first preference is given to a music major concentrating in piano performance, second preference is given to a music major not concentrating in piano performance but who takes two semester hours of private piano lessons per semester, and third preference is given to a non-music major who takes two semester hours of private piano lessons per semester. Candidates must show exceptional promise and leadership potential. Financial need will be considered. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Three scholarships of $5,500 was awarded for 2007-2008, one to an art major and two to music majors.

John and Betty Zandee Organ Music Scholarship Contributions have been received by the Music Department in memory of Mr. John and Mrs. Betty Zandee through the generosity of Mr. and Mrs. Everett Hassing of Kalamazoo, Michigan, longtime supporters of Calvin and its music department. Candidates are organ students entering their sophomore, junior, or senior year at Calvin. Applicants will be judged on the basis of proficiency in performance, participation as a chapel organist or choir accompanist, a cumulative grade point average of 2.70 or higher, and financial need. Students are required to take private organ lessons for credit during the year in which the scholarship is used. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Three scholarships of $1,500 were awarded for 2007-2008.

Carol Lee Zylstra Church Music Scholarship Carol Lee was a church organist for many years beginning as a teenager in her church in Leota, Minnesota. Church music has always been a love for her and she desires that young people are encouraged to be engaged in music for church worship. Candidates are students entering any class level at Calvin who are majoring in Music

with a concentration in church music, with preference given to students with a special interest in organ. There should be some evidence of financial need. This scholarship is automatically renewable if the student continues to major in music with a concentration in church music. Two scholarships of $3,000 were awarded for 2007-2008.

Gerald and Adriana Zylstra Piano Scholarship The Music Department has received contributions from the estate of Mr. Gerald S. and Mrs. Adriana M. Zylstra for the establishment of a piano award. Mrs. Zylstra taught piano for over forty years and was the first piano teacher for many children. Candidates are students entering their first year are Calvin who are planning to take piano lessons for credit, with preference given to students intending to major in music. Financial need is not required. Applicants will be judged on the basis of proficiency in performance and record of high school achievement. This scholarship is automatically renewable if the recipient maintains a grade point average of 2.50, continues to take piano lessons for credit, and makes satisfactory academic progress. Four scholarships of $2,000 were awarded for 2007-2008.

Nursing Department

Ruth Rosendall Alward Scholarship Ruth Rosendall Alward wishes to facilitate the education of Calvin nursing students out of gratitude to God for many blessings and to Calvin for providing a sound foundation for a career in nursing service and education. Candidates are Calvin students entering their junior or senior year who are in Calvin's nursing program. There should be some evidence of financial need. To apply, use the Upper-class Named Scholarship Application available through KnightVision in January. This scholarship is automatically renewable if a 3.00 grade point average is maintained. Two scholarships of $2,000 were awarded for 2007-2008.

Leah Berends Nursing Scholarship This scholarship was established by the Berends family of Grand Rapids, Michigan, in memory of Leah Berends, who with a gentle spirit and servant heart dedicated her life and nursing career to helping those who were hurting physically and emotionally. Leah's family is also grateful to the nurses and medical professionals who surrounded them with compassion during her last days of life on earth. The Berends family hopes to encourage nursing students to embrace the words of Galatians 6:2, "Carry each other's burdens and in so doing you will fulfill the law of Christ." Candidates are Calvin students entering their junior or senior year who are in the Calvin nursing program. Preference is given to those who demonstrate a compassionate spirit and servant heart. Financial need may be considered. To apply, use the Upper-class Named Scholarship Application available through KnightVision in January. This scholarship can be renewed for the senior year if the student makes satisfactory academic progress and if they remain in the nursing program. Two scholarships of $3,000 were awarded for 2007-2008.

John K. and Betty Boerema Family Nursing Scholarship Disappointing his parents by attending and graduating from Michigan State University instead of Calvin, First Lieutenant Boerema returned from overseas during the Korean War and enrolled as a graduate student at Calvin for teacher education. He taught and coached five years as an instructor and administrator at Grand Rapids Junior College. His wife, Betty, was adopted from an orphanage in Minnesota and her family later moved to Grandville. Betty is a graduate of Blodgett Memorial School in Nursing where she was influenced and made many lifelong Calvin nursing friends. John and Betty believe that it was God's providence that brought them together under very unusual circumstances. The Boerema Family has a very special interest in gerontology and both of John's parents were patients at the Holland Home. It is their desire to have others join their daughter, Glenes Hamersma and daughter-in-law, Teri Boerema, as Christian nurses in the field of gerontology. Candidates are Calvin students entering their junior year who are Nursing majors. First preference is given to students working part-time at the Holland Home (either in nursing or Hospice care). Second preference is given to students indicating a nursing career in gerontology. Third preference

is given to an adoptee. They must have a minimum grade point average of 2.50 or higher and demonstrate some evidence of financial need. To apply, use the Upper-class Named Scholarship Application available through KnightVision in January. This scholarship is automatically renewable if the student continues to meet the above criteria. Two scholarships of $2,300 were awarded for 2007-2008.

Kate Borgman Nursing Scholarship Mr. and Mrs. Fred Borgman of Grand Rapids, Michigan, established this scholarship in memory of their mother, Mrs. Kate Borgman, who dedicated her life to the nursing profession. Candidates are Calvin nursing students entering their junior or senior year who demonstrate industry, motivation, and worthiness to be successful in the Nursing Program and to contribute to society through the nursing profession. They must have a grade point average of 2.50 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Two scholarships of $2,150 were awarded for 2007-2008.

Butterworth Nursing Scholarship This scholarship was established to financially assist nurses in the attainment of a primary RN nursing degree as well as to maintain the supply of qualified nurses. Candidates are Calvin students entering their junior or senior year, with preference given to students planning to work in the Grand Rapids area. They must have a cumulative grade point average of 3.00 or higher. Financial need is not required. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $1,000 was awarded for 2007-2008.

Thedford P. and Ruth I. Dirkse Scholarship The children of Thedford and Ruth Dirkse established this scholarship to honor their parents' long association with Calvin. Both Ted and Ruth are graduates of Calvin, class of 1936. Ted began his teaching career at Calvin in September 1947, when he was hired as a professor in the Chemistry Department. During his entire tenure at Calvin, Dr. Dirkse taught chemistry to the students in the nursing department. He always enjoyed teaching the nurses. Ted retired in 1980. Ruth Imanse Dirkse was manager of the Calvin Bookstore when she married Ted in March 1950. At the time she was also active in the Alumni Association and wrote a column, "Bookstore Briefs", in Chimes. It was Ted and Ruth's desire that the scholarship be used to benefit students in the nursing program. Candidates are Calvin students entering their junior or senior year who are pursuing a program in nursing. They must have a grade point average of 3.30 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients who earn a grade point average of 3.50 or higher and continue to demonstrate financial need will be given preference for renewal. Renewal candidates below a 3.50 will be given equal consideration with other candidates. One scholarship of $3,300 was awarded for 2007-2008.

Bryan Dykstra Nursing Scholarship The family and friends of the late Bryan Dykstra from Rochester, New York, established this scholarship in Bryan's memory, to recognize all that Christian nurses did for Bryan before his death. Bryan was a student at Calvin in 1982-1983 before he contracted leukemia and passed away in the fall of 1983. Candidates are Calvin students entering their junior or senior year who are pursuing a program in nursing. They must give evidence of a strong academic record and potential for Christian service in the nursing profession. They must demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $2,200 was awarded for 2007-2008.

Kathryn Groenevelt Nursing Scholarship This scholarship was established by Kathryn Groenevelt, a dedicated member of

the nursing profession. Her desire was to contribute financial support as well as to encourage and influence nursing students to aspire to excellence and commitment in their nursing careers. Throughout her career she held positions with the VNA Community Health Service in Grand Rapids, Ottawa County Health Department, Holland City Hospital, and Butterworth Hospital. She returned to public health nursing in 1959 for the Ottawa County Health Department and remained there until her retirement. Kathryn was recognized as a great leader in her field at the local and state levels. Kathryn will be remembered by her service to the community and exemplary dedication to nursing and to nurses' training. Her concern for patients, her empathy and her quiet insistence that humanity be appropriately served earned her recognition by her colleagues as "community health nurse's community health nurse". Candidates are Calvin students entering their junior or senior year who are majoring in nursing and who are industrious and hard working as demonstrated in extracurricular activities. First preference is given to students pursuing work in the public health arena (community based nursing programs, such as the parish nursing program). These programs will include health care for, but not limited to, children, migrant workers, or single mothers. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply, use the Upper-class Named Scholarship Application available through KnightVision in January. This scholarship is automatically renewable if a cumulative grade point average of 3.00 or highe is maintained. Two scholarships of $3,500 were awarded for 2007-2008.

Wilma Bylsma Hertel Memorial Nursing Scholarship This scholarship was established by Mr. James Hertel of Fremont, Michigan, in memory of his wife, Wilma, who dedicated her life to providing compassionate nursing care. Candidates are Calvin students entering their junior or senior year who are enrolled in the Nursing Program. They must have a cumulative grade point average of 2.50 or higher, however, preference is given to those who do not necessarily have the strongest academic record but who demonstrate the potential to be successful in the nursing program and to contribute to society through the nursing profession. They must demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $3,600 was awarded for 2007-2008.

