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2004–2005

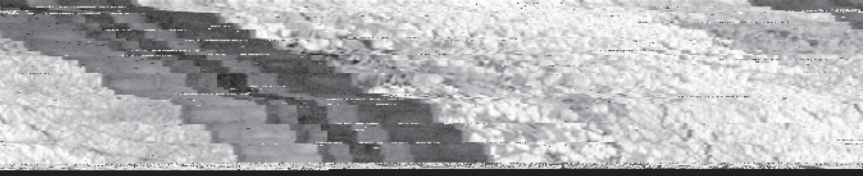
Important Deadlines for Students	Fall Semester	Spring Semester
Final day to add classes	<i>September 13</i>	<i>February 4</i>
Final day to remove incompletes from the previous semester	<i>October 15</i>	<i>March 15</i>

Academic Calendar

The Fall Semester 2004

September	1	Wednesday	Faculty conference
	1	Wednesday	Residence halls open
	1-4	Wed – Sat	Orientation and registration
	7	Tuesday	First semester classes begin 8:00 a.m. Convocation 9:50-10:50 a.m.
October	26-27	Tues – Wed	Academic Advising recess
	26	Tuesday	Registration for interim and spring semester begins
November	24	Wednesday	Thanksgiving recess begins at 10:00 p.m.
	29	Monday	Classes resume 8:00 a.m.
December	10	Friday	Classes end at 10:00 p.m.
	11	Saturday	Reading recess
	13	Monday	Examinations begin 9:00 a.m.
	17	Friday	Examinations end and Christmas vacation begins 10:00 p.m.

The Interim 2005



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 life-long 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, com-

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 BrÈges, 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 most stimulating, challenging, and exciting experience. Students explore new ideas, develop new skills, wrestle with difficult topics, and establish life-long 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 that abound at Calvin. Simply put, the Student Life Division finds joy in facilitating a rigorous, yet Christ-centered learning environment in which students can flourish. As our mission states above, we desire students to become different persons between the time they enter Calvin and the time they leave. We hope that they will love the things God loves and be leaders in the places that God will call them.

The Student Life Division, eager to help students develop their gifts and interests, is made up of seven departments: Broene Counseling Center, Campus Safety, Career Development, Chaplain's Office and Campus Worship, Health Services, Residence Life, and Student Development. With over 60 creative, dedicated staff members, along with commensurate facilities, 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/admin/student_life/. Here are the ways each of these areas are poised to work with you:

Broene Counseling Center

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 is 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 a.m. to 5 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. The Broene Counseling Center offers comprehensive and high-caliber services in a confidential manner.

Campus Safety

Career Development

The Career Development Office at Calvin College exists to assist students, staff, and graduates of the College in their vocational considerations, career planning, and career

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.

For more detailed information about the Lilly Vocation Project visit the project web site at www.calvin.edu/vocation.

Health Services

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 handled individually by the Housing Office and are granted for students commuting from their parents' place of residence, students who are 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 Develop-

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 accord 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.

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

The following components must be included in the applicant's college preparatory work:

1. A minimum of three years of college preparatory courses in English.
2. Three years of college preparatory mathematics are required.
3. A minimum of two years of college preparatory courses in **two** of the following fields:
Social Sciences, Languages, Natural Sciences
4. Students must also complete three years of study from **one** of the following fields:
Social Sciences, Languages, Natural Sciences

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	3 years of college preparatory mathematics is required. 4 years are desirable for students entering mathematics related majors.
Foreign language	2 years	Preferably four; ideally the last unit in grade 12.
Science	2 years	Biology, chemistry, or physics; one with a laboratory. Chemistry and biology are recommended to prospective nurses. Three units are desirable for students considering programs in the sciences or health fields.
History/Social Sciences	3 years	
Electives	3 years	Keyboarding and college preparatory courses.

Admission Under Special Conditions

Applicants with high school or college records or with ACT/SAT I test scores that do not meet regular admission standards may be admitted on condition if there is other evidence of academic promise. Conditionally admitted students are required to participate in the Access Program and to take assigned placement tests. They will receive special advising and may register for no more than 15 semester hours including any Access Program courses. 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 I test 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 4-year institution is 2.0 and from a 2-year college, 2.5. Applicants with averages below the standard, or with lower scores, or with fewer college preparatory courses in their high school program 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.)

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

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 testing results. International students for whom English is a second language can satisfy the graduation requirement of additional language study with their native language.

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.

Enrollment Deposit

An enrollment deposit of \$300 is required of all enrolling first-year, transfer, and readmitted students. This deposit serves as a confirmation of the student's plans to enroll and is applied toward the orientation fee and housing deposit (for students living on campus). The remainder is applied to the student's account. First-year students from the U.S. must pay this deposit by May 1. The due date for Canadian and 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. International students are required to pay an enrollment deposit of \$4,000 toward their first year costs.

Entrance Examination Information

Prospective first-year students are advised to take the ACT or SAT I entrance examination during the spring semester of their junior year or in the fall of their senior year. Candidates for entrance examinations must register for them at least one month prior to the testing dates.

The American College Test (ACT) is normally given five times per year. Registration forms are generally available from high school principals and counselors, but may be requested from the American College Testing Program, Box 168, Iowa City, Iowa 52240. This

The five-year graduation rate for entering first-year students is 72%; most finish a degree in four-years carrying a normal course load. The first to second year retention rate is 87%.

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**

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 \$205 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 \$310 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 \$205 per credit hour for the audited course.

The audited course is listed on the student's academic transcript, but no credit or grade 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 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 high school 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 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 also 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 I. 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.

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.

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:

<i>Cumulative total of semester hours attempted</i>	<i>Minimum cumulative grade point average needed for continuation</i>	<i>Minimum cumulative grade point average needed for good standing</i>	<i>Minimum percent of attempted hours, which must be credited for good standing</i>
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

- 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.





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

- | | | |
|--|------------------|--------------|
| <input type="checkbox"/> Developing a Christian Mind | one course from: | IDIS W50/150 |
| <input type="checkbox"/> First-Year Prelude | one course from: | IDIS 149 |

CORE COMPETENCIES

- | | | |
|--|------------------|--|
| <input type="checkbox"/> Written Rhetoric | one course from: | ENGL 101 |
| <input type="checkbox"/> Research & Information Technology | one course from: | IDIS 110; ENGR 101 |
| <input type="checkbox"/> Rhetoric in Culture | one course from: | ART 153; CAS 101,140,
141, 143, 214; IDIS 214 |
| <input type="checkbox"/> 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.

- | | | |
|---|-----------------------|---|
| <input type="checkbox"/> Foreign Language | one of the following: | FREN 113, 123, 202;
GERM 123, 202; GREE
202, 203, 205, 206, 207;
LATN 202, 205; CHIN
202; JAPN 202; DUTC
202; SPAN 123, 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).

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
110, 113, 133, 134, 212,
221, 223, 235

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 1 Science Core at Calvin).

Students who have taken at least 3 years of high school science (excluding Physical or

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.

<i>Total courses in two majors</i>	<i>Maximum overlap permitted</i>	<i>Minimum # of distinct courses required</i>
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 I scores, and recommendations. Enrollment, by means of this program, is limited each year to a specific 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 review course work is necessary in either or both areas. All Access students are required to take ASC 006: College Thinking and Learning. This course, a 2 semester hour, non-credit course, is taken concurrently with a reading-lecture course in which the student learns to apply what is taught in ASC 006.

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

The Adult and Continuing Education Program

Core Curriculum and
Special Academic Programs

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 in 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 in the *Honors Program Handbook*, available on the website. Regular interim courses with honors grades are not considered honors courses. Students must apply for admission to the departmental honors program in their major after completing at least two honors courses in the general curriculum and earning a cumulative GPA of 3.3 or higher. 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, K. Bratt (Classics Department), or see the web page 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. Although Calvin College offers no degree in architecture, a student can focus individual gifts and abilities within the architectural field by taking a liberal arts undergraduate program in art, art history, business, communications, engineering, geography, history, philosophy, environmental science, sociology, political science, or other related fields. Any one of these programs, with carefully chosen electives, can prepare the student for entry into a graduate program for the master of architecture as a first professional degree. Four years of high school math is recommended, since at least one course in Calculus and Physics 221 and 222 are required. Students interested in such a program should consult with C. Young of the Department of Art.

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.

Medicine and Dentistry

Students planning to enter the pre-medical or pre-dental programs should consult P. Tigchelaar, of the 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, but Mathematics 161-162 is required by some medical 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 the medical or dental school during the summer prior to

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 must

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:

	<i>Semester hours</i>
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

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. As an example, the courses required by the Ferris State University College of Pharmacy in Big Rapids, Michigan are shown below:

	<i>Semester hours</i>
Biology 141 and 242	8
Biology 207	4
Chemistry 103 and 104	8
Chemistry 261 and 262	10
Mathematics 132 or 161	4
Mathematics 143	4
English 101 and 201 or 205	6
Economics 151	3
Communication Arts and Sciences 101 or 240	3
Psychology 151 or Sociology 151	3
Art, Music, History, Literature, Philosophy, Religion	9

These courses may be completed in two years; however, other schools may require courses in anatomy, physiology, and physics, which could increase the length of the pre-pharmacy program to three years. Students should consult the American Association of Colleges of Pharmacy website (www.aacp.org) and work with the pre-pharmacy advisor, J. Ubels, to plan a course of study appropriate for the pharmacy schools to which they intend to apply. 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. 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

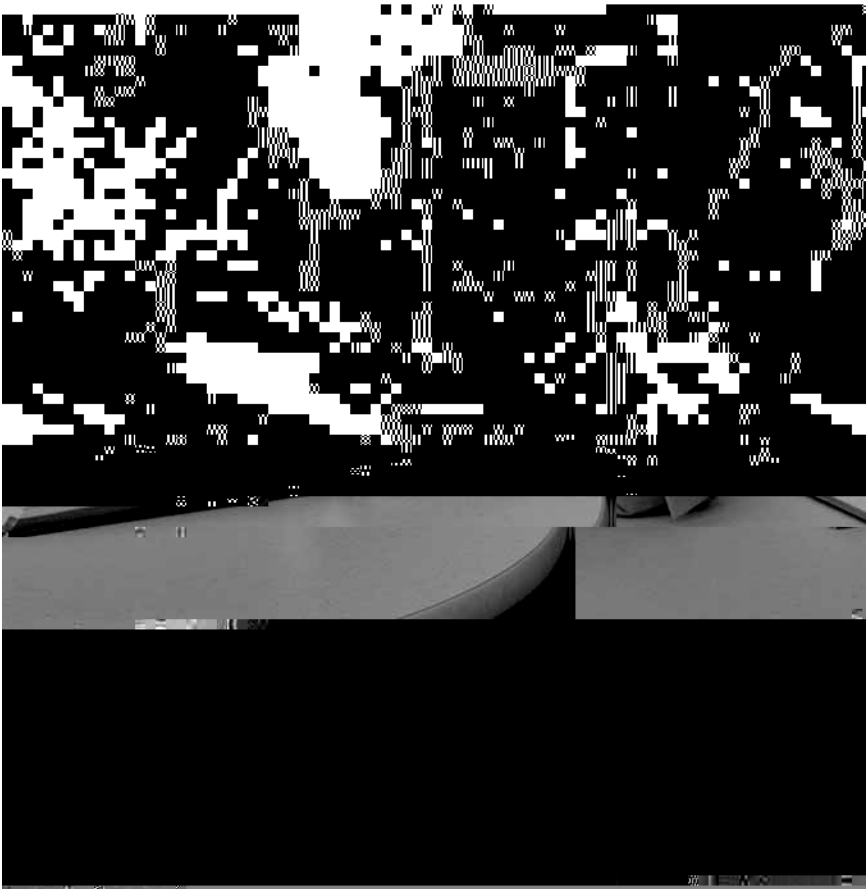
must also work or volunteer with patients under the supervision of a licensed physical therapist. This can be arranged through the Service-Learning Center at Calvin.

<i>First Year Fall Semester</i>	<i>First Year Spring Semester</i>
Biology 205	Biology 141
Chemistry 103	Chemistry 104
Core courses	Core or major concentration courses
<i>Second Year Fall Semester</i>	<i>Second Year Spring Semester</i>
Biology 206	Mathematics 143
Chemistry 253	Psychology 201
Psychology 151	Core or major concentration courses
Core or major concentration courses	
<i>Third Year Fall Semester</i>	<i>Third Year Spring Semester</i>
Physics 221	Physics 222
English 201	Core or major concentration courses
Core or major concentration courses	

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. 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

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 courses are listed after the department course listings. A separate Interim course catalog with full course descriptions will also be available October 2004.**

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

J. MacKenzie (director), L. Bosch (international student advisor), K. Broekstra (coordinator of services to students with disabilities), R. Buursma, J. DeBoer (assistant coordinator of services

COURSES

003 Review of Written English as a Second Language (3). F and S, 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, which is administered again at the end of the course. Enrollment in English 101 the following semester will require a minimum score of 85 on the locally administered placement test and the recommenda-

tion of the ASC 003 instructor and the English Department. *L. Bosch.*

004 Pre-college Mathematics for the Liberal Arts Students (3). F and S, no credit. This course is a review of high school mathematics, from fractions and decimals to basic algebra and geometry, with intensive practice in mechanics. Materials are taught with particular emphasis on development of mathematical thinking and problem solving. 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 this course. *J. MacKenzie, Staff.*

005 Pre-college Mathematics for the Business and Science (3). F and S, no credit. This course is an intensive study in the mechanics of algebra, manipulation of algebraic expressions, and graphing. Materials are presented with an emphasis on development of problem solving skills and mathematical reasoning. The course is intended as preparation for Mathematics 143/132 or 110 for students in mathematics-oriented majors, whose preparation in mathematics is inadequate. A final grade of C or higher is required for successful completion of this course. *Staff.*

006 College Thinking and Learning (2). F and S, no credit. Serving in God's kingdom requires knowledge, understanding, and criti-

cal inquiry. ASC 006 assists students in developing strategic approaches to course work and encourages attitudes and habits integral to this learning process. Students will particularly apply the learning strategies to a course in which they are concurrently enrolled, such as history, political science, psychology, or religion. A final grade of "C" or higher in ASC 006 is required for successful completion of this course. *R. Buursma, J. Heerspink, A. Granderson-Kitomary.*

007 Pre-college Grammar and Composition (2). F and S, no credit. This course provides instruction in grammar and writing and is intended as preparation for English 101, which must be taken the subsequent semester. Students who are required to take this course in order to be admitted to English 101 must pass it with a grade of "C" or higher. *G. Fondse.*

Accounting

The accounting program at Calvin College is intended to prepare students for careers

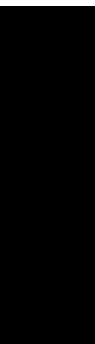
African and African Diaspora Studies

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 R. Jelks of the History department serve as advisors for this program.