David and Shirley Hubers Scholarship David and Shirley Hubers have a long-standing commitment to Christian education. This was passed on to daughters, Stephanie, who graduated with a BA in education and Lisa, who graduated with a BS in Nursing. This scholarship was established in their honor to help students entering the teaching and nursing professions. Candidates are Calvin students entering their junior or senior year who are pursuing a program in nursing or education. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. If these criteria are met, selection will be based on the student's academic record, degree of financial need, and potential for Christian service in nursing or education. To apply, use the Upper-class Named Scholarship Application available through KnightVision in January. This scholarship is not renewable. Three scholarships of $2,200 were awarded for 2007-2008.

Kent Medical Foundation Grant Each year Calvin receives funds from the Kent Medical Foundation to be used for grants for students in nursing. Candidates are residents of Kent County or bordering counties who are enrolled or planning to enroll in the Bachelor of Science Nursing Program. Selection is made on the basis of the student's academic record, potential for service as a nurse, and financial need. Separate application is necessary. Contact the Nursing Department for more information.

Milton and Carol Kuyers Family Nursing Scholarship Milton and Carol Kuyers have a longstanding commitment to Christian Education, having received that heritage from their parents and having passed it on to their children. As Carol's field of education was nursing, they established

this scholarship for nursing students. Candidates are Calvin students entering their junior or senior year who are enrolled or planning to enroll in the nursing program. Preference is given to highly motivated students who have been successful in their college program to date and demonstrate the potential to be successful in the nursing program and to contribute to society in the nursing profession. They must have a cumulative grade point average of 2.50 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Four scholarships of $3,000 were awarded for 2007-2008.

Blake, Elise and Macy Morren Memorial Scholarship In May of 1996, Bill and Sue Morren were blessed with twins, a boy and a girl, Blake David and Elise Katherine. At the age of seven months they were both diagnosed with a fatal, genetically inherited neuromuscular disease called Spinal Muscular Atrophy (SMA), also known as Werdnig-Hoffman Disease. Both happy and bright children, Blake and Elise were familiar with doctors, nurses and long hospital stays because of their weakened respiratory systems. They died before they turned two. Bill and Sue's third child, Macy Christine, was also born with SMA and joined Blake and Elise in heaven in February 2001 at the age of twenty-one months. In their contact with literally hundreds of pediatric medical staff, Bill and Sue have been touched not only by the skill and patience of their children's pediatric nurses, but also by the compassion these nurses showed and the Christ-like way in which they cared for their children. It is the Morrens' hope that they can in some small way help enable Calvin students with a desire to enter the nursing field to accomplish their goals. Candidates are Calvin students entering their junior or senior year who have been accepted into the nursing program. First preference is given to students pursuing a career in pediatric nursing and second preference is given to students who are open about expressing their faith. There should be some evidence of financial need. To apply, use the Upper-class Named Scholarship Application available through KnightVision in January. This scholarship is automatically renewable if the recipient maintains the above criteria and continues in the nursing program. Two scholarships of $3,000 were awarded for 2007-2008.

Carol Pasterkamp Memorial Nursing Scholarship This scholarship was established by the family and friends of Carol Pasterkamp for her commitment to nursing in the face of great adversity. During Carol's years at Calvin, she was involved in a severe skiing accident. Carol was able to return to Calvin to complete her nursing training and then went on to work as a nurse in a school system as well as at the health department in Grand Rapids. Carol was deeply committed to helping children and families. Carol's family and friends would like this scholarship to be awarded to nursing students who face special physical circumstances who are returning to school at a later age. As an alternative, the scholarship may be awarded to students wishing to work in pediatrics. Candidates are Calvin students entering their junior or senior year who are admitted to the nursing program. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients who wish to be considered for renewal must continue in the nursing program and will be given equal consideration with other candidates. Two scholarships of $1,450 were awarded for 2007-2008.

Sammie Vander Laan Nursing Scholarship Mrs. Sammie Vander Laan of Palm Springs, California, established this scholarship because of her commitment to nursing and to helping people. She wanted to be a nurse since she was just six years old. Her goal in life was to help people. Because she has experienced a life-long satisfaction of helping others, Sammie now wants to give something back to her profession by establishing this scholarship and thus allowing someone else the same opportunity to enter the field of nursing as she did. Candidates are Calvin students entering their junior or senior year who are enrolled or planning to enroll in the

Nursing Program and who have the gifts for and the desire to provide good bedside care. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Two scholarships of $2,300 were awarded for 2007-2008.

Jessica Ann Van Heest Memorial Scholarship This scholarship was established by Anna Van Heest in memory of her nine year old granddaughter, Jessica Ann Van Heest, who was tragically killed in an off-road vehicle accident on September 18, 2006, in Lamont, Michigan. Anna was deeply touched by the Christ-like love and compassion shown by the nurses in the Pediatric Intensive Care Unit at Spectrum Butterworth Hospital in Grand Rapids, Michigan, as they cared for both Jessica and her family. Candidates are Calvin students entering their junior or senior year who have been accepted in the Calvin Nursing Program. They must be interested in pediatrics and demonstrate a caring attitude for patients and their families. There should be some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $5,000 was awarded in 2007-2008.

Victor VerMeulen Medical Scholarship Dr. Victor and Mrs. Mildred VerMeulen of Grand Rapids, Michigan, established this scholarship in honor of their son, a Calvin alumnus. Dr. VerMeulen practiced as an orthodontist in Grand Rapids for many years and Mrs. VerMeulen is an alumna of Calvin. Candidates are Calvin students entering their junior or senior year who are pursuing a nursing or pre-med program. Also considered is the student's potential for Christian service in medicine. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. Typically ten scholarships of $2,000 are awarded to students entering their junior or senior year; five in the nursing program and five in the pre-medical program.

Valetta Walton Memorial Nursing Scholarship The children of Valetta Walton established this scholarship in memory of their beloved mother's long career and commitment to the nursing profession. This scholarship particularly honors the dedicated nurses from Blodgett Hospital who cared for Valetta at the end of her life. Valetta's children deeply appreciated the loving care their mother received and wish to see others receive similarly excellent care. Candidates are Calvin nursing majors entering their senior year, with preference given to those with an interest in Gerontology and/or Intensive Care. They must have a cumulative grade point average of 2.50 or higher and demonstrate some evidence of financial need. To apply, use the Upper-class Named Scholarship Application available through KnightVision in January. This scholarship is not renewable. One scholarship of $1,000 was awarded for 2007-2008.

Charles R. and Marie Werner Scholarship Mrs. Marie Werner and her family established this scholarship in gratitude for the wonderful Christian education that she and her late husband, Chuck, and their four daughters received at Calvin. Marie has designated this scholarship to the Nursing Department in honor of two of her daughters who graduated from the Calvin/Grand Valley Nursing program that was in existence in the 1970's and 1980's. The Werner family wishes to emphasize the students' commitment to nursing as a profession that serves the Lord in caring for His people. Candidates are Calvin students entering their junior or senior year who are in the Calvin Nursing program. They must demonstrate Christian character and promise of growth through participation and leadership in activities outside the classroom such as community, church, and extra-curricular activities. There should be some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through

KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $2,700 was awarded for 2007-2008.

Whitney Young Outreach Gerontological Nursing Scholarship The purpose of the Whitney Young Outreach Gerontological Nursing Scholarship is to honor the dedication of its founding Board President, Kathy Miles, and its original Board Members: Mr. Floyd Miles, Mr. Delbert Crowe, and tenured member Mr. Christopher Wilks. Mrs. Miles had worked in the field of low to moderate income housing for more than forty years. It is the hope of the board that the monies available for this scholarship will encourage and enable promising students the financial backing to engage in their studies while pursuing a degree in Geriatric Nursing. The donors want to provide an opportunity and pathway for students from challenging socioeconomic backgrounds to advance their education. Candidates are Calvin students entering their junior or senior year in the Nursing Program, with preference given to students who are graduates of urban public high schools. They must be interested in Gerontological Nursing, exhibit a spirit of service, uphold the ideals of the founding members, and have a positive outlook on life. They must have a grade point average of 2.70 or higher and demonstrate some evidence of financial need. To apply or reapply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $3,500 was awarded for 2007-2008.

Ruth Zylstra Memorial Scholarship This scholarship was established by the Ruth Zylstra family for students in nursing programs. Ruth had taken nursing courses at Calvin and was working as a nurse at the time she passed away in 1976. Candidates are Calvin students entering their junior or senior year who are pursuing a program in nursing. There must be some evidence of financial need. To apply or re-apply, use the Upper-class Named Scholarship Application available through KnightVision in January. Current recipients will be given equal consideration with other candidates. One scholarship of $500 was awarded in 2007-2008.

Off-Campus Programs

Kate Bytwerk Scholarship for Study Abroad This scholarship was established in memory of Katherine Bytwerk, daughter of Communications Arts and Sciences professor Randall and his wife Sharon Bytwerk. Katherine died at age twelve while hiking in the mountains during the 1996 Calvin Semester in Hungary program. Because of her delight in the opportunity to travel and learn through this international program, her family and friends established this scholarship to assist Calvin students in enjoying the benefits of studying abroad. Candidates are Calvin students entering their junior or senior year at the time the scholarship is used and must be participants in a Calvin semester abroad program. They must have a grade point average of 2.50 or higher. Financial need may be considered. Application available online from Off-Campus Programs. This scholarship is not renewable. Two scholarships of $1,700 are awarded for 2007-2008.

International Opportunities Scholarship Mr. Shane and Mrs. Melissa De Jong Schaap have been blessed by their experiences abroad. This scholarship was established to encourage Calvin students to participate in a semester or year abroad program and to use their experience to expand their cultural sensitivity, to pursue activities or employment with cross-cultural opportunities, and to grow in their faith and commitment to sharing Christ with people of all nations. Candidates are Calvin students entering their junior or senior year who are participants in a Calvin semester abroad program (Britain, China, Honduras, Hungary, France, or Spain). They must be pursuing a major in History, Political Science, Economics, or Communications. They must also plan to work in the international scene and be committed to serving Christ and integrating their faith with their studies. A cumulative grade point average of 3.00 or higher is required. Financial need may be considered. Applicants must write a brief essay about their career goals and how this scholarship will help them

achieve their goals. At completion of the recipient's semester abroad, a short paper on his or her experience will be submitted to the donor. Application available online from Off-Campus Programs. This scholarship is not renewable. Two scholarships of $1,500 are awarded for 2007-2008.

Philosophy Department

Bouwsma Memorial Scholarship Through the generosity of the late Mrs. Gertrude Bouwsma-Bos and in memory of her husband, the late Professor O.K. Bouwsma, scholarships are available to philosophy majors who exhibit outstanding achievement and continuing promise in philosophy. Professor Bouwsma was a Distinguished Alumnus of Calvin and an influential American philosopher. Candidates are Calvin students majoring in Philosophy who demonstrate outstanding achievement and continuing promise in philosophy as determined by the Philosophy Department. They must have a cumulative grade point average of 3.00 or higher. Financial need is not required. The recipient is selected by the Philosophy Department. No separate application is required. One scholarship of $1,650 was awarded for 2007-2008.

Kenneth J. Konyndyk, Jr. Scholarship Kenneth J. Konyndyk, Jr. taught in the Calvin Philosophy Department for 27 years, until his life's work was cut short in 1994 by cancer. His career was characterized by professional scholarship of the highest caliber, an unwavering commitment to teaching as a Christian vocation, a genuine interest in his students, and the pleasure he took in the company of his colleagues. To honor and recognize Kenneth Konyndyk's deep appreciation for Calvin, his love of philosophy, and his years of committed service to the college, his family established this scholarship to encourage young people who are majoring in philosophy and strengthen their vision of teaching philosophy as a Christian vocation. Candidates are Calvin students entering their senior year who are pursuing a major in Philosophy. They must be interested in teaching and scholarship in philosophy as a Christian calling. Financial need is not required. Applications available from the Philosophy Department. This scholarship is not renewable. Two scholarships of $3,500 or more were awarded for 2007-2008.

Dr. Bernard Zylstra, S.J.D., Memorial Scholarship Mr. Gerrit and Mrs. Carol Zylstra established this scholarship to honor their brother, Dr. Bernard Zylstra, former Professor of Political Theory and President of the Institute for Christian Studies. Bernard Zylstra actively promoted the development of Christian political theory, and this scholarship is intended to encourage students to pursue studies in the development of Christian political theory. Candidates are Calvin students entering their junior or senior year who show evidence of Christian character and promise of growth. They must have a grade point average of 3.00 or higher. Financial need is not required. Applicants must submit a 1,200 word essay that reflects on some article by Bernard Zylstra concerning political theory. They must also provide a statement of potential career goals that indicates some relevance to political theory and of how this scholarship would help accomplish those career goals. Applications available from the Philosophy Department. This scholarship is not renewable. Three scholarships of $4,000 were awarded for 2007-2008.

Physics and Astronomy Department

Ivan E. and Rebecca J. Boerman Scholarship Dr. Ivan and Mrs. Rebecca Boerman of Grand Rapids, Michigan, have provided the college with a gift out of gratitude for their Christian education and experience. It is their desire to honor Calvin Professor Howard Van Till, a long-time teacher, scholar, and friend, for his extensive contribution to Calvin and the broader evangelical community in the area of physics and astronomy. Candidates are students entering their first year at Calvin who are pursuing a major in physics. A high school grade point average of 3.30 or higher is required. Application available online from the Physics and Astronomy Department. This scholarship is renewable for the sophomore year if the student maintains a cumulative grade point average of 3.00 or higher and continues to pursue a major in Physics. Two scholarships of $1,450 were awarded for 2007-2008.

Roger D. Griffioen Scholarship Physics and Astronomy Department alumni and friends established this scholarship to honor Roger D. Griffioen. Dr. Roger Griffioen dedicated his professional career to Calvin. His leadership was central in bringing the Department of Physics and Astronomy from infancy to its present status as a leading undergraduate program. He oversaw the hiring of most faculty members in the department, and he has served as advisor and mentor to many of them as their careers developed. As a teacher Dr. Griffioen always strove for excellence in his teaching and in all areas of his life. In the classroom he was consistently willing to try new ideas and techniques, always with the goal of serving students paramount. He was a positive influence on the lives of both students and colleagues, setting high but realistic standards for them to achieve, and he willingly gave of himself to assist others. Dr. Griffioen served on Calvin's staff from 1961 until his retirement in 1999. He served 19 years as chairman of the department as well as seven years as Academic Dean for the Natural Sciences and Contextual Disciplines. Candidates are students entering their first year at Calvin who are majoring in physics. They must be good students with strong academic records. To receive this scholarship for their first year a recipient must enroll in Physics 133 and 134 or higher level major-sequence courses. Applications available online from the Physics and Astronomy Department for first-year students. No separate application is required for returning students. This scholarship can be renewed. Two scholarships of $2,100 were awarded for 2007-2008.

Political Science Department

DeKryger-Monsman Memorial Prize As a result of a gift to Calvin by Mrs. Gerald Monsman in memory of her husband, a scholarship is awarded to a junior political science major for use in his or her senior year at Calvin. The award is given solely on the basis of academic achievement. Application available online from the Political Science Department. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One prize of $3,100 was awarded for 2007-2008.

Peace and Justice Scholarship Candidates are Calvin students entering their sophomore, junior, or senior year who are actively involved with global peace and justice issues, particularly related to the causes of war and conditions for peace in the nuclear age. The students' grade point average and financial need may be considered. Although initially funded by Calvin alumnus Paul Hoffman, contributions from like-minded constituents and friends are welcome. Application available online from the Political Science Department. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Two scholarships of $1,050 were awarded for 2007-2008.

Charles Strikwerda Scholarship in Political Science John Van Dellen was a graduate of Calvin who entered the real estate profession following military service in World War II. A man of many talents and varied interests, John served his city and church in numerous ways. John established this scholarship to honor his nephew, Calvin Political Science Professor Charles Strikwerda. Candidates are Calvin students entering their junior or senior year, with preference given to seniors. They must be political science or international relations majors and they must be excellent students in and out of class as demonstrated by regular, thoughtful, and cheerful contributions in class discussions and by participation in campus and/or community activities. This scholarship is intended for an all-around good student who contributes significantly to the classroom and campus environment. A grade point average of 3.00 or higher is required. Application available online from the Political Science Department. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Two scholarships of $950 were awarded for 2007-2008.

Johan and Wilma Westra Scholarship Dr. Johan G. Westra was the first full-time Political Science professor at Calvin and

taught for many years. He also served as the pre-law advisor for more than twenty years. Wilma Westra has served Calvin as bookstore manager, executive secretary of the Alumni Association, Coordinator of Adult and Continuing Education, and as a volunteer Knollcrest Festival Chair. Candidates are Calvin students entering their junior or senior year who are majoring in Political Science or who are in the Pre-law program, with preference given to students active in volunteer work and interested in a career of public service. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. Application available online from the Political Science Department. This scholarship is automatically renewable if the student maintains a grade point average of 3.00 or higher and remains active in volunteer service. Two scholarships of $600 were awarded for 2007-2008.

Dr. Bernard Zylstra, S.J.D., Memorial Scholarship Mr. Gerrit and Mrs. Carol Zylstra established this scholarship to honor their brother, Dr. Bernard Zylstra, former Professor of Political Theory and President of the Institute for Christian Studies. Bernard Zylstra actively promoted the development of Christian political theory, and this scholarship is intended to encourage students to pursue studies in the development of Christian political theory. Candidates are Calvin students entering their junior or senior year who show evidence of Christian character and promise of growth. They must have a grade point average of 3.00 or higher. Financial need is not required. Applicants must submit a 1,200 word essay that reflects on some article by Bernard Zylstra concerning political theory. They must also provide a statement of potential career goals that indicates some relevance to political theory and of how this scholarship would help accomplish those career goals. Application available online from the Political Science Department. This scholarship is not renewable. Three scholarships of $4,000 were awarded for 2007-2008.

Pre-College Programs

Henry and Juanita Dungey Entrada Victory Scholarship This scholarship was established by Henry William and Shereice Dungey, son and daughter-in-law of Henry and Juanita, as a tribute to their love, sacrifices and encouragement in obtaining advanced levels of education. Henry and Juanita Dungey's insistence on demonstrating perseverance, embracing struggle and bringing others along in their successes has set a powerful standard in the personal and professional lives of their children, family, and others. Candidates are students entering their first year at Calvin, having completed the Entrada program. They must demonstrate financial need, perseverance, leadership and service to others, and compassion to their peers. Scholarship recipients are selected by the Office of Pre-College Programs. No separate application is required. This scholarship is not renewable. One scholarship of $1,000 was awarded for 2007-2008.

Psychology Department

John Daling Memorial Scholarship Dr. John Daling was a founder of the Calvin Psychology Department. He taught psychology from 1945 to 1974 and was a beloved professor, mentor, and friend to thousands of students. In his memory and honor, the Daling family established this scholarship. Candidates are Calvin students entering their junior or senior year who are majoring in psychology and who display demonstrated Christian commitment, excellent character, leadership, and maturity. They must have a grade point average of 3.20 or higher. Financial need is not required. Applications available from the Psychology Department. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Two scholarships of $1,400 were awarded for 2007-2008.