THE MINOR REQUIRES:

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

Track 1: Africa



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. *J. Van Reeuwyk.*

Studio Courses

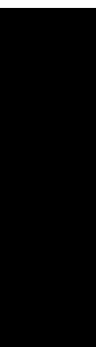
250 Introduction to Drawing (3). F and S. An introduction to drawing media. This course teaches the basic understanding and use of drawing materials and techniques through the construction of visual problems and solutions related to pictorial space (line, shape, value, volume, scale, composition, and 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. *Staff.*

251 Introduction to Painting

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. C. *Huisman.*

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. *A. Greidanus Probes.*

351 Advanced Painting (3). * S. A further investigation of painting ideas and media. This



be given to relationship between art and the Catholic Reformation, to the rise of nationalism and modern science, and to the emergence

Astronomy

Professors *L. Molnar, S. Steenwyk (chair)*
Assistant 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 sixteen-inch telescope in the observatory and portable telescopes 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.

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. *D. Haarsma, S. Steenwyk.*

111 The Solar System (4). F This course is

ratory. 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 2004-2005.

212 Galactic Astronomy and Cosmology (4). S. 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. *D. Haarsma.*

384 Modern Observational Astronomy (2). S, alternate years. Students will learn tech-

niques 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. Not offered 2004-2005.

390 Independent Study. F, I, and S. Independen-

in areas of cell and molecular biology, biotechnology, organism biology, ecology, and environmental biology. A seminar program acquaints students with professionals working in a variety of areas in biology.

Students interested in a biology program of concentration with a particular emphasis should consult with the appropriate advisor. A partial listing of staff interest areas includes:

- J. Beebe — plant molecular biology, plant development, and plant physiology
- C. Blankespoor — invertebrate zoology, animal behavior, and parasitology

336. 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, 242 and 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 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, and one course from Chemistry 201, 262, 271/281,

323/383, or Geology 151

IDIS 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

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

Pre-Professional Courses

205 Human Anatomy (4). F 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. *P. Tigchelaar*

206 Human Physiology (4). F An introduction to the physiology of the human being. Function of the major organ systems is studied, including the circulation, respiration, excretion, and muscle, nervous and endocrine systems. The laboratory introduces basic physiological techniques in an investigative setting. Prerequisites: Biology 242 or 205, Chemistry 115, 253, or equivalent. *R. Nyhof, S. Matheson.*

207 Medical Microbiology (4). 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. *A. Hoogewerf.*

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. Applica-

age, 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. *E. Arnoys, D. McCarthy.*

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. *1*

354 Investigations in Physiological Ecology
(4). * Not offered 2004-2005.

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Chemistry and Biochemistry

Professors R. Blankespoor (chair), R. DeKock, A. Leegwater, L. Louters, K. Carlson Muyskens, M. Muyskens, K. Piers, K. Sinniah

Assistant Professors E. Arnoys, D. McCarthy, 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 who are majoring in the department, with the exception of those in a secondary education program, and who enrolled at Calvin in 2001 or later 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 (offered alternate years)

Cognates

Mathematics 132 or 161
 Physics 133 and 235 or Physics 221 and 222
 IDIS 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

Cognates

IDIS 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 INTEGRATED SCIENCE STUDIES MINOR AND MAJOR

Designed for students in the Elementary Education Program wishing to major or minor in science. More detailed descriptions of these programs can be found in the *Teacher Education Program Guidebook*. Science education advisors: K. Bergwerff, Geology Department; S. Haan and J. Jadrach, Physics Department.

MINOR

A minimum of 26 semester hours of science must be taken, including the following:

Biology 112
 Chemistry 101
 Geology 120
 Physics 112
 Physics 212
 IDIS 313

One advisor-approved elective in science

MAJOR

A minimum of 38 semester hours of science must be taken, including all the courses prescribed for the minor, plus the following:

Astronomy 110 or 211

Biology 115

One additional advisor-approved elective in science

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

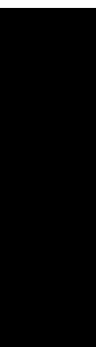
BIOCHEMISTRY MAJOR (ACS Certified)

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



istry, 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 ethics and stewardship of health also will be discussed. Laboratory. Prerequisite: High school chemistry. *D. McCarthy, L. Louters.*

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 electrophoresis), 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. *K. Sinniah.*

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

261 Organic Chemistry I (5). F 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. *R. Blankespoor, K. Piers.*

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

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. *D. McCarthy.*

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. *D. McCarthy.*

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. *A. Leegwater.*

304 Physical Chemistry for the Biological Sciences (4). S. 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. Prerequisite: Chemistry 104, a one-semester college level calculus course, or permission of the instructor. *R. DeKock.*

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. *K. Muyskens.*

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.

Chinese

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

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 Beijing Institute of Technology. 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.

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. *L. Herzberg.*

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. *L. Herzberg.*

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. *L. Herzberg.*

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. *L. Herzberg.*

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. *Q. Herzberg.*

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. *Q. Herzberg.*

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. *Q. Herzberg.*

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. *Q. Herzberg.*

Classical Languages

Professors K. Bratt, M. Gustafson (chair), †M. Williams

Assistant Professor G. McIntosh

Visiting Instructor J. Veenstra

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

Latin 357

Latin 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. *G. McIntosh.*

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. *K. Bratt.*

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

ing some major themes of Greek religion and mythology. Prerequisite: Three semesters of Greek. *M. Gustafson*.

203 Readings in Herodotus (3). 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. Not offered 2004-2005.

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. *K. Bratt*.

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

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. Not offered 2004-2005.

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. *Staff*.

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. *Staff*.

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: Greek 301 and 302. 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. *M. Gustafson*.

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. *M. Gustafson*.

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. *J. Veenstra*.

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. *J. Veenstra*.

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. *G. McIntosh*.

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. *M. Gustafson*.

300 Latin Epic Poetry (3). * A close reading of selections from Vergil's Aeneid and/or other works of Latin epic literature. Prerequisite: Latin 205 or 206. Not offered 2004-2005.

302 Latin Philosophical Literature (3). * S. 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 political thought. Prerequisite: Latin 205

304 Latin Historical Literature (3). Extensive reading in the major Latin historians of the Late Republic and the Empire. Emphasis is placed upon the interpretation of these writers and our understanding of the historical events of the period. Collateral reading is required. Prerequisite: Latin 205

305 Latin Lyric (3). * F 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. *J. Veenstra.*

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

Faculty: *J. Fackler, R. Fortner, D. Freeberg, *J. Korf, C. Plantinga, M. Schultze, H. Sterk (chair), **J. Vander Woude*
 Staff: *A. Page, S. Sandberg, L. Welker*
 Advisors: *D. Garcia, P. Goetz, *K. Groenendyk, *G. Pauley, C. Smit*

The department serves students intending careers in communication-related professions who wish to understand the society in which they live and to improve their communication. The department offers specializations in speech pathology and communication studies, rhetoric and communication, mass media, and theatre. The department 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 in Chicago Semester, the American Studies Program in Washington, D.C., or the Los Angeles Film Studies Center. The department's internship advisor is J. Korf. The department also offers a group minor in journalism, a program involving the department, is described in the Department of English.

COMMUNICATION STUDIES

CAS 140
 CAS 190 or 290
 CAS 284
 CAS 352
 CAS 383
 Two courses from: 251, 281 and 282
 Four CAS electives, one of which may be an interim.

MASS MEDIA

CAS 140
 CAS 190
 CAS 230
 CAS 238
 CAS 248 (not Playwriting) or 249
 CAS 250
 One course selected from CAS 254, 281 or 282, 352
 Three CAS electives, one of which may be an interim.

RHETORIC AND COMMUNICATION

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

SPEECH PATHOLOGY AND AUDIOLOGY

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,

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 201
 Information Systems 203
 Information Systems 337
 Information Systems 341
 Information Systems 333
 Computer Science 108
 Computer Science 262
 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 143
 One Film course
 One Mass Media course
 Four electives from Film and Mass Media

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 100 seniors only, 101, 140, 141, 143, and 214. The department offers an exemption exam for CAS 101. Fine Arts core requirements can be met by CAS 140 for seniors only.

ELEMENTARY EDUCATION FINE ARTS

ods to help students learn about analyzing and constructing oral and written arguments and to work cooperatively doing a research project for class presentation. *Staff*.

141 Visual Rhetoric (3). 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. *K. Groenendyk*.

143 Media and Culture (3). S. Exploration of the role played by mass communication in

basic acoustics, acoustic theory of speech perception and production, psychophysical methods of measuring hearing thresholds, acoustic phonetics, and synthesized speech. *P. Goetz.*

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. *R. Buursma.*

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 individu-

between theoretical approaches, and the means of evaluating theoretical perspectives, including a Christian critique of communication theories. Prerequisite: CAS 140. *C. Smit.*

240 Group Communication (3). E 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. *Staff.*

248 Writing for the Media (3). E and S. An introduction to the content, styles, and formats of media scripts. The course emphasizes

270 Communication and Gender (3). F A



phology. 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 set-

Computer Science

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

The department offers a variety of major concentrations for students who wish to pursue a computing-related career. 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 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; Engineering 304, 325; or an approved interim. At most one elective can be an Information Systems course.

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 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; Engineering 304, 325; or an approved interim. At most one elective can be an Information Systems Systems course.

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 201
- Information Systems 221
- 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 (gr85(AL65Tw(COMM9.n6r)8.8 0 0 9 153 504.36 Tm0.033rCt-4.6555 p1

partmental 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 using the language C++. Coverage includes I/O, types and expressions, libraries, functions and parameter passing, control structures, files, array processing and the use of predefined classes (including templates). Prerequisite Mathematics 132 or 161, which may be taken concurrently. *D. Laverell.*

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. Prerequisite: Some prior programming experience recommended. *J. Frens.*

112 Introduction to Data Structures (4). F and S. A continuation of 108, 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. *L. Nyhoff.*

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). *H. Plantinga.*

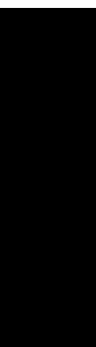
214 Programming Language Concepts (3). S. Design principles and implementation issues of contemporary programming languages. Topics covered include programming paradigms, the syntax and semantics of programming language constructs, translation of high level languages to machine language, and formal languages. Several different languages will be introduced and examines to illustrate these topics. Laboratory. Prerequisite: 112. *J. Frens.*

216 Programming Challenges (1). F 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. *J. Frens*

232 Operating Systems and Networking (3). F 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 *D. Laverell.*

262 Software Engineering (3). S. 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. *K. VanderLinden.*

312 Logic, Computability and Complexity



tial 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. *D. Laverell*.

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: 203 or Computer Science 108. *D. Laverell*.

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 forms in HTML; an introduction to Perl and Common Gateway Interface (CGI) scripting; legal and ethical issues. Prerequisite: Computer Science 108 and Information Systems 153, or permission of the instructor. *E. Fife*.

341 Database Administration (3). F alternate years. 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, 201 and 203 or permission of the instructor. Not offered in 2004-2005.

Dutch

Associate Professor H. De Vries (chair)

Programs for students wishing to minor or major in Dutch are worked out for them individually by the department advisor.

The cross cultural engagement may be 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.

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

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.

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.



One from Business 365, 381, or 382
 One 300 level Economics or Business 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, 201, 203
 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, 201, 203
 or Computer Science 104, 108 or 112

SOCIAL SCIENCE GROUP MAJOR-ECONOMICS EMPHASIS

Economics 221
 Economics 222
 One from Economics 323-326
 Two from Economics 323-343
 Two department electives
 Four courses from one of the social sciences (sociology, psychology, political science, or history)

Cognates

Mathematics 143, 243, or 343
 Information Systems 171
 One from Information Systems 151, 153, 221, 141, 201, 203
 or Computer Science 104, 108 or 112

SECONDARY EDUCATION ECONOMICS MINOR

Economics 221
 Economics 222
 Economics 338
 Economics 339
 A minimum of seven 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 and D. Howard, 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

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 55 credit hours in the Department of Economics and Business 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

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).