Cornelius A. and Lettie G. Plantinga Scholarship To honor their father and mother, the four sons of Dr. and Mrs. Plantinga, (Alvin, Leon, Terry, and Neal) have joined with other family members, friends, and former students of their parents to establish this scholarship. Dr. Plantinga taught psychology at Calvin from 1950 to 1973, and Mrs. Plantinga taught various grades in the Grand Rapids Christian and public schools,

as well as serving the Calvin Education Department as supervisor of student teachers. Dr. and Mrs. Plantinga believed in the power and beauty of Christian higher education and, particularly, of Christian higher education at Calvin. They and all their sons and most of their grandchildren graduated from Calvin. Candidates are Calvin students entering their junior or senior year, with preference given to students entering their senior year. They must be pursuing a major in Psychology and demonstrate a desire and ability to think about psychology from a Christian point of view. They must have a cumulative grade point average of 3.50 or higher and demonstrate some evidence of financial need. Applications available from the Psychology Department. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $4,900 was awarded for 2007-2008.

Alfred J. Reynolds and Bette Reynolds Goote Scholarship in Psychology This scholarship was established by Bette Reynolds-Goote in memory of her husband, Alfred J. Reynolds, esteemed and much loved member of the Calvin Psychology Department from 1965 to 1990. Strongly committed to Christian higher education, Dr. Reynolds consistently demonstrated deep concern for Calvin students and in return received many letters of thanks and appreciation. He inspired and challenged them to achieve their potential and, at the same time, demonstrated patience, compassion, and an insightful understanding of their individual differences. Candidates are Calvin students entering their junior or senior year who are majoring in Psychology, with preference given to students in statistics and research design. Financial need is not required. Applications available from the Psychology Department. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $2,800 was awarded for 2007-2008.

Vanderploeg-Edgerly Scholarship Gretchen Vanderploeg Edgerly graduated from Calvin in 1977 with a major in Psychology. She went on to obtain her Ph.D. in Clinical Psychology from Fuller Theological Seminary. Her husband, David W. Edgerly, also earned his Ph.D. in psychology from the same institution. The Edgerlys maintain a strong commitment to Christian education and Calvin. They also maintain a strong commitment to education about, prevention of, and treatment for child sexual abuse. This scholarship was established for students in the fields of psychology, sociology, and social work. Candidates are Calvin students entering their junior or senior year who are psychology majors or sociology majors who have been accepted into the Social Work Program. They must have a cumulative grade point average of 3.00 or higher. In accepting this award, the recipient will agree to write a major paper on the topic of child sexual abuse. Application available from the Psychology Department. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Two scholarships of $1,450 were awarded in 2007-2008, one to a psychology major and the other to a sociology major.

Religion Department

Dr. John H. and Gladys A. Bratt Family Scholarship This scholarship was established by the children of Dr. John H. and Mrs. Gladys A. Bratt in honor of Dr. and Mrs. Bratt and to recognize Dr. Bratt's distinguished professorship of thirty years in the Calvin Religion Department. This scholarship was established to provide recognition and financial assistance to Calvin students pursuing either parish ministry, missionary service, or a teaching career in religion. Candidates are Calvin students entering their junior or senior year who have a cumulative grade point average of 3.30 or higher and demonstrate some evidence of financial need. Application available online from the Religion Department. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Two scholarships of $1,300 were awarded for 2007-2008.

Gordon J. Spykman Memorial Scholarship The family of Gordon J. Spykman established this scholarship to honor the life, work, and convictions of Professor Gordon Spykman, who died in 1993 after teaching at Calvin for thirty-two years. This scholarship encourages students to explore the implications of Jesus Christ's claim on every square inch of creation, on all spheres of life. Candidates are Calvin students entering their junior or senior year who are pursuing a major or minor in Religion and Theology and who demonstrate an interest in the reformational worldview that Professor Spykman articulated in his writings and teaching at Calvin. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. Application available online from the Religion Department. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Two scholarships of $1,500 were awarded for 2007-2008.

Dr. and Mrs. William J. Yonker Scholarship The Yonker Fund, originally established to award prizes for student papers in the area of Jewish evangelism, now grants annual scholarships for Calvin students who intend to pursue a career in Christian ministry or missions. Candidates are Calvin students entering their junior or senior year who have a cumulative grade point average of 3.00 or higher. They must write a brief statement setting forth their aspirations or career goals for Christian missions or ministry. Application available online from the Religion Department. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Two scholarships of $1,100 was awarded in 2007-2008.

Science Division

James and Beatrice Harkema Family Scholarship Dr. James and Mrs. Beatrice Harkema of East Lansing, Michigan, established this scholarship in gratitude to God for the influence Calvin has had on their lives and on the lives of their children and grandchildren. Candidates are Calvin students entering their junior or senior year who are pursuing a degree in biomedical science (biology, biochemistry, chemistry, biotechnology, or medicine). They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. Application available from the Science Division. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Two scholarships of $2,250 were awarded for 2007-2008.

Howard Hughes Medical Institute Scholarship Candidates are students entering their first year are Calvin who plan to major in biology, chemistry, biochemistry, physics, or mathematics and who plan to pursue a career in research or post-secondary education. A high school grade point average of 3.50 or higher and an ACT composite score of at least 28 or an SAT combined score of at least 1250 is required. Application available online from the Office of Admissions and Financial Aid for prospective students. No application required for returning students. This scholarship is renewable for up to three times if the student successfully demonstrates adequate academic progress toward career goals. Students in professional programs such as pre-medicine or engineering are not eligible. Six scholarships of $2,500 were awarded to first-year students in 2007-2008.

John and Lillian Van Oosten Scholarship This scholarship was established as a result of a bequest to Calvin by the late Dr. and Mrs. Van Oosten. Candidates are Calvin students entering their junior or senior year who are pursuing a biology, chemistry, physics, geology, geography, or environmental science major. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. Application available from the Science Division. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Six scholarships of $2,500 were awarded for 2007-2008.

Steven M. Zifferblatt Memorial Scholarship Mr. Steven Michael Zifferblatt was a

man who accomplished much in his lifetime. He climbed mountains, traveled to many foreign lands, received the accolades of many, and was considered by his peers as a scientist at the top of his profession. Yet throughout his life he remained a humble man who always tried to help people live long and well, no matter what their station in life. He wanted to be remembered as a man who cared about people and one who helped people. Steven's spiritual struggles the last five years of his life made him a new and better person. He taught people how to live well and how to die at peace and with dignity. Christianity was truly a gift of faith that sustained him to the end. This scholarship combines health and spirituality, the two key elements of life, since the body should be viewed as the temple of the Holy Spirit. We must live in and with the Spirit. Candidates are Calvin students entering their senior year who are pursuing a program in one of the health care professions such as medicine, dentistry, nursing, physical therapy, etc. They must demonstrate an interest in and understanding of Christian ethics and health care. A cumulative grade point average of 3.00 or higher is required. Application available from the Science Division. Applicants will be required to write a paper on some aspect of health and of ethical issues related to health care. Recipients may apply for renewal if they plan to spend a fifth year as an undergraduate student at Calvin. Renewal candidates will be given equal consideration with other candidates. One scholarship of $5,600 was awarded for 2007-2008.

Service-Learning Center

Berg Leadership Scholarship Sigval and Martha Berg are pleased with the education that their daughters received while students at Calvin and would like to make this education available to others who demonstrate leadership ability. Calvin has been an institution that demonstrates strong academics, integrity and a pursuit of ethics fitting with the direction given by Jesus Christ in the Bible. The Berg's would like to make a scholarship available to a student that exhibits the same criteria that they have found at Calvin. Candidates are Calvin students entering their junior or senior year who demonstrate a Christian character and who have creative gifts or abilities demonstrated in leadership activities at Calvin. They must have a grade point average of 3.00 or higher. Financial need is required. Application available from the Service-Learning Center. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $2,400 was awarded for 2007-2008.

Stephanie L. Dykstra Memorial Scholarship This scholarship was established in memory of Stephanie Dykstra, a Calvin student who passed away unexpectedly on December 17, 1999, after suffering a pulmonary embolus. Stephanie left unfulfilled the typical dreams and expectations of a nineteen-year-old: vocational goals, plans for marriage, dreams for service in God's kingdom, and expectations of continued opportunities to be with family and friends. Yet, in her death, the family and friends who mourned her passing became more clearly aware that Stephanie had chosen a deeper investment than her own dreams and expectations. This scholarship was established by the family and friends of Stephanie to recognize students who are clearly storing up treasures in heaven through their service and friendship to people in local communities and thus are recognized by their friends, teachers, and mentors as people who have truly trusted in God as their only comfort in life and death. Candidates are Calvin students entering their sophomore, junior, or senior year who show dedication to the service of disadvantaged people through committed service-learning involvement and who are recognized by those who know them well as people who have entrusted their life (and treasure) to Christ. They must be in good academic standing and demonstrate some evidence of financial need. Candidates who are nominated for this scholarship will be sent an application. This scholarship is not renewable. One scholarship of $1,900 was awarded in 2007-2008.

Lighthouse Scholarship This scholarship was established in honor of the Rev. William Vander Haak who has given his life

in ministry to the Lord in the Christian Reformed Church. Rev. Vander Haak is a graduate of Calvin College and Calvin Theological Seminary and has encouraged others to attend Calvin as well. He has also served as president of the Calvin Board of Trustees and has encouraged others to give their life in service to their Lord, as he has given his. This scholarship was established by his family to assist students who show their devotion to the Lord through their acts of service to others around them. The name is taken from Matthew 5:16, "Let your light shine before men, that they may see your good deeds and praise your father in heaven." Candidates are Calvin students entering their sophomore, junior, or senior year who have a servant heart and who goes above and beyond in serving others. They must be motivated by a love for God and for people, this may be a person who often serves quietly, without recognition. They must have a cumulative Calvin grade point average of 2.50 or higher and demonstrate some evidence of financial need. Candidates are nominated by members of the Calvin Student Life Division. No application is required. Current recipients will be given preference for renewal if recommended by members of the Student Life Division. One scholarship of $1,500 was awarded for 2007-2008.

Neighborhood Service Award This award was established by friends of Calvin who have been delighted to see Calvin students volunteering in the Grand Rapids Public School system. This award was established to encourage students who are currently volunteering in some capacity with the Grand Rapids Public Schools (through the Service Learning Center) in addition to their class work at Calvin. Candidates are Calvin students entering their sophomore, junior, or senior year who demonstrate some evidence of financial need. Application available from the Service-Learning Center. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Two scholarships of $500 were awarded for 2007-2008.

Andy W. Schrier Memorial Scholarship This scholarship was established in memory of Andrew Schrier, class of 1999, by a group of Andy's friends and classmates at Calvin. They remember Andy's enthusiasm for life, commitment to neighborhood development, eagerness to form strong friendships, and sharp sense of humor. They hope that students with a similar concern for social justice and community renewal will be benefited by this scholarship. Candidates are Calvin students entering their sophomore, junior, or senior year, with preference given to students studying History, Political Science, or Social Work with an emphasis in Urban Studies or Development. A minority student or a student committed to living in an intentional community such as Project Neighborhood will be given special consideration. They must have a cumulative grade point average of 2.50 or higher and demonstrate some evidence of financial need. Application available from the Service-Learning Center. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. However, the scholarship can be renewed automatically if the recipient can provide documentation and/or verification of fifty or more hours of volunteer service or involvement with an organization dedicated to urban renewal/development. One scholarship of $1,800 was awarded for 2007-2008.

Geraldine Vogelzang Leadership Scholarship This scholarship was established by the extended family and friends of Mrs. Geraldine Vogelzang in her honor. All are alumni, friends, and supporters of the college. The scholarship is awarded to students who have demonstrated through their class work or extracurricular activities that they have a commitment to service to others and leadership within the Kingdom. The donors' intent is to allow the recipients to provide Christian service during the summer months when he or she would otherwise have had to work to earn the funds the scholarship provides. Candidates are Calvin students entering their sophomore, junior, or senior year who have a cumulative grade point average of 3.00 or higher. Financial need may be considered. The recipient is required to write a report about his or her summer experience after the experience is

completed. Application available from the Service-Learning Center. Current recipients who wish to be considered for renewal must file a new application every year and will be given equal consideration with other candidates. Two scholarships of $2,250 were awarded for 2007-2008.

Sociology and Social Work Department

Barbara Gezon Baker Scholarship for Academic Excellence in Sociology and Social Work Calvin played an important role in Barbara Gezon Baker's life. She earned her Bachelor of Fine Arts degree from Calvin and she received her Masters degree in Family Therapy from Michigan State University. Barbara's family was her focus, and the goal of her studies was to help others discover successful family relationships. In celebration of Barbara's life and memory, this scholarship was established to assist students in the Department of Sociology and Social Work. Candidates are Calvin students entering their junior or senior year who have an outstanding academic record, particularly within the Department of Sociology and Social Work. The quality of the student's written work may be considered as well. Candidates are nominated by department members. No separate application is required. Two scholarships of $2,750 were awarded for 2007-2008.

Donald and Marie Boersma Family Scholarship in Social Work The Boersma family has long believed that well-trained Christian social workers are critical to meet the needs of disadvantaged and hurting people. The family established this scholarship to recognize a promising student in the Bachelor of Social Work Program. Candidates are promising BSW students entering their junior year at Calvin. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. Application available from the Department of Sociology and Social Work. This scholarship is automatically renewable for the senior year if a grade point average of 2.50 or higher is maintained. One scholarship of $2,500 was awarded for 2007-2008.

Dr. Donald H. Bouma Scholarship in Sociology and Social Work Dr. Donald H. Bouma was Calvin's first Professor of Sociology. Dr. Bouma taught at Calvin from 1946-1960. During his tenure, both at Calvin and elsewhere, he did groundbreaking work in civil rights, community organization, and developing Christian perspectives on social problems. This scholarship was established in his memory. Candidates are Calvin students entering their junior or senior year who are pursuing a major in Sociology or Social Work. They must have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. Application available from the Department of Sociology and Social Work. This scholarship is not renewable. Two scholarships of $1,650 were awarded for 2007-2008.

Connie Bratt Social Work Scholarship Connie Bratt, one of the first students from Calvin to pursue a professional career in social work, established this scholarship in hopes of encouraging other students in the Bachelor of Social Work program. Candidates are Calvin seniors who have been accepted into the Bachelor of Social Work program and who exhibit a commitment to Christian service. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. Application available from the Department of Sociology and Social Work. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Two scholarships of $2,500 were awarded for 2007-2008.

Daniel C. Duyst Memorial Scholarship This scholarship was established by the Daniel Duyst family of Grand Rapids, Michigan, to honor the memory of Daniel's life of devoted service in law enforcement. Officer Duyst gave his life on Memorial Day 1994, at the age of thirty-seven, in a rescue attempt by selflessly responding to another's need. Candidates are Calvin students who are interested in criminal justice programs and future criminal justice work, with preference given to students entering their junior or senior year. While special consideration may be given to those who aspire to a career in law enforcement, those interested in a broad range of service opportunities in court, correction, and treatment-related roles are eligible to apply. They must dem-

onstrate evidence of Christian motivation to serve others. They must have a grade point average of 2.70 or higher and demonstrate some evidence of financial need. Students from departments (other than Sociology and Social Work) are eligible to apply. Application available from the Department of Sociology and Social Work. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $2,200 was awarded for 2007-2008.

Leanne Joy Knot Memorial Scholarship With the generous help of many friends, the family of Leanne Joy Knot, a 1991 graduate of Calvin, established a scholarship in loving memory of their daughter and sister, whose life was tragically taken in 1997 while she was a graduate student in social work and public health. Candidates are Calvin students entering their junior or senior year who are pursuing a major in Sociology or Social Work and who demonstrate a deep love for Jesus Christ, as expressed in the Reformed faith. This includes a sincere desire to (1) help children, (2) promote improved health care, education, and standards of living among the poor, or (3) volunteer in the Peace Corps. They must have a cumulative grade point average of 3.00 or higher and demonstrate some evidence of financial need. Application available from the Department of Sociology and Social Work. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Two scholarships of $1,700 were awarded for 2007-2008.

Sociology and Social Work Faculty Scholarship The faculty of the Department of Sociology and Social Work established this scholarship for departmental majors. The department has long supported the academic work of its students. With this scholarship they hope to recognize and encourage future students to continue this tradition of academic achievement. Candidates are Calvin students entering their senior year who are pursuing a major in Sociology or Social Work. They must have a grade point average of 3.30 or higher and demonstrate some evidence of financial need. Application available from the Department of Sociology and Social Work. This scholarship is not renewable. One scholarship of $1,400 was awarded for 2007-2008.

Richard and Janice Van Deelen Scholarship Mr. Richard and Mrs. Janice Van Deelen established this scholarship because of their love for Calvin and the Christian education it provides its students. Generations of their family have attended and graduated from Calvin. Janice has had a career in Christian education as an elementary school teacher and Richard has been in Christian adoption work his entire career. The Van Deelens have a strong desire for others to receive an excellent Christian education and the opportunities it brings for Christian service. Candidates are Calvin students entering their junior or senior year who have been adopted, have a special interest in adoption, or are interested in working with children. They must be committed to the pro-life position on the issue of abortion. They must also have a grade point average of 3.00 or higher and demonstrate some evidence of financial need. Application available from the Department of Sociology and Social Work. This scholarship is automatically renewable if the student maintains a grade point average of 3.00 or higher and continues to demonstrate an interest in adoption and/or working with children. Two scholarships of $1,500 were awarded for 2007-2008.

Vanderploeg-Edgerly Scholarship Gretchen Vanderploeg Edgerly graduated from Calvin in 1977 with a major in Psychology. She went on to obtain her Ph.D. in Clinical Psychology from Fuller Theological Seminary. Her husband, David W. Edgerly, also earned his Ph.D. in psychology from the same institution. The Edgerlys maintain a strong commitment to Christian education and Calvin. They also maintain a strong commitment to education about, prevention of, and treatment for child sexual abuse. This scholarship was established for students in the fields of psychology, sociology, and social work. Candidates are Calvin students entering their junior or senior year who are psychology majors or sociology majors who have been accepted into the Social Work

Program. They must have a cumulative grade point average of 3.00 or higher. In accepting the award, the recipient will agree to write a major paper on the topic of child sexual abuse. Application available from the Department of Sociology and Social Work. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. Two scholarships of $1,450 were awarded in 2007-2008, one to a psychology major and the other to a sociology major.