A model program for BSPA is:

<i>First year</i>	<i>Semester Hours</i>
English 101	3
Mathematics 143-132 (or alternative mathematics cognate)	8
Foreign Language	8
Computer or Information Science	2
History 151 or 152	4
Business 160	3
Interim (Interdisciplinary W50)	3
Prelude (Interdisciplinary 149)	1
Research and Information Technology (Interdisciplinary 110)	1
<i>Second year</i>	
Business 203, 204, and 215	9
Economics 221 and 222	7
Persons in Community (Philosophy 221, Political Science 110 or Psychology 151)	3
Biblical Foundations	3
Interim elective	3
Philosophy 153	3
Literature	3
Health and Fitness	1
<i>Third year</i>	
Business 301, 302, 305, and 315	16
Global and Historical studies	3
Economics 323 or 324 or 325 or 326	4
Living World	4
Interim (English 262)	3
Electives	3
Health and Fitness	1
<i>Fourth year</i>	
Business 306, 380, and 370	10
Economics 331-339 (or a second course from 323-326)	3
The Arts	3
Cross cultural engagement	1
Integrative studies	3
Health and Fitness	1
Electives	9
<i>Fifth year</i>	
Business 310, 311, and 350	11
Business 307	3
Rhetoric in Culture	3
Natural World	4
Theological Foundations	3
Electives	6

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. 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

Business

160 Introduction to Business and Organization Management (3). F and S. An introduction to the functional areas of business and other organizations from a manager’s perspective. The course analyzes and evaluates how managers integrate different facets of business such as law, finances, accounting, information systems, ethics and social responsibility, marketing, and human resources into a successful business or non-profit organization. General management styles and strategies, and aspects of organizational change are also covered. Christian evaluation of management topics is a constant theme throughout the course. *A. Mpesha, S. Jackson, M. Sampson, D. Reynolds.*

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. *D. Reynolds, R. Medema, R. Slager.*

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. *D. Cook, J. Voskuil, Staff.*

215 Accounting Process and Methods (2). S. A study and application of accounting processes and techniques. The operations of ac-

counting 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. *R. Slager.*

269 International Business (3). F. A study of the global business environment, management challenges, and cross-cultural issues involved in international business and organization management with an emphasis on developing regional expertise and Christian perspective. Prerequisite: Business 160 or permission of the instructor. *A. Mpesha.*

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. *J. Voskuil.*

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. *J. Voskuil.*

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. *D. Reynolds.*

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. *D. Cook.*

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. *D. Cook.*

310 Advanced Accounting (4). * F Preparation of consolidated financial statements, accounting for partnerships, and accounting for installment and consignment sales. Introduction to governmental and fund accounting. Prerequisites: Business 301 and Information Systems 171. *R. Slager.*

311 Auditing (4). * S. The theory and philosophy of auditing, including an examination of the ethical and other professional stan-



396 **Strategic Management (3).** * S. An integrative study of strategic management, requires 100 hours of study. **Prerequisites:** Tc0649 46

Education

Professors J. Gormas, S. Hasseler (Director of Undergraduate and Graduate Teacher

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
(see English or Spanish)
Fine Arts Group (see Art, Music or
Communication Arts and Sciences)
French
Geography
German
Health Education (see HPERDS)
History
Integrated Science Group
(see Biology or Chemistry)
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
Education 309
Education 322
Education 326
Education 345
Education 398
Interdisciplinary 313
Mathematics 221
Mathematics 222
Physical Education 221
Physical Education 222

SECONDARY EDUCATION COURSES

Education 102
Education 202
Education 302
Education 303
Education 307
Education 346
Education 398
Departmental Seminar 359

SPECIAL EDUCATION MAJOR (COGNITIVE IMPAIRMENT):

Advisor: T. Hoeksema

Biology 115
Psychology 151
Psychology 201
Psychology 313
Education 306
Education 310
Education 330
Education 347

EARLY CHILDHOOD MINOR

Advisor: Y. VanEe

Psychology 204
Sociology 304
Education 236
Education/Communication Arts and Sciences 311
Education 337
Education 339
Education 344

UNDERGRADUATE COURSES

102 Introduction to Education (1) F and S.
This course serves as an introduction to the Education 344

grating elements in the course. Prerequisite: Education 202 or permission of the instructor. *T. Hoeksema*.

307 Reading in Content Areas: Secondary (3).

* F and S. A study of the reading process as it relates to the secondary school curriculum; an analysis of the factors which enhance or impede comprehension of content area reading materials; a presentation of reading and study skills common to all content areas; an analysis of reading and study skills required in specific content areas; a review of formal and informal tests of pupil reading levels; and an introduction to interpretation of test scores for screening and determining pupil reading needs. A study of the types and functions of reading programs in secondary schools; a presentation of the responsibilities and qualifications of secondary teachers for applying principles of reading in daily assignments; and demonstration of techniques for meeting the wide range of reading levels found in the average secondary classroom. Prerequisites: Education 302/303 or permission of the instructor. *Staff*.

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. *R. Keeley*.

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. *T. Hoeksema*.

311 Child Language Development (3).

S. See CAS 311.

Hoeksera5

344 Early Childhood Education: Field Experience (12). * A field experience in two early

Education 580

Education 594

Education 597

Concentration of at least 14 semester hours: Literacy and Leadership concentrations are described below. Other concentrations can be arranged in consultation with the Curriculum and Instruction advisor.

LITERACY CONCENTRATION (in the Curriculum and Instruction Program)

Advisor: *J. Rooks*

Education 513

Education 540

Education 542

Education 543

Electives

LEADERSHIP CONCENTRATION (in the Curriculum and Instruction Program)

Advisor: *B. Hekman*

Education 534

Education 538

Education 562

Education 563

Supervised administrative internship experience

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 548

Education 550

Education 551

Education 582

Education 594

Education 598

Psychology 511

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. *R. Sjoerdsma*.

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. *J. Gormas, D. Isom*.

512 Theories of Instruction (3). S 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. *J. Gormas*.

513 Cognition, Learning, and Literacy Development (3). F (odd years) 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. Prerequisites: At least one course in reading and one in psychology. *J. Rooks*.

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 em-

phasis 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. *B. Hekman.*

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 commu-



glory of God. The educational objectives of the engineering program are that its graduates will be:

- *Individuals* who are firmly grounded in the basic principles and skills in engineering, mathematics, science, and the humanities, for correct, perceptive, and sensitive problem assessment at a level appropriate for entry level work both in industry and graduate school;
- *Designers* who are able to creatively bring a project from problem statement to final design and prototype while realizing the interdisciplinary and interdependent character of the engineering profession; and
- *Servants* whose Christian faith leads them to an engineering career of action and involvement, to personal piety, integrity, and social responsibility.

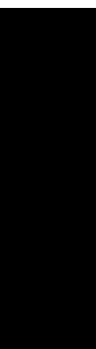
The engineering program has a strong emphasis on design. Here the student meets the challenging value and technical issues that arise when societal problems are dealt with through technology. The design experience starts with several projects in the first year, which focus on societal problems and issues, 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 major themes or emphases. The Chemical Engineering concentration has emphases of chemistry and chemical processing. The Civil Engineering concentration has emphases of hydraulics and structures. 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 Department of Engineering. 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; and
- Have a minimum cumulative grade point average of 2.30.

Students must apply for admission to a concentration in the Department of Engineering during the semester in which they are completing the rang d4 by me(Afhey a)JTJ -1.3pecac-1.1



mable logic devices, digital logic CAD tools, and hardware description languages. Logic synthesis, including VHDL. Laboratory work will include logic design and assembly language programming. Prerequisites: Engineering 204 and a programming language course (normally Computer Science 104). *Staff*.

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. Laboratory experiments are used to emphasize principles. Prerequisites: Engineering 106 and 202. *Staff*.

306 Principles of Environmental Engineering (4). S. Decision-making in the selection of environmental control measures and equipment. The emphasis is on water supply and wastewater treatment, solid waste management, and hazardous waste disposal. Prerequisite: Junior or senior standing in the Engineering Department or approval of the instructor. *D. Wunder*.

307 Electrical Signals and Systems (4). F. Advanced techniques for the analysis of analog electrical systems. Topics include: basic circuit analysis review, 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 and 232. *Staff*.

311 Electronic Devices and Circuits (4). F. A study of the characteristics and qualitative internal action of commonly used micro-electronic 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. *P. Ribeiro*.

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 209, Engineering 303, and Chemistry 317. *Staff*.

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 non-linear problems are investigated with original inquiry suggested and encouraged. Prerequisites: Engineering 202 and Mathematics 232. *R. De Jong*.

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. Prereq-

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design project and one kinetics lab project will be done to reinforce concepts presented in class. Prerequisites: Engineering 312, 330, and Chemistry 317. *W. Wentzheimer.*

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:

English

Professors R. Anker, *W. D. Brown, S. Felch, D. Hettinga, J. Netland (chair), K. Saupe,
G. Schmidt, J.H. Timmerman, W. VandeKopple, D. Ward
Associate Professors B. Ingraffia, J. VandenBosch, **E. VanderLei

English 326
English 334, 335, or 337
English 338 or 339
English 346
English 357

Cognate

CAS 230

Ideally, students should take English 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, however, students must pass all five sections of the English Department Screening Exam. This test is given in April, September, and October. Additional criteria for approval 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

**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 LAN-
GUAGE 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 - ELEMENTARY OR
SECONDARY EDUCATION (33 hours)**

CAS 216
English 334
English 335
English 338
Interdisciplinary 301 (Elementary) or 302
(Secondary)
Sociology 253
An approved elective: See the *Teacher Education Guidebook* or an ESL advisor

Note: Students pursuing this endorsement must complete a semester of directed teaching in a regular classroom and an additional semester of directed teaching in an ESL classroom (Education 348 or 349).

Note: A non-education minor in ESL is also available and does not require the directed teaching or Interdisciplinary 301 or 302.

The advisors for the ESL programs are M. Pyper and E. Vander Lei. must complete advisors for the ESL

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 is required both for graduation and as a pre-requisite 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 or by examination. The literature core requirement is met by English 205, 210, 211, 215, 216, 217, 218, or 219.

COURSES

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. *Staff.*

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. *E. VanderLei.*

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. *Staff.*

210 World Literature I (3). F and S. This is a course of selected readings and lectures in the

Against the background of a critical appraisal of current practices, students write, edit, and evaluate news reports and feature stories. *D. Hettinga.*

248 Writing for the Media (3). F An introduction to the content, styles, and formats of

318 Non-Western Literature: Africa or South Asia (3). 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 2004-2005.

320 Modern British and American Poetry (3). * F Intensive reading of selected works of major twentieth-century British and American poets. *J. Timmerman.*

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 January 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. Not offered 2004-2005.

322 Modern Drama (3). * F 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. *D. Urban.*

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. *D. Hettinga, N. Hull, G. Schmidt.*

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. *D. Hettinga.*

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 crite-

ria 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. *G. Schmidt, D. Hettinga.*

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. *W. VandeKopple, J. VandenBosch, E. VanderLei.*

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. *W. VandeKopple.*

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. *J. VandenBosch.*

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. *c.J. VandenBosch.*

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. *W. VandeKopple, J. VandenBosch.*

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. Not offered 2004-2005.

346 Shakespeare (3). * F and S. A study of the major works of William Shakespeare. *C. Engbers, S. Felch, K. Saupe, D. Rienstra, D. Urban.*

347 Milton (3). * S. A study of the poetry and prose of John Milton. *C. Engbers, D. Urban.*

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 2004-2005.

355 Creative Writing (3). * 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 spring, 2005. *D. Rienstra, J. Timmerman, L. Klatt.*

356 Language, Grammar, and Writing for the Elementary (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. *W. VandeKopple.*

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 composi-

tion, revision, and evaluation. Majors in secondary education programs must take this course in the fall semester of their final year. *E. Vander Lei.*

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 (formerly English 336), and Education 301/303. Before taking English 359, students normally also complete Education 304, Education 307, and Education 308. *W. VandeKopple.*

370 Literary Theory and Criticism (3). * F 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. *S. Felch, B. Ingraffia.*

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

tian 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. *R. Anker, S. Felch, J. Holberg, J. Netland.*

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. *Staff.*

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.

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.

531 Language and the Elementary Classroom (3). A study of some aspects of traditional grammar and 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.

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.

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 programs. *ns. Speolcerof la,ethmpoand ap-works.511 Lato theAw [od(workes.)Tj 0 -1.6533 TD -0.0139Tw (510)Tj /F5 1 T*

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
Geology 152
Geology 305
Geology 311
Geology 312
Biology 141
Biology 243
Biology 345
One of Biology 242 or Geology 212, 304, 314, 322 or approved alternative
Chemistry 103

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 earthkeeping. Not open to first-year students. Prerequisite: Environmental Studies 210 or permission of the instructor. *K. Goenendyk.*

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 spe-

cific project and work under the direct supervision of an employee of the governmental, non-profit, or business entity, as well as under the supervision of the instructor. Prerequisites: Environmental Studies 210, 302, and permission of the instructor. *H. Aay.*

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; Biblical Foundations I or Theological Foundations I, Developing a Christian Mind, and Philosophical Foundations. *H. Aay.*

French

Professors G. Fetzer, O. Selles (chair)

Associate Professor, J. Vos-Camy

Assistant Professors I. Konyndyk, L. Mathews

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 and 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 core language requirement may be met by the Study in France program (Spring 2005). The Cross-Cultural Engagement core requirement may be met by the department's W80, W85 interim courses, or by the Study in France program. The core literature requirement may be met by one of the following: French 217, 311, 312, 313, or 314. The advisor for this program is O. Selles. Ma11.8(y educatiTD 0 is Olowldrse of st632, 313,1(e Olowly educatiof s)-14.9(0.)]

One from French 219, 220, 221, 280 or Study in France 230

Ten semester hours of electives, excluding French 356, 357, 359, and 390 (interim Assistant)

To be eligible for a major concentration in general French studies, a student must have completed at least two courses in French with a minimum grade of "C" (2.0) and must have completed French 101-102, French 121, or the equivalent.

FRENCH ELEMENTARY/SECONDARY EDUCATION MAJOR: 35-36 semester hours

French 215

French 216

French 217

French 311 or Study in France 315

French 301 (elementary)

French 307 (secondary)

Two from French 219, 220, 221, 280 or Study in France 230

Two courses from French 295, 311, 312, 313, 314, 371, the department's Internships abroad (W80, W85), or Study in France 295 and 316

French 20s or Study in France 315

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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. A ranking of Intermediate-High on the ACTFL Proficiency Scale constitutes the desired 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. During the interim and spring semester on alternate years, Calvin offers its own full-time language program in Grenoble, France, through which students can complete the core-program courses French 101, 102, 201, and 202 to satisfy the college foreign language requirement. Calvin also offers an advanced language and culture program during the spring semester in Grenoble. Under the auspices of the Centre Universitaire d'Études Françaises of the Université Stendhal, students in the advanced program take 14 semester hours of language, literature, and culture. No prerequisites for the core program; French 215 and 216 are prerequisites for the advanced program. The advisor for this program is J. Vos-Camy. The program is offered Spring, 2005.