Mary E. Vanden Bosch Zwaanstra Scholarship in Social Work and Gerontology Mary Vanden Bosch Zwaanstra established this scholarship to promote scholarship and interest in gerontological social work and to encourage students to consider seriously the strengths and challenges of elderly persons in a youth oriented culture. She wishes to honor the lives and contributions of the elderly and desires to reward students who choose to practice professionally in this area. Candidates are Calvin students entering their junior or senior year, with preference given to seniors. They must be committed to the field of gerontology and principles of social justice, as demonstrated by personal aptitudes and testimony, backed by actions (volunteer service and/or work experience) and their intentional choice of a field placement in gerontology in the senior year. They must be making satisfactory academic progress. Financial need is not required. Application available from the Department of Sociology and Social Work. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $1,000 was awarded for 2007-2008.

Spanish Department

Edna Greenway Scholarship Dr. Edna Greenway has taught students from elementary school through seminary to speak and love the Spanish language. The Spanish Department has honored her with an endowed scholarship so that future generations of students will benefit from her Reformed Christian perspective on teaching and learning, even after she has retired. This scholarship encourages students to reflect on and articulate the importance of the integration of faith in their own lives and careers. Candidates are Calvin students entering their junior or senior year who are in the process of pursuing a Spanish Education major. They must have a grade point average of 3.30 or higher. Financial need is not required. A short essay is required for this scholarship and instructions may be picked up from the bulletin rack in the Spanish Department. This scholarship is not renewable. One scholarship of $2,100 was awarded in 2007-2008.

Student Life Division

William and Betty Vogelzang Achievement Scholarship As a high school student prior to World War II, Bill Vogelzang admits that he focused on the non-essential aspects of his education and did not apply himself to the level that he was capable. He thought that he had blown his opportunity to attend college because of less-than-stellar high school performance. But a college dean looked Bill straight in the eye, saw the potential of a new attitude and gave him a chance to excel in college when his high school record would not have predicted this would happen. Bill's wife, Betty, who passed away in 1996, was the daughter of a home missionary who had an interrupted high school experience and never saw college as a possibility. He now wishes to honor his beloved spouse by establishing this scholarship to support and reward students who have demonstrated significant improvement over the four years of their Calvin experience. Bill realizes that the transition to Calvin from high school may be very difficult for some students, and through this award wished to say "Well done, thou good and faithful servant" to someone who realizes their shortcomings and makes a concerted effort to make their Calvin experience a success. Candidates are Calvin students entering their senior year who are pursuing any major or degree. They must demonstrate significant academic improvement and have overcome obstacles, embody Christian witness and character, insight, work ethic, and contribute to the life of the college. Financial need is required. Application available

from the Student Life Division. Current recipients who wish to be considered for renewal must file a new application each year and will be given equal consideration with other candidates. One scholarship of $2,100 was awarded for 2007-2008.

Need-Based Financial Aid

Significant need-based financial aid is available to students from Calvin, the federal government, and various state and provincial governments.

Applications for need-based aid must be filed each year. Calvin uses the FAFSA (Free Application for Federal Student Aid) to determine initial need-based eligibility. Additional information may be required to complete the financial aid application process at Calvin. Information about the criteria used to determine eligibility for need-based aid is available from the Office of Admissions and Financial Aid.

First-year applications for financial aid should be filed by February 15 (April 1 for Canadians) and upper-class applications should be filed by March 1 (April 1 for Canadians) to receive maximum consideration. Later applications are considered if funds are available.

Calvin and Knollcrest Grants The college established a program of scholarship and grant assistance for students who have financial need but are not eligible for other grant programs or whose need cannot be met with other grant programs. Awards range from $200 to as high as $13,500, depending on need and other financial aid received. The program is open to undergraduate students only.

Calvin Grants for Off-Campus Programs The college provides need-based grants to students enrolled in off-campus courses when there is additional cost involved. This includes off-campus interim courses as well as selected programs for the semester or academic year where the cost is higher than for a student on campus. The amount of the grant depends on the amount of the additional cost involved and on the student's financial need. The maximum grant is determined annually and was $900 for 2006-2007.

Calvin Exchange Grant for Canadian Students An exchange adjustment program has been established by the college to offset, in part, the additional costs encountered by Canadian students resulting from the exchange on Canadian funds. The amount of the Exchange Grant, up to $4,000, is based on the actual cost of tuition, room and board charges at Calvin after all grants and scholarships are considered. This adjustment is awarded automatically to those who apply for need-based aid. Others who wish to receive the grant should file a separate application form.

Federal Academic Competitiveness Grant An Academic Competitiveness Grant will provide up to $750 for the first year of undergraduate study and up to $1,300 for the second year of undergraduate study to full-time students who are eligible for a Federal Pell Grant and who have successfully completed a rigorous high school program, as determined by the state or local education agency and recognized by the Secretary of Education. Second year students must also have maintained a cumulative grade point average of at least 3.00.

Federal College Work-Study Program Students who need employment to help pay for college expenses are eligible for employment by Calvin or in approved off-campus agencies under this federally supported program for U.S. citizens. The student's eligibility depends on financial need.

Federal Direct Loan Program The federal government provides loans through this program to U.S. citizens and eligible noncitizens to assist with educational expenses. Loans are available ranging from $3,500 to $5,500 per year for dependent students, depending on class level, and in larger amounts for independent students. The loans are interest-free while the student is in school for those who qualify based on need. Students who do not qualify based on need may receive a loan also, but interest accrues during the in-school period. Interest rates are available and capped at 8.25%. Repayment of principal begins after the borrower graduates or ceases to be at least a half-time student, with the monthly payment and the length of the repayment period dependant upon the size of the loan

and the repayment plan chosen. Limited loan cancellation options are available for teachers in specified geographical locations and specific areas of study.

Federal National Science and Mathematics Access to Retain Talent (SMART) Grant A National SMART Grant will provide up to $4,000 for each of the third and fourth years of undergraduate study to full-time students who are eligible for a Federal Pell Grant and who are majoring in physical, life, or computer sciences, mathematics, technology, or engineering or in a foreign language determined critical to national security. The student must also have maintained a cumulative grade point average of at least 3.00 in coursework required for the major.

Federal Pell Grants The Pell Grant Program, funded by the federal government for U.S. citizens and permanent residents of the U.S., is designed to provide grant assistance of up to $4,310 per year (2007-2008) to students whose parents' income is approximately $40,000 or less. Since there are factors other than income considered in the evaluation, some families with an income above $40,000 may qualify for the program, and others with a lower income may not qualify. Only students in undergraduate programs are eligible.

Federal Perkins Loans This program, sponsored by the federal government for U.S. citizens and permanent residents, provides long-term loans to students with financial need. There is no interest charge on the loan, and repayment can be deferred as long as the borrower is enrolled in college at least half time. Repayment begins nine months after the borrower ceases to be at least a half-time student, and the interest rate during repayment is 5 percent simple interest. The minimum repayment is $120 every three months, with a maximum repayment period of ten years for loans which require larger payments. Under certain conditions, repayment and interest can be deferred and, in some cases, all or part of the loan may be cancelled.

Federal Supplemental Educational Opportunity Grant This program, funded by the federal government, provides funds to the college for needy students. These grants are awarded to students who qualify for need-based aid but are not eligible for or do not receive enough grant assistance in the Pell and State Grant programs. Recipients must be U.S. citizens or permanent residents of the U.S. and must be enrolled in an undergraduate program. Federal Pell-eligible students at Calvin receive between $800 and $2,000 based on financial need. The federal maximum is $4,000 per year.

Michigan Adult Part-Time Grant Program This program provides a limited amount of grant assistance to needy adult Michigan students who are enrolled in an undergraduate program on a part-time basis. To be eligible, a student must have been out of high school at least two years, be enrolled for at least three but fewer than twelve semester hours, and qualify for financial aid as an independent student. Grants of up to $600 per year are available for not more than twenty-four months of study. When there is not enough money to provide awards to all eligible applicants, preference is given to those with the greatest financial need.

Michigan Competitive Scholarships and Tuition Grants The State of Michigan provides awards of up to $2,100 (2006-2007) to Michigan residents attending eligible institutions in the state. Competitive scholarships are awarded on the basis of ACT scores and need and can be used in both public and private colleges in the state. Tuition grants are awarded solely on the basis of need and can be used only at private colleges. Competitive scholarships are available only to undergraduate students; tuition grants are available for graduate as well as undergraduate work.

Michigan Nursing Scholarship The Michigan Nursing Scholarship is a $4,000 award available to Michigan residents enrolled in Calvin's Nursing Program. A limited number of scholarships are available each year based on funding made available by the state. Students must apply for consideration each year. Students receiving a scholarship have to agree to work as a direct patient care nurse in an eligible Michigan facility one year for each year of assistance. Failure to fulfill the work commitment will

result in the scholarship becoming a loan that must be repaid.

Canada Student Loans The Canadian government sponsors an interest-free loan program for Canadian citizens similar to the Federal Direct Loan Program described above, with a maximum loan of $5,600 to $6,400 per year (Canadian), depending on the province. Application forms are available from provincial Offices of Education.

Other Student Awards

Beets Calvinism Award The late Dr. and Mrs. Henry Beets established a fund, the income from which is used to award two prizes for the best research papers on annually specified themes in Calvinism studies, written by Calvin students. The prize or prizes are awarded at the discretion of the Department of Religion.