COURSES

101 Elementary French I (4). F An introductory course in the comprehension and use of spoken and written French. *O. Selles.*

102 Elementary French II (4). S. Continuation of French 101. *C. DeJong, I. Konyndyk.*

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. *I. Konyndyk.*

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. *I. Konyndyk.*

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. *I. Konyndyk.*

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 French in high school. *L. Mathews, O. Selles.*

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 complete two years of high school French, but who, on the basis of a placement test, are not prepared for French 201. *L. Mathews, G. Fetzer.*

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of foreign language teaching in the elementary school. Study of language skill development, second language acquisition, methodologies, curriculum, and programs. Off-campus school visits for observation and aiding experience. Required for K-12 endorsement. If elected, to be taken prior to Education 346 and French 359. *M. Pyper*.

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. Prerequisite: Completion of or concurrent registration with Education 302/303. *D. Smith*.

359 Seminar in Secondary Foreign Language

tention to those of the modern period. Major figures include Villon, Ronsard, Baudelaire, Rimbaud, Mallarme, Valery, 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. *G. Fetzer*.

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 2004-2005.

Geology and Geography

Professors H. Aay, †J. Bascom, J. Curry, R. Stearley (chair), G. Van Kooten

Assistant Professors K. Bergwerff, D. van Dijk

Visiting Associate Professor **R. Willis

Adjunct J. Clark

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 305

Geology 306

Geology 307

Geology 311

Geology 386

Two electives from Geology 251, 304, 312, 313, 314, 322, 390, 395, 396, Geography 221 and 222, or an approved interim course.

Cognate

Chemistry 103

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

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 Guide-*
book

**ELEMENTARY/SECONDARY
EDUCATION GEOGRAPHY MINOR**

Geography 110
Geography 120
Geography 210
Geography 241

Two electives: See
Teacher Education Guidebook for list of ap-
plicable electives

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. *R. Stearley, Staff.*

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. *R. Stearly.*

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: Completion of or concurrent registration in Geology 152. Not offered 2004-2005.

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. Also listed

as Geography 251. Prerequisite: Sophomore status. *R. Stearley.*

304 **Geochemistry** (3). * S, 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 305 or 151 plus Chemistry 104 or permission of the instructor. Not offered 2004-2005.

305 **Mineralogy and Petrology I** (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 are emphasized in laboratory. Laboratory. Prerequisites: Geology 151 and Chemistry 103. *Staff.*

306 **Mineralogy and Petrology II** (4). I, alternate years. This course continues the study of mineralogy and petrology. Topics include the

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. *D. van Dijk*.

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. *D. vanDijk*.

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. Not offered 2004-2005.

314 Stratigraphy (4). * F, alternate years. Fundamental principles of stratigraphic nomenclature and interpretation are illustrated through intensive study of sedimentary basins, including the Michigan Basin, basins of the Southwest United States, and the Central Appalachian Basin. Emphasis on applying the interpretation of sedimentary facies to historical sequences. Applications to petroleum exploration. Laboratory, required field trip. Prerequisites: Geology 152. *R. Stearley*.

316S Field Geology (3). SS. Introductory field geology. Offered as a summer course at AuSable Trails Institute of Environmental Studies located near Mancelona, Michigan.

322 Coastal Gemorphology (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 rockO(gan-)]pr

German

Professor B. Carvill

Associate Professor H. De Vries (chair)

Assistant Professor D. Smith

Research Associate P. Dykstra-Pruim

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.

GERMAN MAJOR

(30-32 semester hours)

German 215

German 216

German 315

Two 300-level literature courses

Five electives numbered 123 or higher (ex-

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. *D. Smith, Staff.*

102 Elementary German II (4). S. Continuation of German 101. *Staff.*

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 systematic grammar review, cultural topics and study of a variety of short literary texts. Prerequisite: German 121. *Staff, B. Carvill.*

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. *D. Smith, Staff.*

202 Intermediate German (4). S. Continuation of German 201. Prerequisite: German 201. *D. Smith.*

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. *B. Carvill.*

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. *B. Carvill.*

315 Advanced Language and Culture (3). F 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. *B. Carvill.*

Literature

217 Readings in Major German Authors I (3). F This course is a basic introduction to

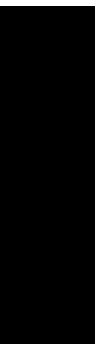
German literature and covers selected readings in major German authors from 1750 to 1850. Prerequisite: German 123 or 202. *H. De Vries, B. Carvill.*

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 D.urrenmatt. 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. *H. De Vries, B. Carvill*

250 German Civilization (3). F 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 2004-2005.

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 2004-2005. *Staff.*

303 Romanticism (3). * S, odd years. The literary theory and philosophical-religious basis of the German Romantic movement as reflected in representative works of both ear-



Health, Physical Education, Recreation, Dance, and Sport

Professors D. Bakker, D. DeGraaf, K. Gall, N. Meyer, G. Van Andel (chair)
Associate Professor J. Kim, J. Timmer, Jr., K. Vande Streek, B. Bolt
Assistant Professor J. Bergsma, M. Klooster, J. Pettinga, J. Ross, E. Van't Hof,
J. Walton, A. Warners,

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, 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*

Physical Education 201
Physical Education 212
Physical Education 213
Physical Education 220
Physical Education 301
Physical Education 315
Physical Education 325
Physical Education 332
Two electives from the 200-level or above
or an approved interim

Required Cognate

Biology 115

*Note that these are basic courses required of all physical education majors, except education.

PHYSICAL EDUCATION MINOR

Physical Education 201
Physical Education 325
Physical Education 220
A minimum of 7-10 additional hours in at

EXERCISE SCIENCE EMPHASIS

Physical education major courses (including electives) plus the Exercise Science Cognate.

Cognates

Biology 141
Biology 205/206
Chemistry 115
Health 254
Physics 223
Mathematics 143

Two electives from Physical Education, Health or science courses at the 200 level or above, which must be approved by one of the exercise science program advisors.

Exercise science program majors are asked to consult N. Meyer or J. Walton

K-12 TEACHER EDUCATION/ PHYSICAL EDUCATION MAJOR

Physical Education 156
Physical Education 201

* Physical Education 305 and 306 are required for K-12 endorsement, but Physical Education 305 is dropped as a requirement for secondary only certification and Physical Education 306 is dropped as a requirement for elementary only certification.

**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:
ELEMENTARY/SECONDARY**

- Health 202
- Health 203
- Health 254
- Health 265
- Health 266
- Physical Education 301
- Health 307
- Health 308

Please note many courses in the health education minor are offered alternate years, so this minor takes careful planning.

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 recreation. Recreation majors complete a modified liberal arts core, seven major courses (Recreation 201, 203, 304, 305, 310, 380, and 346), four cognate courses (Social Work 350 or Psychology 201 or 207, Sociology 310 or Psychology 310, and Physical Education 220 and either Physical Education 221 or 222). Each major will also select an emphasis area from one of the following options: Therapeutic Recreation (Mathematics 143 or Psychology 255 or Sociology 255, Psychology 212, Social Work 370, Psychology 201, and Recreation 205, 314, and 324); Youth Leadership (CAS 140, Physical Education 301, Psychology 207, and Recreation 215, 308, and 312); or Community Recreation (Environmental Studies 201, Physical Education 301, Political Science 202, and Recreation 215, 308, and 312). Students are advised to consult with G. Van Anel (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

- Social Work 350 or Psychology 201 or 207 (depending on emphasis)
- Psychology or Sociology 310
- Physical Education 220
- Physical Education 221 or 222

The professional program also includes

three different emphasis areas from which students must choose at least one specialty area: Therapeutic Recreation, Youth Leadership, or Community Recreation. Within each emphasis area, the following courses are required:

THERAPEUTIC RECREATION

Mathematics 143 or Psychology 255 or Sociology 255
 Psychology 212
 Recreation 205
 Recreation 314
 Recreation 324
 Social Work 370

YOUTH LEADERSHIP

CAS 140
 Physical Education 301

Recreation 215
 Recreation 308
 Recreation 312

COMMUNITY RECREATION

Environmental Studies 201
 Physical Education 301
 Political Science 202
 Recreation 215
 Recreation 308
 Recreation 312

RECREATION MINOR

Recreation 201
 Recreation 305
 Recreation 310
 Three approved courses, one of which may be a recreation interim

<i>First year</i>	<i>Semester hours</i>
History core	4
Religion core	3
3	

Psychology/Sociology 310	3
Emphasis courses	3 or 4
Physical Education core	1
Interim elective	3
Physical Education/Recreation 301 or Psychology/Sociology 255, depending on emphasis	3 or 4
<i>Fourth year</i>	<i>Semester hours</i>
Recreation 310	3
Theology 301	3
Emphasis courses	6–8
Interim elective	3
Recreation 346 (to be taken after all major course work is completed)	12

Students are advised to consult with G. Van Andel (Therapeutic Recreation emphasis) or D. DeGraaf (Youth Leadership and Community Recreation emphasis) for more information about this program and possible career opportunities in the broad field of recreation and youth services.

DANCE MINOR

Physical Education/Recreation 156

Physical Education 202

Physical Education 310

Physical Education 330

Physical Education 212

Five additional courses from the following:

At least one semester hour in each of three 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 one 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.

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. Students with special needs should see Professor G. Van Andel to arrange for adaptive physical education course (PER 190).

COURSES

100-129 **Health 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 category. (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. Elemen-

- 101 Jogging
- 102 Walking
- 103 Cycling
- 105 Aerobic Dance
- 106 Aerobic Cross-Training
- 107 Weight Training
- 108 Lap Swimming
- 109 In-Line Skating

source materials, and learning activities. The course is required of all elementary education students. It can substitute for a Health

ing 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. *G. Van Andel.*

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. *G. Van Andel.*

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. *D. DeGraaf.*

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. *D. DeGraaf.*

308 Recreation Program and Facility Management

History

Professors D. Bays, J. Bratt, J. Carpenter, B. de Vries, D. Diephouse, D. Howard (chair), D. Miller, W. Van Vugt, R. Wells
Associate Professors, R. Jelks, W. Katerberg, K. Maag, † F van Liere, †K. van Liere
Assistant Professors B. Berglund, R. Schoone-Jongen
Instructor K. DuMez

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

of these disciplines chosen in consultation with a social studies advisor. Students seek special advice on elementary teacher education should consult D. Miller or D. Howard.

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.

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.

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. *Staff.*

151H World Civilization: Peace and War in Ancient Societies and States (4). S. The

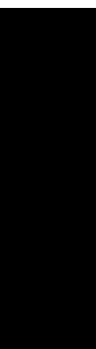
course will include comprehensive coverage of world history from early hunting-gathering societies to the medieval mercantile empires and writing assignments on the theme of war and peace. The writing of a review of Barbara Ehrenreich's *Blood Rites: Origins and History of the Passions of War* will point the class' thinking to the roles of nonviolence and violence in ancient societies and states. This will set up the main activity, each student's writing of a chapter for the in-class-published book to be titled, *Peace and War in the Ancient World: The Successes and Failures of Peaceful Coexistence*. A concluding application of this study will be discussion of the questions: Does the study of the interface between peace and war in the ancient world provide models for understanding peacemaking in the world today? A book-signing party will replace the final examination. This honors course meets a core requirement in the History of the West and the World. Enrollment is limited to 20 students, and is restricted to those who qualify for honors enrollment. *B. de Vries.*

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. *D. Miller.*

152H Honors West and the World (4). F An intensive study of world history from 1500 to the present. Within the general framework of a survey course we will explore the process of modernization in depth and from various cultural perspectives: Topics will include the rise and decline of "the West" within the larger world, the impact of global systems on traditional communities, and the importance of race and gender in maintaining and transforming cultural boundaries. We will research these problems together through some intensive reading and individual and group projects and presentations. 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. *D. Miller.*

alism, Jeffersonian, and Jacksonian politics, westward expansion, slavery and sectionalism, the Civil War and Reconstruction, and post-War expansion. *W. Van Vugt*.

253 **Industrial America, 1877-1945** (3). E. A historical study of the United States from the end of Reconstruction through World War II,



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

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. *A. Van Eerden*

110 Research and Information Technology (1). F and S. A first-year introduction to the computer and to college-level research skills, making full, but discriminating use of current electronic information technology and the resources of the Hekman Library, with a discussion of the cultural impact of computer technology and the ethical responsibilities of its users. *Staff.*

149 First Year Prelude (1). F The First Year Prelude Program begins in Quest and continues in fall semester class sessions that introduce students to Calvin College as a Christian community of inquiry. *Staff.*

W50/150 **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 read-

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. *K. Piers.*

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. *Staff.*

191 Introductory Meteorology (4). See Geography 191 for the full course description.

192 Across Cultures. (1). S. This course explores concepts of culture through direct engagement between American or Canadian students and international students. Each student meets weekly with a partner from another culture to discuss readings as well as participating in social activities with classmates. Class topics include individualism, time orientation, American ethnocentrism, and communication styles. Class meets for 10 weeks and satisfies cross-cultural engagement core. Note that international students and American/Canadian students sign up for different sections. *L. Bosch.*

193 Conversation Partners (1). F and S. United States or Canadian students partner with persons for whom English is a second language for conversation. While helping their ESL partners improve their spoken En-

glish skills, the American/Canadian students will explore various aspects of culture in their conversations, which should help them to better understand their own cultures while at the same time begin to understand a new culture. This course meets the cross-cultural engagement core requirement. *L. Bosch.*

194 Navigating College Life in the U.S.: A Guide for International Students (1). F An exploration of college life for new international students. Topics include interpersonal relationships, the college classroom, types of assignments and tests given, working on-campus, and personal finances. The class is open to international students, usually citizens of countries other than the U.S. or Canada, and satisfies the cross-cultural engagement core requirement. *L. Bosch.*

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 stu-

(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 and 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. *Staff.*

394 Gender Studies Capstone

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

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 or IS 101

Three semester hours from IS 141-203

(CPSC 108 may be substituted for the re-
quirements 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

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

the study of manifolds, including both the geometric topology and the differential geom-

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 for 2004-05 are F Van Liere (History), K. Saupe (English), H. Luttikhuisen (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. Although it is primarily intended for those students who have selected a minor in medieval studies, it is open to anyone with an interest in the Middle Ages, and it may also serve as a useful course for those who intend to go on to a graduate program in history, literature, or medieval studies.

Music

*Professors K. Brautigam, D. DeYoung, *D. Fuentes, H. Kim, C. Sawyer, P. Shangkuan (chair), C. Stapert*

Associate Professors J. Navarro, J. Witvliet, D. Reimer

Assistant Professor P. Hash, B. Kuykendall

Instructors R. Nordling

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, 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 which lead to the Bachelor of Music Education degree. Each of the programs builds on most or all of a central core of basic courses. D. Fuentes is the advisor for general, undecided students considering a major in music. C. Stapert counsels undecided students considering a major or minor in music education. All transfer students interested in a major or minor in music must consult with C. Stapert, 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

PROGRAMS FOR MUSIC MAJORS

Every music major must take all of the “Core Music Courses” listed below. Additional course requirements are listed for each specific program.

CORE MUSIC COURSES (28 semester hours)

Music 105
Music 108
Music 213
Music 205
Music 206
Music 207
Music 208
Music 305
Music 308

For official permission to be a music major, a student must achieve a minimum grade of “C” in Music 105, 108, 207, and 213. 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 found in the *Everything Book*.)

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 *Everything Book* for details.)

GENERAL MUSIC CONCENTRATION (9 additional semester hours)

Private lessons (taken twice)
Ensemble (taken twice)
Music 237
Music 202 or elective
Music 180 (taken four times)

MUSIC THEORY/COMPOSITION CONCENTRATION (20 additional semester hours)

Music 307
Music 312
Two from Music 315, 316, 317, 318, or 319
Ensemble (four semester hours)
Music 120 (taken four times)
Music 180 (taken eight times)

APPLIED MUSIC CONCENTRATION (16 additional semester hours)

Music 180 (taken eight times)
Private Lessons (taken each semester)
Ensemble (8 semester hours)
-for voice: 101, 111, 131, 141, or 191
-for strings: 171
-for winds: 151, 161, or 171
-for organ: any of the above
-for piano: any of the above
(six semesters)
-121 (one semester)
-222 (one semester)

MUSIC HISTORY CONCENTRATION (20 additional semester hours)

Music 307
Music 312
An approved interim course
Music 390
Ensemble (eight semester hours)
Music 180 (taken eight times)

MUSIC IN WORSHIP CONCENTRA- TION (29 additional semester hours)

Foundational courses (15 hours)
Music 101, 111, 131, 141, 191
(4 times, at least 2 in 131)
Music 235
Music 236
Music 237
Music 336

Specialty courses selected from the following: (14 hours – 6 must be applied music lessons)
Music 110, 210, 310
Music 130, 230, 330
Music 190, 290
Music 221
Music 195
Music 196
Music 197
Music 198

Music 238
Music 277
Music 312
Music 315
Music 316
Music 317
Music 318
Music 319
Music 337
Music 338
Music 341
Music 351

Students desiring to major in one of the music education programs will be required to meet certain standards for admission. The



sis is on the methods for teaching brass instruments. Elementary playing skills are developed. Not Offered 2004-2005.

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. *Staff,S, oddTJ -10.2 0 Tts.7591TD 0.056 Tw [(C98 is onsons on per)23.1(all woodv*

076 **Saxophone I** (0). *M. Townley.*
090 **Guitar I** (0). *C. de la Barrera.*

1XX Level II (1 or 2). 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. 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. Studio and Repertory Class (Music 180) attendance is required.

110 **Organ II** (1 or 2). *L. Visser, N. Malefyt.*

120 **Piano II** (1 or 2). *H. Kim, K. Bos, L. Hoisington, B. Mustert, L. VandenBerg.*

130 **Voice II** (1 or 2). *K. Brautigam, C. Sawyer, W. Bokhout, T. Huizenga, C. Kaiser, L. Walhout.*

142 **Trumpet II** (1 or 2). *K. Vos.*

143 **French Horn II** (1 or 2). *R. Britsch.*

144 **Trombone II** (1 or 2). *D. DeYoung.*

145 **Euphonium II** (1 or 2). *D. DeYoung.*

146 **Tuba II** (1 or 2). *T. Bush.*

150 **Percussion II** (1 or 2). *Staff.*

162 **Violin II** (1 or 2). *D. Reimer.*

163 **Viola II** (1 or 2). *B. Corbato.*

164 **Cello II** (1 or 2). *S. Bosman-Tanner, K. Krummel.*

165 **String Bass II** (1 or 2). *R. Nelson.*

172 **Flute II** (1 or 2). *J. Brown.*

173 **Oboe II** (1 or 2). *C. Ruffer.*

174 **Clarinet II** (1 or 2). *J. Varineau.*

175 **Bassoon II** (1 or 2). *P. Patrick.*

176 **Saxophone II** (1 or 2). *M. Townley.*

180 Repertory 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.

190 **Guitar II** (1 or 2). *C. de la Barrera.*

2XX Level III (1 or 2). 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. Upon recommendation of the teacher, a qualifying recital jury may be played after any semester. 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. Studio and Repertory Class attendance is required.

210 **Organ III** (1 or 2). *L. Visser, N. Malefyt.*

220 **Piano III** (1 or 2). . -0.003R. *Bobé H. K1045 sWFG ff*

264 **Cello III** (1 or 2). *S. Bosman-Tanner; K.
Krummel.*
265 **String Bass III** (1 or 2). *R. Nelson.*
272

man and sophomore students who wish to participate in a concert band. *D. De Young.*

161 Calvin Band (0-1). F and S. Representative works in wind literature are studied and prepared for concert performance. Meets four times weekly and membership is maintained at a set instrumentation. *D. De Young.*

171 Orchestra (0-1). 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 who meet the demands of musicianship. *R. Nordling.*

181 Oratorio Chorus. F and S. One hour of credit per year. The study of representative works of the great masters of choral writing with a view to public performance with or-

chestra. Handel's Messiah is performed annually at Christmas time and another oratorio is presented in the spring. Open to all who meet the requirements of voice and musicianship. *J. Navarro.*

182 Gospel Choir. F and S. One hour of credit per year. Faculty directed or coached vocal ensemble performing representative music in this particular genre and in preparation for concert appearances. Membership is open to students, faculty, staff, and alumni. *C. Sawyer.*

191 Women's Chorale (0-1). F and S. A select ensemble of treble voices devoted to singing a wide range of 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. *P. Shangkuan.*

Nursing

Professors M. Doornbos (chair), C. Feenstra

Associate Professors M. Flikkema,

*Assistant Professors J. Baker, R. Boss-Potts, D. Hansen, M. Harvey, B. Feikema, B. Gordon,
L. Michalczyk, K. VanderLaan*

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 professional Christian 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 program 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 Sociol-

ogy 151. In addition twelve liberal arts courses are required.

The nursing major is a two year program normally taken in the junior and senior years. It consists of thirteen courses distributed over four semesters with 12 semester hours of course work in each semester. While stu-

dents taking only nursing courses are full-time students during those four semesters, elective courses may also be taken during those semesters. There are no specific required interim courses.

Those interested in nursing are asked to indicate their interest at the time they begin their studies at Calvin so they will be counseled by academic advisors from the nursing department.

Pre-nursing courses for students who were/are Freshmen at Calvin in the Fall, 2001 or later

<i>First Year</i>	<i>Semester hours</i>
Biology 141, 205	8
Chemistry 115	4
Psychology 151	3
Sociology 151	3
English 101	3

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. *M. Doornbos.*

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,

do not become part of the GPA. All others are considered transfer credits and the grades will not be calculated in the student's GPA. Grades below "C" earned on non-Calvin programs will not be accepted for credit. Specific details regarding grading 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 may receive 50% of their Calvin financial aid.

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 \$125 is charged to students participating in any endorsed or approved program or independent study. (This fee is included in the cost of Calvin-sponsored programs.)

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.

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.

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. Fulfills Cross-Cultural Engagement core requirement.

Chinese Language (5). Level depends on placement examination at time of entrance. Pass/fail or graded.

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 interim and spring semester. Students may take French 103, 104, 201 and 202 to complete the foreign language core requirement or advanced language, literature and culture courses. Advanced students will be incorporated into classes of the Centre Universitaire d'Etudes Françaises, taking 14 semester hours in French language, literature and culture. Advanced students receive 7 semester hours of credit for language study appropriate to their level and 7 hours for completion of four literature or culture courses such as—

- French Society and Culture
- History of French Art
- History of French Cinema
- Politics and Economics of Contemporary France
- Twentieth-Century French Literature
- French and Francophone Literature
- Contemporary French History

All students take a 1-credit course related to their cross-cultural experience, taught by the program director. This course fulfills the Cross-Cultural Engagement core requirement.

Completion of French 215 and 216 is required

to participate in the Semester in France's advanced program. The director for 2005 is J. Vos-Camy.

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 Centre for Applied Theology and Mission. The 2004 program director is D. Hoekema, of the Philosophy Department. All students enroll in the two courses offered by the program director, a course in the local language (Twi), and in at least one of two courses taught by staff of the Institute.

The courses offered by the program director:

305 Worldviews of Africa, Past and Present (3). An exploration of African culture in historical and contemporary contexts as it relates to the nature of the world, the place of humankind in relation to the natural and supernatural, and the responsibilities of individuals. During the final weeks of the course the focus is on the conflicts and convergences among diverse cultural traditions in West Africa today, with special emphasis on the dramatic growth of Islam and Christianity.

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. Excursions to sites such as slave forts, the Fante homeland, the historic city of Kumase, and the Museum of Ghana are included. Fulfills Cross-Cultural Engagement core requirement.

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.

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.

279 Government and Politics in Africa (3). A historical, analytical and comparative study of government and politics in selected Afri-

can countries, with particular attention to trends and problems.

Development Studies in Honduras

The capital of Honduras, Tegucigalpa, is the site of this program, offered each spring semester. It offers students a first-hand experience living in a less developed county as they consider or prepare for further study or careers in third-world development or missions. Students live with Honduran families and attend classes on the campus of La Universidad Pedagógica Nacional. Development studies classes are taught consecutively by the 2004 program director, R. Hoksbergen, of the Department of Economics and Business; the Spanish language courses are taught by members of the faculty of the Universidad.

Preference for admission is given to Third World Development Studies students. Applicants should have at least a basic knowledge of the language, equivalent to Spanish 101. The academic components of the program are as follows:

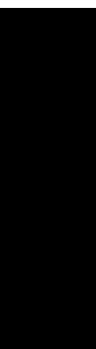
210 Exploring a Third World Society (3). A study of the history, economics, and politics of Honduras as an example of a third-world country. Fulfills Cross-Cultural Engagement Core.

211 The Problem of Poverty (3). Analysis of development theories and major issues such as population and the environment and how Christian values can shape development theories.

212 Development Theory in Practice (3). Various perspectives on development practices from guests representing Christian and non-Christian development organizations, followed by a week of living with a Honduran family to see the impact of development in a community.

SPAN XXX Spanish Language Study (3-6). Course choice depends on previous course work. See the chair of the Spanish Department for advice.

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producers or recording engineers. The Executive track is designed for business, arts management 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 or original music and earn 16 semester hours of credit.

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 CSSP offers courses dealing with ecosystems, community development, cultural anthropology and literature of the local

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 (6 credits), a required seminar on Faith, Film and Culture (4 credits) and electives in filmmaking, acting, screen writing, 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. Students earn 16 semester hours of credit.

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, operated by Houghton College, is conducted in Ashland, Oregon, during the

philosophical texts, writing clear expository prose, and engaging in faith-oriented inquiry. The course aims to help students use philosophy to respond to central issues in human life and in contemporary society. *Staff.*

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. *D. Ratzsch.*

173 Introduction to Symbolic Logic (3). F A course in elementary symbolic logic, including some modal logic. This course is recommended especially for science and mathematics majors, and for those intending to study philosophy on the graduate level. Open to qualified first-year students. *K. Clark.*

Intermediate Systematic Courses

225 **Chinese Thought and Culture (4)**. 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, Lao Tzu, Chuang Tzu, Mencius, and Mao-Tse Teng. 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. *K. Clark.*

Intermediate Historical Courses

All intermediate courses presuppose one

quantificational logic. Taught jointly with the Mathematics Department. Also listed as Mathematics 381.

383 Metaphysics (3). * A study of selected topics of metaphysics. Not offered 2004-2005.

390 Readings and Research

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

ing a special project. Alternatively, a student in a 100- or 200-level physics or 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 INTEGRATED SCIENCE STUDIES MINOR AND MAJOR

Designed for students in the Elementary Education Program wishing to major or minor in science. More detailed descriptions of these programs can be found in the *Teacher Education Program Guidebook*. Science education advisors: K. Bergwerff, Geology Department; S. Haan and J. Jadrach, Physics Department.