Henry Beets Mission Society Scholarship The Henry Beets Mission Society of the La Grave Avenue Christian Reformed Church provides an annual grant to promote the ministry of the Church to the American Indian. Initial funds for this grant were given by the Herrick Foundation of Detroit, Michigan. Those eligible are American Indians who intend, preferably, to minister as pastors or teachers to members of their own race. The amount of the grant is determined by the need of the student. The student should consult with the registrar to plan a program. Candidates should apply in writing to the Henry Beets Mission Society, La Grave Avenue Christian Reformed Church, 107 La Grave Avenue, Grand Rapids, Michigan 49503.

Beversluis Awards in Christian Philosophy of Education From income generated by a gift from a retired professor of educational philosophy and his wife, four monetary awards are offered each year by the Education Department to students nominated by their professors for outstanding interest and competence in keeping good theorizing about Christian education connected to good practice in Christian education. Criteria include a grade point average of 3.50 or higher, significant initiative and contributions in classroom discussions, and outstanding written work in papers and tests.

Paul Boonstra Memorial Award Each year the Department of Mathematics and Statistics makes an award in memory of Professor Paul Boonstra who taught mathematics education at Calvin from 1965 through 1987. The prize is awarded to a graduating senior specializing in mathematics education at the secondary level. The recipient is selected on the basis of performance in mathematics courses and in directed teaching. The award represents the income from a fund established by students and colleagues of Professor Boonstra.

O. K. Bouwsma Memorial Award in Philosophy Through the generosity of the widow of Professor O.K. Bouwsma and other benefactors, an annual prize will be awarded to one upper-class student for distinguished achievement in philosophy and promise of future contribution to Christian scholarship. The Philosophy Department selects the recipient on the basis of submitted papers.

Calvin Alumni Chapter Scholarships Several Alumni Association chapters offer scholarships, which are administered locally, some to incoming Calvin first-year students and others to returning students. For additional information contact your local Calvin Alumni chapter or visit the Calvin Alumni website at http://www.calvin.edu/alumni/scholars/chapter.htm.

Calvin Latin Award The Department of Classical Languages has received donations from alumni David Noe and Marianne Graff to provide a yearly award to the outstanding student of Latin language and literature at Calvin. The winner is selected by the Classical Languages Department and receives recognition on a plaque as well as a prize book. All current students of Latin are eligible for this award.

Chemistry/Biochemistry Outstanding Senior Awards Departmental awards are presented each year to outstanding graduating seniors with a major in Chemistry and/or Biochemistry. Criteria are outstanding achievement in academics and research, service to the department, and potential for excellence in Christian service.

The Classical Association of the Middle West and South Award The Department of

Classical Languages has been authorized to give an award in the name of the Classical Association of the Middle West and South, in recognition of an outstanding student of Greek, Latin or Classical Studies. The award consists of a gift from CAMWS as well as a certificate of achievement; the student's award is also noted on a plaque in the department library.

John De Bie Prize in History In memory of Professor John De Bie, an annual prize of $100 is awarded for the best paper in history written by a Calvin student. Selection is made by the History Department faculty from submitted papers.

William B. Eerdmans Literary Award The late Mr. William B. Eerdmans, Sr. established the William B. Eerdmans Literary Award in the interest of encouraging original, critical, and creative writing among Calvin students. This award is administered annually by the English Department.

Geology/Geography Outstanding Graduating Senior Award Departmental awards are presented each year to the outstanding graduating senior with a major in Geology and/or Geography. The recipients are selected by the departmental faculty.

Dr. Peter D. Hoekstra Memorial Award Dr. Robert G. Andree and Mrs. Katherine Schuringa Andree have established a prize of $1,000 to be awarded annually to an outstanding senior graduating with a major in history. The award is made in memory of the late Dr. Peter D. Hoekstra, a former professor of history at Calvin. Selection is made by the faculty of the History Department on the basis of academic excellence. The recipient must have completed at least two years of undergraduate work at Calvin.

Dr. Roger A. and Bradley Hoekstra 'Toward Christian Excellence in Medicine' Award Roger A. Hoekstra, M.D., an alumnus and supporter of Calvin, and his son, Bradley J., an outstanding sophomore premedical student at Calvin, were tragically killed in an airplane accident in July 1981. In their memory, the Hoekstra family established a scholarship fund, a part of whose income is used for an annual award to an outstanding senior premedical student. The award consists of a cash gift and an appropriate commemorative plaque. The candidate for the award will be nominated and selected by a faculty committee. The candidate must be a graduating senior who has completed more than two years of undergraduate work at Calvin and has been accepted into an accredited medical school. The award will be based on academic excellence, strength of Christian character, and potential for excellence and Christian service in the practice of medicine.

Harmon D. Hook Memorial Award in English An award is offered each spring to an English major who has indicated a serious interest in English or American language and literature and whose work in the discipline gives evidence of personal enrichment and promise of future service. To be considered, a student should have demonstrated not only academic competence but also such qualities as an interest in humane letters and a Christian concern for cultural and spiritual growth through literature. The English Department selects the person to receive the award.

Institute of Management Accountants (IMA) Outstanding Accounting Student Award The local chapter of the IMA annually recognizes the top accounting student at Calvin, based on a recommendation by the instructors in accounting. The student should intend to pursue a career in accounting.

Rinck Memorial Prize A fund has been established by former students and friends as a memorial to William Rinck, professor of mathematics at Calvin from 1905 to 1920. The income of this fund is devoted to an award for outstanding work in mathematics. The prize is awarded annually to a senior student majoring in mathematics who has, in the opinion of the Department of Mathematics and Statistics, done superior work in undergraduate mathematics.

String Instrument Award from the Cayvan Collection Mr. and Mrs. Leo L. Cayvan were long-time supporters of the Calvin Music Department. As part of their estate planning, they contributed a small number of professional quality instruments that are made available to students as non-monetary scholarship awards. Incoming and returning students are eligible for these

awards, which are based on achievement and need. The awards are renewable, pending review by a Music Faculty committe. Students who are awarded these Llewellyn L. Cayvan Violin, Viola, Cello or String Bass Awards are expected to perform with the Calvin Orchestra and take private lessons for credit in the medium for which the award is granted during the year the scholarship is used. Contact the Music Department for mroe information.

Templeton Student Award in Psychology The John Templeton Foundation has given a Science and Religion Course Award to support the teaching of Psychology 399, Psychology and Religion, the upper-level integration course in psychology. From this endowment, a cash award may be given to psychology majors who write excellent course papers in fulfillment of the requirements of this course each time the course is taught.

Bernard J. TenBroek 'Excellence in Biology in Research' Award At the time of his retirement from teaching, the Biology Department established the TenBroek Award fund. This award is given to a student completing the senior year of study who has declared a major in biology and has completed at least three of these years at Calvin. The recipient must have demonstrated ability to do investigative work in the biological sciences and be completing application for graduate studies.

Bernard J. TenBroek 'Excellence in Biology in Secondary Education' Award At the time of his retirement from teaching, the Biology Department established the TenBroek Award fund. This award is given to a student completing the senior year of study who has declared a major in biology and has fulfilled the requirements for certification in secondary education. The student must have completed at least three years of study at Calvin to be eligible for this award.

Ten Hoor Award This prize was established several decades ago though a donation by the Ten Hoor family in order to acknowledge a Calvin student who contributes in a significant way to the study of Dutch language and culture.

Vander Ark Distinguished Teacher Education Student Award The Vander Ark family, known for the number of family members who have served as teachers and administrators, sponsors annually an award by the Education Department to outstanding student teachers who are nominated by their instructors for superior performance in student teaching and course work. The awards will be announced by May 1 of each year.

Zondervan Greek Award The Zondervan Corporation has established a yearly award for the outstanding student of ancient Greek language and literature at Calvin. The winner is selected by members of the Classical Languages Department and receives recognition on a plaque as well as books and other materials from Zondervan; names of winners are also listed on Zondervan's website. All current students of Greek are eligible for consideration of this award.

Summer Fellowships

Summer fellowships in the natural sciences and in the social sciences and humanities give students an opportunity to work alongside faculty for ten weeks on current research projects. They receive hands-on experience performing original research and working on a significant problem which requires observational, creative, analytical, and synthetic thinking. A faculty member provides personal mentoring. At the completion of the project, students may present their findings in poster sessions and professional meetings or co-author a scientific paper in a professional journal.

The Jubilee Fellowship Program is designed for twelve promising students who are strongly inclined toward spiritual leadership and Christian ministry. Fellows do a ten-week summer internship in "an outstanding teaching congregation" and commit to mentor or lead in one of Calvin's ministry-related opportunities throughout their senior year. Jubilee Fellows receive a $4,000 fellowship as well as $1,000 to cover summer internship living and travel expenses.

Fellowships in the Natural Sciences

Calvin Nursing/Camp Tall Turf Fellowship. Motivated by a desire to leverage the commu-

nity focus of Calvin's Nursing Program with Camp Tall Turf's vision for reconciliation to change the lives of inner city children. Calvin alumni are contributing to a fellowship that supports a nursing student working at Camp Tall Turf during the summer.

Thedford P. Dirkse Summer Research Fellowship. Dr. Brandon and Mrs. Patricia Wiers established this fellowship to support student summer research in the Chemistry Department. It honors Dr. Thedford Dirkse, who served as a professor in the Chemistry Department from 1947 to 1980 and served as Dr. Wier's research mentor. The fellowship is for a student majoring in chemistry or biochemistry.

Jansma Student-Faculty Research Fund in the Sciences. Sid and Joanne Jansma, alumni who have been long-term supporters of Christian education, majored in the natural sciences, and pursued careers in geology and nursing, wish to encourage excellent students to consider careers in science research and teaching. This fellowship gives students an opportunity to gain research experience beyond what they can get during the academic year. Several fellowships will be awarded annually.