MINOR

A minimum of 26 semester hours of science must be taken, including the following:

Biology 112
Chemistry 101
Geology 120
Physics 112
Physics 212
IDIS 313

One advisor-approved elective in science

MAJOR

A minimum of 38 semester hours of science must be taken, including all the courses prescribed for the minor, plus the following:

Astronomy 110 or 211
Biology 115

One additional advisor-approved elective in science

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

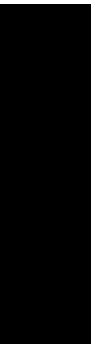
Mathematics 161
Mathematics 162
Mathematics 231 or 256
Mathematics 261 or 232

COURSES

Introductory Courses

110 Physical Science (4). This course focuses on scientific theories and models that provide practical understanding of everyday phenomena and modern technologies. Historical case studies, as well as hands-on laboratory activities, give insight into the methods of physical science and the process of discovery. The course also addresses the status of scientific knowledge in the context of religious belief and highlights certain ethical issues related to technological applications. It is intended primarily for non-science majors. Laboratory. Prerequisite: Mathematics 100 or high school equivalent. Not offered 2004-2005.

112 Physical and Earth Science for Elementary School Teachers (4). * F and S. This course uses a hands-on 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, climate and weather, convection, the particulate nature of matter, energy, electricity and magnetism, and the development of evidence in scientific investigations.



Political Science

Professors R. De Vries, D. Koopman, J. Penning, C. Smidt, W. Stevenson (chair)

Associate Professor S. Goi

Assistant Professor A. Patterson

The department offers a variety of courses in the areas of American politics, international relations, comparative politics, and political theory. Students majoring in political science may follow either the regular major program or a program of concentration in international relations or public administration.

POLITICAL SCIENCE MAJOR:

33 semester hours

Political Science 101

Political Science 207

Political Science 240

Political Science 251

208 Urban Politics (3). S. 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, the politics of urban planning, and metropolitan reform. *J. Penning*

209 Public Administration (3). * An introduction to public administration, focusing on organization theory, public management, human resources administration, and budgeting. The course examines the politics of public agencies and non-profit organizations. Not offered 2004-2005.

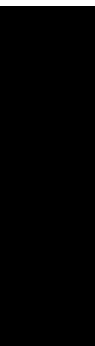
212 American Public Policy (3). S. American public policy is studied, focusing on 1) the ways in which social, economic, and political institutions influence policy formation, 2) methods of evaluating public policy, and 3) the historical development and current content of American public policy in key areas such as defense, social welfare, criminal justice, and education. *J. Penning.*

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. *Staff.*

251 Methods in Political Analysis (3). F A study of the philosophical assumptions, theoretical issues, methodological approaches, and the analytical tools used in analyzing American, comparative, and international politics. *C. Smidt.*

271 Religion and Politics in Comparative Perspective (3). S. 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. *C. Smidt.*

275 West European Politics (3). 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 u oaches, and



Psychology

Professors C. Beversluis, M. Bolt, J. Brink (chair), W. Joosse, **P. Moes, A. Shoemaker, S. Stehouwer, R. Terborg, **G. Weaver

Associate Professors L. De Haan, M. Gunnoe, D. Tellinghuisen

Assistant Professor S. da Silva

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 “people-related” jobs in business, education, and the social services, or they pursue graduate study in psychology and related fields. A student handbook for majors can be obtained from the department office.

The core requirement in psychology is met by Psychology 151. Education 302 satisfies the core requirement only for students in teacher education programs.

PSYCHOLOGY MAJOR

Psychology 151

Psychology 255

Psychology 256

Psychology 399

One 330-level Psychology course

Two 300-level Psychology courses

Three Psychology electives (may include one interim)

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, but not both, as part of their major.

Psychology 204 is offered as a standard developmental course some semesters and as a cross-cultural engagement course other semesters. To determine which course best suits your needs, please pick up a Psychology 204 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 intending to do doctoral work in psychology should include Psychology 356 in their program of concentration and should plan their program with a departmental advisor. This course is less important for masters and/or counseling programs.

All majors must complete the Psychology Department Senior Assessment in the spring of the year they intend to graduate.

PSYCHOLOGY MINOR

Psychology 151

At least one from Psychology 255, 330, 331, 332, 333 or 334.

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, or 334

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.

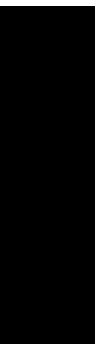
COURSES

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, personal-

ity 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. *Staff.*

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. *W. Joosse, L. De Haan.*

204 Developmental Psychology: Child (3). * An overview of normal development from conception through adolescence. Organization is chronological (infant, 7 T2 Studentw [(2le c t3to takeue 15. be occ.33scenes4 1o19 0.038





evaluated and applied from a Reformed biblical perspective. *Staff.*

330 Psychology of Motivation (4). * 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 inter-relationships among different approaches to psychological theory and research. Two-hour laboratory each week. Prerequisite: Psychology 151 or permission of the instructor. Not offered 2004-2005.

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. Not offered 2004-2005.

332 Psychology of Learning Processes (4). * S. 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. *R. Terborg.*

333 Brain and Behavior (4). * F and S. 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 neuropsychological testing. Prerequisites: Psychology 151 and Biology core or permission of the instructor. *P. Moes, S. da Silva.*

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. *D. Tellinghuisen.*

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. *D. Tellinghuisen.*

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. *A. Shoemaker*:

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

Three courses chosen (in consultation with an advisor) from the following: Religion 255, 352, 353, 354, 355, Geography 320, 240, Sociology 153, Economics 337, TWDS 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).

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. *Staff.*

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. *Staff.*

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. *W. Lee, C. deGroot.*

212 Old Testament Historical Books (3). F and S. 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. *W. Lee.*

213 Psalms and Wisdom Literature (3). F and S. Students examine the books of Psalms, Proverbs, Job, and Ecclesiastes. The three fo-

structive biblical theology, focusing on central themes, the problem of the unity and diversity of scripture, the “center” of biblical

235 Eschatology (3). F. 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. *T. Thompson.*

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. *J. Witvliet.*

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

life; Marian devotion; ecumenism; ecclesiastical authority and papal infallibility; and the pontificate of John Paul II. Prerequisite: 131 or an Intermediate theological studies course. Not offered 2004-2005.

341 Studies in Early and Medieval Theology: Augustine and the Augustinian Tradition (3). *F Augustine is one of the greatest figures in the history of Christian theology. This course studies several of his major works and the consensus which developed around his thought throughout the middle ages. The class begins with an in depth look at Augustine, then surveys key Augustinians throughout the middle ages, culminating with a deeper look at two of the great 13th century theologians, Bonaventure and Aquinas, each of whom appropriates Augustine in a distinctive way. Prerequisite: 131 or an intermediate theological studies course. *L. Smit.*

343 Studies in Reformation Theology (3). *S. A study of selected doctrinal topics and central figures of the sixteenth century Protestant Reformation. Prerequisite: 131 or an intermediate theological studies course. *A. Griffioen.*

345 Studies in Contemporary Theology (3). * A study of selected figures, movements, and doctrinal topics in twentieth century theology. Prerequisite: Biblical and Theological Foundations Core, or permission of the instructor. Not offered 2004-2005.

Religious Studies

250 Introduction to the Study of Religion (3). F 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. *R. Plantinga.*

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. *R. Plantinga, D. Obenchain.*

352 Judaism (3). *F A study of the major developments in Jewish history, thought, andSt33twe of od.r, n

Other Courses and Seminars

252 Introduction to Mission (3). S. A general introduction to Christian mission in biblical and historical perspective. This course surveys the biblical and theological foundations for mission, and the church's interpretation and implementation of the task of

Sociology and Social Work

Professors C. Kreykes Brandsen (chair and director of Social Work), F. De Jong, P. DeJong (Social Work Practicum Coordinator), P. Freston, **B. Hugen, M. Loyd-Paige, B. Omolade

Associate Professors, *T. Vandenberg, †K. Ver Beek

Assistant Professors K. Dougherty, M. Mulder, L. Schwander, J. Tatum (Pre-law Advisor)

Instructor S. Diepstra

Adjunct M. Baker

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 the group on the individual. Urban, cross-cultural, criminology and/or family studies are some possible groupings within sociology that majors might want to pursue. Social work is the study of theory and practice principles related to 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 Metropolitan Center 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 complete six honors courses with a minimum of three in sociology. They must also maintain a minimum GPA of 3.5 overall and 3.5 in sociology.

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. Baker or 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 must 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 profes-

sional social workers. Since enrollment in the community-based 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 a social work major of twelve courses and several core requirements. The social workdenW .o8.9118.Wlette

Fourth year

Social Work 371, 372, 373, and 380

Electives

Interim: Social Work 381

Semester hours

20

3-6

4

The social work courses are described on pages 239–240. 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 complete at least six honors courses of which at least three must be in social work. 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. Students must also maintain a minimum cumulative GPA of 3.5.

SOCIAL WORK INTERNSHIPS

All social work students must complete a 400-hour internship during their senior year. Internships are completed in Western Michigan, through the Chicago Metropolitan Center, 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 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

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. *2M. Loyd-Paige, M. Mulder.*

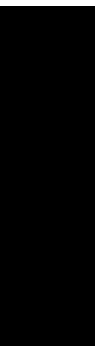
252 African Diaspora in the Americas (3). This course examines selected topics that have arisen in recent African Diaspora-focused research. Using a comparative model, this course investigates the experiences of Black people from a variety of societies and nations (such as Brazil, Cuba, Haiti, Jamaica, 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. Not offered 2004-2005.

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. *T. Vanden Berg, D. Wilson.*

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, and regression.

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lated 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. *M. Baker; M. Mulder*

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, and Philosophical Foundations. *K. Dougherty*.

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. *D. Isom*.

Graduate Courses

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

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. *S. Diepstra, Staff*.

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 defini-

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Spanish

Professors M. Bierling (chair), S. Clevenger, E. Miller

*Associate Professors M. Pyper, C. Slagter, *D. Zandstra*

Assistant Professors A. Hernandez Raney, O. Leder, M. Rodríguez, A. Tigchelaar, D. TenHuisen

Core Requirements. Students must demonstrate competency in a foreign language that is equivalent to two years study in college. Normally, this is demonstrated by com-

ELEMENTARY EDUCATION MAJOR IN SPANISH (30-32 hours)

Spanish 301
Spanish 302
Spanish 329
One literature course from Spanish 330-333
Spanish 340
Spanish 356
Culture course or study abroad
Advisor-approved electives, which may include 202 or 203, to reach a minimum of 30 hours

ELEMENTARY EDUCATION MINOR IN SPANISH (20-22 hours)

Spanish 301
Spanish 302
Spanish 356
Advisor-approved electives, which may include 202 or 203, to reach a minimum of 20 hours

BILINGUAL EDUCATION GROUP MINOR FOR ELEMENTARY EDUCATION (25 hours)

Interdisciplinary 301
Spanish 310 **
Spanish 340 **
English 334 or Education/CAS 311
History 238
History 229, 254, or 356
Sociology/Communications 253

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 foreign language requirement for the bachelor's degree, as well as earn 3 hours of interim credit. Calvin. 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 UNED. Spanish 301 is a prerequisite for the advanced program. The advisor for this program is A. Tigchelaar.

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, Hon-

by those learning a second language. This course is required for elementary teaching majors, secondary teaching majors and minors, and bilingual education minors. Prerequisite: Spanish 301. *M. Bierling.*

Literature Courses

329 Introduction to the Study of Hispanic Literature (3). F and S. This course introduces students to the major movements and genres of Hispanic literature and to the accompanying vocabulary. Students learn how to read and evaluate literature in a second language through short prose, drama, and poetic texts, and they sharpen their skills in critical writing and literary analysis. This course is designed to prepare students for survey and advanced-level literature courses in the Spanish Department. Oral presentations and/or research paper required. Prerequisite: Spanish 301 or concurrent registration with Spanish 301. *S. Clevenger, C. Slagter.*

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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: One course from Spanish 330- 333, or permission of the instructor. *C. Slagter*.

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 Calderon cycles, the origins of the modern Spanish novel, and the literature of the Counter-Reformation. Oral presentations and research papers are required. Prerequisite: One course from Spanish 330- 333, or permission of the instructor. Projected offering, spring 2006.

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, Romanti

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. Prerequisite: Completion of or concurrent registration in Education 302/303. *D. Smith.*

358 Aiding in the Foreign Language Classroom (3). I. Students participating in this seminar will 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, participating in class discussions, daily diaries, and an oral presentation. Prerequisite: Spanish 301 with a grade of "B" or better. *M. Rodríguez.*

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 students to share their experiences and insights. Prerequisite: Completion of or concurrent registration in Education 302/303. *D. Smith.*

Interim 2005

(Unless otherwise indicated, all courses are 3.0 semester hours.)

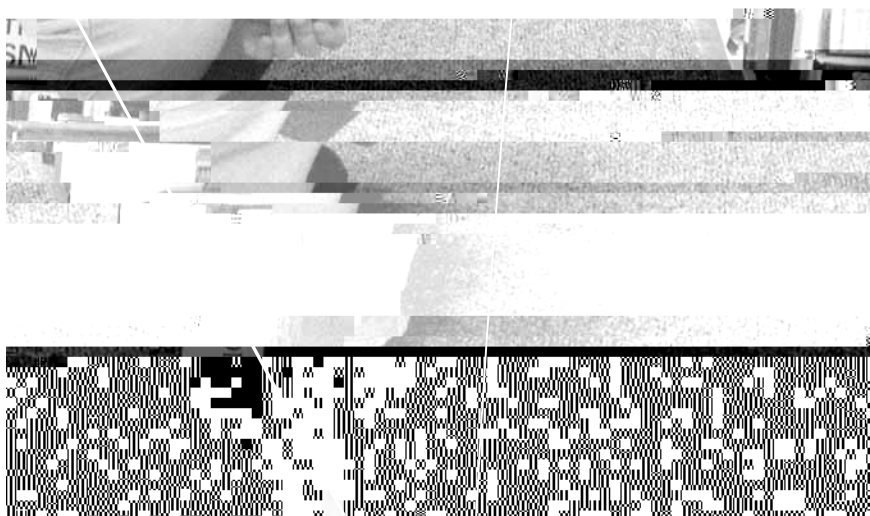
DEVELOPING THE CHRISTIAN MIND INTERIMS

Ordinarily, all first-year students are required to complete a course in Developing the Christian Mind (DCM). Students may choose a section reflecting their interests or major.

Number	Title	Instructor
IDIS W50 01	DCM: The Brain, the Mind, and the Mystery of Consciousness	S. Matheson
IDIS W50 02	DCM: Societal Views on Drugs	R. Nyhof
IDIS W50 03	DCM: The Totalitarian Temptation	R. Bytwerk
IDIS W50 04	DCM: Living Simply in a Complex World	P. Goetz
IDIS W50 05	DCM: Hollywood Movies, Culture, and Morality	C. Plantinga
IDIS W50 06	DCM: A Christian Response to Racism	G. Monsma
IDIS W50 07	DCM: Reading Banned Books	K. Saupe
IDIS W50 08	DCM: UFOs, Psychics, and Pseudoscience	J. Frens
IDIS W50 09	DCM: Men and Women at Work	S. Roels
IDIS W50 10	DCM: Analyzing Sport in Our Culture	J. Bergsma
IDIS W50 11	DCM: Utopian Literature	C. Engbers
IDIS W50 12	DCM: Dramatic Families	D. Urban
IDIS W50 13	DCM: The Holocaust, History	IDIS W5i9hM4.1 (DCM: The Ha r) 14.1 (k 0.00D

IDIS W12	The South African Miracle – <i>Off campus</i>	M. Heun T. Kuperus
IDIS W13	Dutch Landscapes – <i>Off campus</i>	H. Aay R. Hoeksema
IDIS W14	Cultures of Cambodia: Past and Present – <i>Off campus</i>	L. De Rooy J. Ubels
IDIS W15	Harness the Wind: Learn How to Sail – <i>Off campus</i>	S. Vander Linde D. Freeberg
IDIS W16	Capital Culture in Scandinavia – <i>Off campus</i> (Summer Session, 2005)	
IDIS W17	Backcountry Yellowstone – <i>Off campus</i>	D. Bosch D. Van Baak
IDIS W18	Fitness and Good Nutrition as a Lifestyle: Biking in Australia – <i>Off campus</i>	R. Blankespoor L. Louters
IDIS W19	Race Relations in East-West Perspective – <i>Off campus</i> (Summer Session, 2005)	P. Szto
IDIS W20	Visual Culture in Hawaii – <i>Off campus</i>	F. Speyers
IDIS W21	Tibet: The Elusive Land of Snows – <i>Off campus</i>	K. Selles
IDIS W22	Celebrating Sexuality: Dating, Mating, and Relating	C. Blankespoor

ENGR W83	Water and Wastewater Treatment Design	D. Wunder
ENGR W84	Design with an Eye to the Environment	A. Sykes
ENGR W85	Advanced Topics in Chemical Engineering Design	J. Van Antwerp
FREN 112	Multisensory Structured French II (core)	J. Van Antwerp
FREN 122	Intermediate French (core)	I. Konyndyk
GEOL W10	Geology of the National Parks	L. Mathews
GEOL 306	Mineralogy and Petrology II (four semester hours)	R. Spoelhof
GERM W80	German Interim Abroad – <i>Off campus</i>	Staff
GERM 122	Intermediate German (core)	D. Smith
GREE 101RA	Review Greek (noncredit)	M. Buteyn
GREE 101RB	Review Greek (noncredit)	J. Veenstra
HE 307	Community Health	J. Veenstra
HIST W10	Vietnam and Cambodia – <i>Off campus</i>	D. Bakker
HIST W11	The Civil War and Reconstruction	W. Van Vugt
HIST W12	Museums: A Place to Work?	D. Miller
HIST W80	The American Revolution	D. Postema-George
HIST W81	Russia: In Search of a New Identity	J. Bratt
HIST 294	Research Methods in History (two semester hours)	V. Marinov
MATH W80	Introduction to Mathematical Modeling	F. Roberts
MATH W81	Curricular Materials for K–8 School Mathematics	B. Berglund
MATH W82	Number Theory and Cryptography	J. Bradley
MATH 160	Elementary Functions and Calculus (core)	R. Wagstrom
MUSC W10	Reformed Worship Worldwide – <i>Off campus</i> (Summer Session, 2005)	J. Koop
MUSC W11	Music Therapy: An Introduction	E. Fife
MUSC W12	An Introduction to Wagner's <i>Ring</i>	J. Ferdinands
MUSC W40	Introduction to the Fundamentals of Music Theory	H. Boonstra
NURS W60	Nursing in New Mexico – <i>Off campus</i>	E. Brink
NURS W61	Christian Nursing in the Philippines – <i>Off campus</i>	J. Navarro
NURS W62	Belize: A Nursing Experience – <i>Off campus</i>	M. Delaski
NURS W63	Nursing Specialties Practicum	H. Slenk
PE W10	Women's Health	J. Hamersma
PE W11	Teaching and Coaching in Mexico – <i>Off campus</i>	B. Feikema
PE W12	Sport Psychology	C. Feenstra
PE W40	Exploring Exercise Science and Sport Management	R. Boss Potts
PER 131A	Badminton I (one semester hour)	L. Michalczyk
		A. Warners
		J. Pettinga
		N. Van Noord
		N. Meyer
		J. Walton
		K. Gall



Financial Information

Tuition and Fees

Tuition for the academic year is \$17,770; on-campus housing with a 21 meal plan is

Due Date	Tuition	Room & Board		
		21 Meals	15 Meals	10 Meals
1st Semester				
September 1, 2004	\$2,962	\$1,031	\$1,002	\$955
October 20, 2004	2,962	1,031	1,002	955
November 24, 2004	2,961	1,031	1,001	955
Total for 1st Semester	\$8,885	\$3,093	\$3,005	\$2,865
2nd Semester				
January 4, 2005	\$2,962	\$1,031	\$1,002	\$955
March 16, 2005	2,962	1,031	1,002	955
April 20, 2005	2,961	1,030	1,001	955
Total for 2nd Semester	\$8,885	\$3,092	\$3,005	\$2,865
Academic Year	\$17,770	\$6,185	\$6,010	\$5,730

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. If a student maintains eleven semester hours in both the first and second semester, the regular semester hour interim tuition charge will be dis-

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 expenses, the Office of Scholarships and Financial Aid will determine whether repayment of a portion of the cash disbursed is required. The student will be notified if there has been an overpayment that needs to be repaid. Upon collection, the overpayment will be returned to the appropriate financial aid programs in the same order as listed above.

Students withdrawing from one or more courses, but not discontinuing will have

Programs Affected – The programs to which these standards apply are: Federal Pell Grants, Federal Supplemental Educational Opportunity Grants, 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

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 2004-05

	<i>Grant per semester hour, if paying by the semester hour</i>	<i>Grant per semester, if paying full tuition</i>
<i>For undergraduates enrolled at least half time</i>		
Michigan students	\$30	\$375
Students from Illinois, Indiana, Ohio, Wisconsin, and Ontario, Canada	\$40	\$500
Students from other states, provinces, and countries	\$50	\$625
<i>For undergraduates enrolled less than half time</i>		
Michigan students	\$20	
Students from Illinois, Indiana, Ohio, Wisconsin, and Ontario, Canada	\$25	
Students from other states, provinces, and countries	\$30	

Calvin Merit-Based Scholarships

Incoming first-year students are considered automatically for the merit-based scholarships described below based upon information received at the time of admission and are not required to file a separate scholarship application form except where noted. For maximum consideration, students must be admitted by February 1.

Factors considered in awarding Presidential, Dean's, Faculty Honors, and Honors Scholarships include the student's high school grade point average, class rank, ACT or SAT scores, and involvement in, leadership of, and honors received for participation in activities outside the classroom. Typically, a grade point average of 3.50, an ACT composite score of 25, or combined SAT scores of 1150 are the minimum qualifications for any of these scholarships. Students selected are awarded the best scholarship for which they qualify.

The Calvin National Merit Scholarship is available for a total of four years, as long as the recipient is continuously enrolled at Calvin. The Presidential, Dean's, Faculty Honors, and Honors 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 Presidential Scholarship, 3.40 for the Dean's Scholarship, 3.30 for the Faculty Honors Scholarship, and 3.20 for the Honors Scholarship. Presidential Scholarship recipients with a grade point average between 3.40 and 3.49 will receive the Dean's Scholarship for the following year; both 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; and recipients of Presidential, Dean's, and Faculty Honors Scholarships with a grade point average between 3.20 and 3.29 will have their scholarships renewed as Honors Scholarships. The grade point average used to determine renewal is the average at the end of second semester for first-year students and the average at the end of the interim for other students.

Calvin National Merit Scholarships Scholarships of \$8,500 are awarded to all National Merit Finalists who have earned a high school grade point average of 3.50 or

higher, have designated Calvin as their first choice college with the National Merit Corporation, and are 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 \$8,500 as a national merit scholar.

Presidential Scholarships Scholarships of \$5,500 are awarded to a select group of top scholarship candidates who are not selected to receive a Calvin National Merit Scholarship. More than 350 of these scholarships are offered to prospective first-year students each

arship had a median high school GPA of 3.95 and either a median ACT composite score of 30 or a median SAT combined score of 1330. The Presidential Scholarship is renewed if the recipient maintains a Calvin GPA of 3.50.

Dean's Scholarship of \$3,500

is offered to the next group of prospective students who are not selected to receive a Calvin National Merit or Presidential Scholarship. Typically, more than 180 Dean's Scholarships are offered each

arship had a median GPA of 3.85 and either a median ACT composite score of 27 or a median SAT combined score of 1240. High school valedictorians and National Merit Semifinalists who have a GPA of 3.50 or higher and test results of at least a 25 on the ACT or a total of 1150 on the SAT are also assured of this as a minimum scholarship award. The Dean's Scholarship is renewed if the recipient maintains a Calvin GPA of at least 3.40.

Faculty Honors Scholarships Scholarships of \$2,500 are awarded to the next group of first-year students who are not selected to receive a Calvin National Merit, Presidential, or Dean's scholarship. These scholarships are offered to more than 000 students

Honors Scholarships Scholarships of \$1,500 are awarded to the top first-year students who are not selected to receive a Calvin National Merit, Presidential, Dean's, or Faculty Honors scholarship. More than 270 Honors Scholarships are offered to prospective first-year students each year. Honors Scholarship recipients typically have a median GPA of 3.65 and either a median ACT composite score of 25 or a median SAT combined score of 1140. The Honors Scholarship is renewed if the recipient maintains a Calvin GPA of 3.20.

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 those who have an 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. The grade point average used to determine renewal is the average at the end of second semester for first-year students and the average at the end of the interim for 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 an 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 an 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 an 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.

Scholarships for Transfer Students Calvin awards scholarships of \$5,500, \$3,500, \$2,500, and \$1,500 to prospective transfer students based on their academic record and potential to be successful at Calvin. Selection is based on the student's academic record

higher. Applications are available from the Admissions Office and are due February 1.

Multicultural Awards of \$1,500 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. Awards are renewed for up to four additional years for students who maintain a cumulative grade point average of 2.00 or higher at Calvin.

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 Scholarships and Financial Aid section of the Calvin website which is accessible at www.calvin.edu/admin/finaid/.

Roger L. and Sandra L. Alderink Family Scholarship Mr. and Mrs. Roger and 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 staffs at both Unity Christian, where Mr. Alderink and the Alderink children attended, as well as at South Christian and also at Calvin. They have chosen this scholarship as a way of supporting those who have the desire and vision to excel in a Christ-cen-

tered education. Recipients must demonstrate a reformed faith commitment as evidenced by involvement in volunteer organizations and activities, other than athletics, in church or school. Two scholarships of \$2,500 were awarded for 2004-05. Recipients are selected by each high school.

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 need to be entering the junior or senior year, have a grade point average of 3.00 or higher, be pursuing a degree in medicine, and show some evidence of financial need. For 2004-05 one scholarship of \$2,500 was awarded. To apply for this scholarship, use the Upper-class Named Scholarship Application available through KnightVision in January.

Clarence and Anne Beets Scholarship Dr. William C. (Clarence) and Mrs. Anne Beets contributed a gift to Calvin, the income from which is used to provide two scholarships of \$2,000 each. Dr. and Mrs. Beets are interested in helping 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. To be consid-

able to indicate that a parent or grandparent has or had a working relationship with Belden Brick & Supply Company. A grade point average of 3.00 or higher is required for first-year students. Financial need is not required but may be considered. One scholarship of \$1,500 was awarded for 2004-05. Letters of application detailing an established relationship with Belden Brick & Supply should be sent to the Office of Scholarships and Financial Aid by February 1.

Beré Memorial Scholarship Calvin received a gift from Mrs. Jeanne L. Beré in memory of her late husband, Paul Beré, the income from which is used to award one scholar-

the junior or senior class levels. Selection is based primarily on the student's academic record and potential, although financial need is also taken into consideration. Applicants must be entering their junior or senior year with a cumulative grade point average of 3.30 or higher. First preference is given to candidates with interest in world missions and then to those planning to attend Calvin Seminary and to enter parish ministry. Two scholarships of \$1,500 were awarded for 2004-05. To apply for this scholarship, use the Upper-class Named Scholarship Application available through KnightVision in January.

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. Each year certain students receiving general merit based scholarships are designated as Bontekoe Nursing Scholars. Additionally, for 2004-05, two nursing students were selected to receive a Bontekoe need-based nursing scholarship in the amount of \$2,000 each. No separate application is required.