Jack and Lois Kuipers Student Research Fellowship in Applied Mathematics. Professor Jack and Mrs. Lois Kuipers established this endowment in 2000 to further the field of applied mathematics at Calvin College. Professor Kuipers taught at Calvin for 20 years in department of Mathematics, and his research specialized in the field of applied mathematics. This endowment is designed to encourage students and faculty to devote time and research to the field of applied mathematics.

Pfizer Student Research Fellowship in Chemistry, Biochemistry, and Chemical Engineering. In recognition of the quality of Calvin's science program and the importance for student research in preparing young people for careers in industry, Pfizer established this fellowship to encourage students in these fields.

Fritz and Carol Rottman Student Research Fellowship. Dr. Fritz Rottman directed the program in molecular biology at Case Western Reserve for many years. When he and his wife, Carol, retired to Michigan, they established this fellowship to take place at Flat Iron Lake Nature Preserve, a parcel of natural and restored habitat in Oakfield Township that they are deeding to Calvin. The fellowship will support a student performing baseline biodiversity inventories, as well as management work in restoration ecology.

Harvey Rozema Student Research Fellowship. A bequest from Mr. Rozema, given in appreciation for what Calvin College has contributed in terms of academic excellence combined with Christian commitment, supports this fellowship. Mr. Rozema wanted to encourage Calvin in equipping young people to make a contribution to society, and he saw students' research under faculty mentoring as playing a valuable role in that process.

Clarence (Bud) and Arlene Talen Star Student Research Fellowship. Mr. Clarence (Bud) Star and Mrs. Arlene Talen Star established this student research fellowship. They are particularly interested in supporting students whose study and research use the Student Cell Culture Laboratory in the John "Doc" De Vries Hall of Science. This fellowship will be awarded on a combination of academic interest, academic merit, and career objectives.

Dr. Daniel J. Visser Student Research Fellowship in the Medical Sciences. To encourage and support promising students in the sciences, Dr. Earl and Mrs. Gertrude Visser and their family established a student research fellowship in memory of their son, Dr. Daniel J. Visser. The annual award will be made based on a combination of academic interest, merit, and career objectives to a qualifying student planning to pursue a career in medicine.

Enno Wolthuis Student Research Fellowship in Chemistry/Biochemistry. Dr. Wolthuis taught in the chemistry department for 29 years after working in the chemical industry for 12 years. He loved laboratory research, and many of his publications had student co-authors. A bequest from his estate makes this research opportunity possible for students.

Davis Young Student Research Fellowship in Geology. Dr. Young, Calvin's second faculty member in Geology, had a decisive influence on the identity and development of this program. His work at Calvin demonstrated extraordinary scholarly output, meticulous writing, dedicated teaching and mentoring of students, and tireless promotion of the importance of the earth sciences. This fellowship was established by his students and colleagues on the occasion of his retirement.

Fellowships in Social Sciences and Humanities

Alumni Summer Research Fellowship in Business, Economics, and/or Asian Studies. Over the course of a 25-year career in industry, a Calvin alumni family has lived and worked in many locations in the U.S. and abroad—including ten years in Asia. During this time they gained an appreciation of how international business can positively impact local communities and how private industry can contribute to developing economies. In order to encourage the growth of Calvin's programs in business, economics, and Asian studies, and to encourage students to consider the use of their talents in those fields, the family has established this summer research fellowship.

Jansma Student-Faculty Research Fund in Business. Sid and Joanne Jansma, alumni who have been long term supporters of Christian education, wish to encourage excellent students to seriously consider careers in business. Through this fellowship they want to give students an opportunity to gain business experience beyond what they can get during the academic year. At least one fellowship will be awarded annually.

Max and Carol Van Wyk Student-Faculty Research Fund in the Humanities and Social Sciences. Max and Carol Van Wyk have been long-term supporters of Calvin College and wish to continue their support by establishing an endowment fund to support student-faculty research in the humanities and social sciences.

Jubilee Fellowships

The Clarence and Marian Huizenga Jubilee Fellowship Clarence and Marian Huizenga have been faithful supporters of Calvin College. They appreciate the academically excellent education provided by Calvin and established this fellowship to recognize the continuing value of such education. They hope to see the Jubilee Fellows Program stimulating, encouraging, and challenging Calvin students to pursue careers in Christian ministry leadership, thus bringing the voice of Christ to the wide world.

Dan and Gertrude Vos Jubilee Fellowship. Mr. Dan and Mrs. Gertrude Vos have always had a deep love for the church and the seminary. To help meet the needs of the church, the Voses are interested in encouraging young people to pursue seminary training so that they can bring the voice of Christ to a wider world. They look forward to seeing the Jubilee Fellows Program stimulate and challenge students to pursue careers in the ministry. Candidates should be a junior or a senior planning to attend Calvin Theological Seminary.

Westerbeek Family Jubilee Fellowship. Mr. Jack and Mrs. Nita Westerbeek and their family have been faithful supporters of programs involving evangelism and outreach. They look forward to seeing this Jubilee Fellowship Program stimulate and challenge Calvin College students to pursue careers in the ministry.

Isaac and Betty Williamson Jubilee Fellowship. Mr. Isaac and Mrs. Betty Williamson made provision for Calvin College in their estate plans. Their wishes were for these funds to be used in support of students who will bring the Gospel to those who have not yet heard or accepted it. To that end Calvin College has established the Isaac and Betty Williamson Jubilee Fellowship to assist students whose career goals are in ministry or missions.

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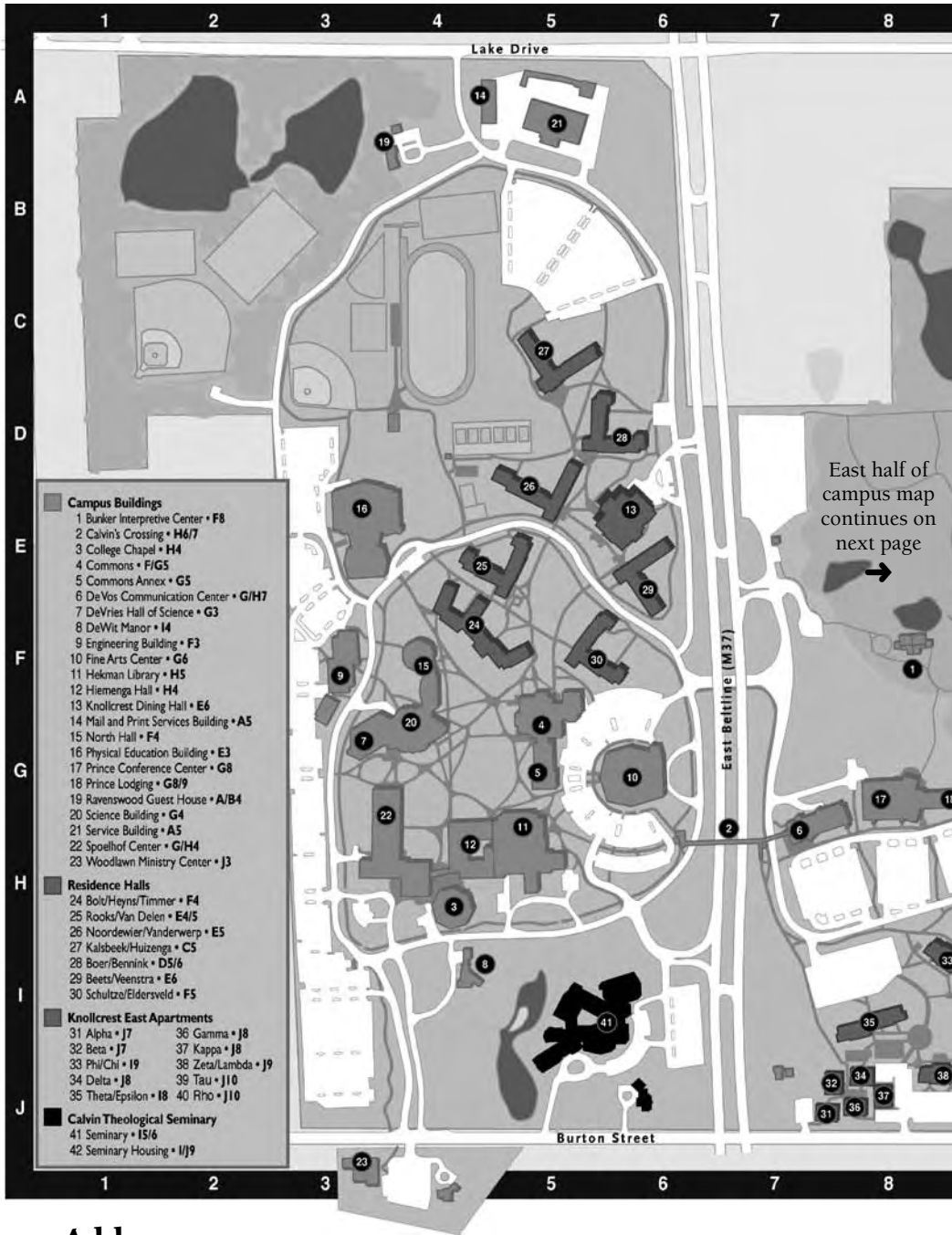

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Although each office and student room has its own phone number, any office or room can be reached through the general college and seminary phone number: (616) 526-6000. The FAX number for the college is: (616) 526-8551.

West half of campus map continues on previous page ←