Robert and Marjorie Boot Scholarship

Mr. and Mrs. Robert and Marjorie Boot of Kalamazoo, Michigan established this scholarship because of their desire to return part of their blessings for use by future generations. Recipients must be returning students with a cumulative grade point average of 3.00 or higher and must 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
,on TD

Ronald Buikema Memorial Scholarship The family of the late Ronald Buikema of South Holland, Illinois established this scholarship in his memory. 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. The scholarship is for students entering the senior year who are planning to attend law school or a graduate program in politics or government who have demonstrated leadership skills and involvement in community or extracurricular college activities. A grade point average of 3.00 or higher is required. Preference is given first to graduates of Illiana Christian High School in Lansing, Illinois and secondly to graduates of other Chicago area high schools who meet the above criteria. If there are no qualified candidates from these high schools, others are considered. Two scholarships of \$1,500 each were awarded for 2004-05. To apply for this scholarship, use the Upper-class Named Scholarship Application available through KnightVision in January.

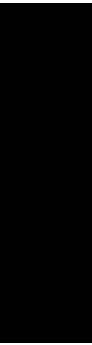
Butterball Farms, Inc. Scholarship Through an annual contribution from Mark Peters and Butterball Farms, Inc., one \$1,500 renewable scholarship is awarded each year to a first-year student with a minimum high school GPA of 3.50. First preference is given to children of current Butterball Farms, Inc. employees, then to students that have attended Potter's House Christian School, or residents of inner-city Grand Rapids. Children of Butterball Farms, Inc. employees must submit a letter of application to the Office of Scholarships and Financial Aid by February 1. For other applicants, no separate application is required.

Susan Lemmen Byker Honors Scholarship Each year two or more prospective students who are Honors Scholarship recipients are selected to receive the special 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. Preference for these schol-

arships is given to students from Unity Christian High School in Hudsonville, Michigan who are planning to pursue a program in Education. If there are no Honors Scholarship recipients from Unity Christian High School planning to study Education, students from Unity in other areas of interest will be considered. If there are no qualified candidates from Unity, students from other Christian high schools planning to study Education will be considered. No separate application is required.

Thomas F. Caldon, Jr. Memorial Scholarship This scholarship was established for a prospective first-year student who expresses a strong desire for coursework in a pre-medical, pre-law, engineering, or accounting program. Preference is given to first generation college students with a grade point average of 3.30 or higher. Two scholarships of \$2,200 were awarded in 2004-05. No separate application is required.

Calvin Academy for Lifelong Learning Scholarship The Calvin Academy for Lifelong Learning (CALL) is an organization affiliated with Calvin. An important purpose of CALL



consideration for scholarships is given to children of employees. If there are no children of employees who qualify, preference is given to prospective first-year students. Other factors that may be 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. One scholarship of \$1,500 was awarded for 2004-05. Prospective students with a parent employed by D & D Building, Inc. should send a letter of application to the Office of Scholarships and Financial Aid by February 1.

DaimlerChrysler Minority Scholarship The DaimlerChrysler Corporation provides Calvin with funds to award scholarships to promising ethnic minority students who are residents of Michigan and plan to pursue a career in business or education. Typically four scholarships of \$2,750 each are awarded on the basis of financial need to one student in each class level. No separate application is required.

Otto J. De Bruyn Family Scholarship Mr. Otto and Mrs. Marilyn De Bruyn established this scholarship to acknowledge their strong support of Christian higher education. First preference for this scholarship will be given to descendants of Mr. De Bruyn who are currently attending Calvin and are making satisfactory academic progress. If no descendants are identified, preference will be given to students pursuing a Physical Education major or minor. Candidates need to be entering the junior or senior year and must have a grade point average of 3.30 or higher. Three scholarships of \$2,500 each were awarded for 2004-05. To apply for this scholarship, use the Upper-class Named Scholarship Application available through KnightVision in January.

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. Scholarships are available to North American ethnic minority students who are entering the junior or senior year at Calvin, have a cumulative grade point average of 2.50 or

higher, and are pursuing or planning to pursue a program that will lead to a career of service to disadvantaged ethnic minority families or individuals. Three scholarships of \$1,300 each were awarded for 2004-05. To apply for this scholarship, use the Upper-class Named Scholarship Application available through KnightVision in January.

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 fund provides a way of combining these two very significant experiences with a desire to provide an opportunity for some young people to participate in Calvin's international travel interim program who might not otherwise have that opportunity. The De Jongs hope



three additional years with a cumulative grade point average of 2.50. Selection is made by Pella Christian High School. For 2004-05, four scholarships were awarded in the amount of \$1,500 each.

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, Osteopathic Medicine, and Physical Therapy are important alternatives to traditional medicine. Scholarship candidates must have a cumulative grade point average of 3.00 or higher and must be entering the junior or senior year. First preference will be given to those planning a career in Chiropractic Medicine, second preference to candidates in Osteopathic Medicine, and third preference to those in Physical Therapy. Financial need may be considered but is not required. Two \$1,100 scholarships were awarded for 2004-05. To apply for this scholarship, use the Upper-class Named Scholarship Application available through KnightVision in January.

Henry and Eunice DeWit Scholarship In appreciation for what Calvin has meant to the family of Henry and Eunice DeWit, this scholarship was established in their name by 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. To reflect Henry and Eunice's wide variety of interests, this scholarship is open to students entering any major or field of study. One scholarship of \$1,800 was awarded for 2004-05. No separate application is required.

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 help to attend Calvin and who would likely not be able to attend Calvin otherwise. Scholarships will be awarded to students who have been raised in the Reformed or Presbyterian traditions and who demonstrate a strong Christian faith. Recipients must qualify for need-based aid from Calvin, have a high school grade point average of 3.00 or higher, and be planning to pursue a major or pro-

gram other than Sociology. Scholarships can be renewed for three years for those who maintain a cumulative grade point average at Calvin of 2.50 or higher. One \$5,400 scholarship was awarded for 2004-05. No separate application is required.

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. Scholarships are awarded to prospective first-year students with exceptional financial need and renewed for those who maintain a cumulative grade point average at Calvin of 2.00 or higher. A high school grade point average of 3.00 or higher is required to be considered for the scholarship. Because of the Diekema family's interest in diversity, preference will be given to ethnic minority students. Two scholarships of \$2,100 were awarded for 2004-05. No separate application is required.

Dr. Paul and Mrs. Doris Dirkse Health Care Scholarship

The children of Thedford and Ruth Dirkse established this scholarship to honor their parents' long association with Calvin. Dr. Dirkse taught chemistry to students in the nursing program and Ruth Imanse Dirkse was Manager of the Bookstore and active in the Alumni Association. Candidates for this scholarship must be entering the junior or senior year, be pursuing a program in Nursing, and have a grade point average of 3.30 or higher. Seven scholarships of \$1,900 were awarded for 2004-05. To apply for this scholarship, use the Upper-class Named Scholarship Application available through KnightVision in January.

Mary Cannon Dively Scholarship

Ms. Mary Cannon Dively of Grand Rapids, Michigan has provided the college with funds for scholarships. Ms. Dively taught in Grand Rapids area schools for more than 40 years and believes

grade point average or higher, and qualify on

tional, 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 that 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. In 2004-05, one scholarship of \$2,300 was awarded. Prospective students with a relative employed by the Andy J. Egan Company should send a letter of application to the Office of Scholarships and Financial Aid by February 1.

Elenbaas Family Honors Scholarship Each year an engineering student who is receiving an Honors Scholarship will be designated as the Elenbaas Family Honors Scholar. Mr. Jack and Mrs. Eleanor Elenbaas have 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 one or more engineering students. No separate application is required.

Elmhurst Christian Reformed Church Scholarship Members of Elmhurst Christian Reformed Church in Elmhurst, Illinois established this scholarship in order to financially assist students who are members of Elmhurst CRC. Students from any class level are eligible to apply. Students interested in applying for this scholarship should contact Elmhurst Christian Reformed Church.

Emerson Minority Scholarship Calvin has received gifts from the late Mr. James Emerson and Mrs. Marjorie Emerson to be used for scholarships to North American ethnic minority students. Three scholarships of \$1,500 are awarded yearly on the basis of a student's academic record and financial need, with preference given to students from single-parent families. Returning students are considered, as well as incoming first-year students. A minimum grade point average of 2.50 is required for consideration. No separate application is required.

Enoch Grant With gratitude to God for their heritage, the Schuurings Family established the

Enoch Grant for first-year students from Hudsonville Unity Christian and Holland Christian high schools. When a student walks with God, that student reflects the love, joy, peace, forgiveness, kindness, self-control, humbleness, and generosity of God. Based on these qualities, the faculty of each school will nominate one graduating senior for a \$1,000 tuition grant 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. No separate application is required.

Ezra Scholarships Ezra, an Old Testament spiritual leader and also the Hebrew name for "help" is the namesake of these scholarships. The Ezra scholarship was established in appreciation of Calvin's administration and faculty for their valuable Christ-centered mentoring of students and was designed to assist students in continuing their education at Calvin in the hopes of earning a degree. Two scholarships will be awarded each year; one to a Biology student and one to an Education student in honor of a son and daughter-in-law who attended Calvin. Recipients should demonstrate Christian character, responsibility, gratefulness to Jesus Christ, and a need for financial assistance. No separate application is required.

John G. and Anne Feringa Scholarship Mr. John and Mrs. Anne Feringa of Rockford, Michigan have provided Calvin with funds for this scholarship out of a desire to help worthy, needy students with their college expenses. New scholarship candidates must be entering their first year at Calvin, have a

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. Frankena and Mrs. Frankena graduated from Calvin, as did their son Bart. The Frankenases are long-time supporters of Christian education, and now Mrs. Frankena wishes to provide others with the same opportunity she and her husband had to attend Calvin. Each year, one engineering student receiving a Dean's Scholarship will be designated as an August Frankena Memorial Scholar. No separate application is required.

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 each year 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. Recipients of this scholarship who wish to be considered for renewal must re-apply each year. Apply through the Grand Rapids Community Foundation.

Jerry and Lynne Granger Family Scholarship This scholarship is awarded to a senior at Lansing Christian High School in Lansing, Michigan who plans to attend Calvin the following year. Candidates must have a high school grade point average of 2.70 or higher and must exhibit Christian character and promise of growth. This scholarship is renewable for the sophomore year for students with a cumulative grade point average of 2.50 or higher. Four scholarships of \$1,300 were awarded for 2004p nfs8Selctivn is rmdc pb
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gree in the field of biomedical science. Two scholarships of \$1,900 were awarded for 2004-05. No separate application is required.

George G. Harper Scholarship Mr. and Mrs. Don and Carol Holtrop of Montague, Michigan have established this scholarship in honor of 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. The scholarship is designated for an African American minority student in the junior or senior year, with preference given to those pursuing a major or minor in English. Three scholarships of \$1,500 each were awarded for 2004-05. No Separate application is required.

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

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and interest in medical missions. One \$1,900 scholarship was awarded for 2004-05. To apply for this scholarship, use the Upper-class Named Scholarship Application available through KnightVision in January.

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 while they are still living to benefit another generation of Calvin students, with a special interest in assisting students with financial need. Candidates for this scholarship must have a grade point average of 2.50 or higher and may be entering any class level. Three scholarships of \$1,500 each were awarded for 2004-05. No separate application is required.

Heritage Class Scholarship Members of Calvin graduating classes of more than 50 years ago make annual donations to the Heri-

Unity Christian High School in Hudsonville,
Michigan to encourage these students to at-

rado have provided funds to encourage students from Canada planning to attend Calvin. One scholarship of \$1,500 is awarded each year to a student from Canada entering the first year at Calvin. The award is given to a well-rounded student who has participated in music, theater, and/or other service or extracurricular activities, not including athletics. The student's academic record, potential, and financial need are considered as well. No separate application is required.

Henry J. and Myrtle R. Kreulen Family Scholarship Dr. Henry and Mrs. Myrtle Kreulen of Grand Rapids, Michigan have established this scholarship out of gratitude for the Christian education they and several of their children and grandchildren have received at Calvin. The 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. New scholarships are awarded to prospective first-year students who demonstrate financial need and have a high school grade point average of 3.20 or higher. Preference is given to those with the greatest need who are not receiving other scholarships awarded by the college. Scholarships are renewed for a second year for those who maintain a cumulative grade point average at Calvin of 3.00 or higher. Three scholarships of \$1,500 each were awarded for 2004-05. No separate application is required.

Leonard M. Krull Scholarship As a result of a bequest to Calvin by the late Leonard M. Krull of Westborough, Massachusetts, scholarships are available each year to prospective first-year students from the Whitinsville, Massachusetts area who attend either Pleasant Street Christian Reformed Church, Fairlawn Christian Reformed Church, or the New England Chapel. The scholarships range from \$350 to \$1,250, with selection based on the student's academic record, ACT or SAT scores, and, in some cases, on financial need. Selection is made by the Committee on Scholarships and Financial Aid in consultation with a representative committee from the Whitinsville area. No separate application is required.

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 devel-

oped a sensitivity to the educational needs of displaced and minority people in the world. She established this scholarship program to assist minority students in obtaining a Christian college education at Calvin. New scholarships are awarded to North American ethnic minority students who demonstrate financial need. A high school grade point average of 3.00 is required for prospective first-year students, and a previous college grade point average of 2.50 is required for prospective transfer students. Scholarships are renewed for those who maintain a cumulative grade point average at Calvin of 2.50 or higher. Two scholarships of \$1,400 each were awarded for 2004-05. No separate application is required.

Kunnen Family International Student Scholarship Mr. Ron and Mrs. Anne Kunnen have established this scholarship in gratitude for God's blessings to them. The Kunzens 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. Each year one top international student will receive this \$5,500 scholarship. Preference is given to students pursuing a science or medicine degree, and to those 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.

Kunnen Family Mosaic Award Mr. Ron and Mrs. Anne Kunnen have established this scholarship in gratitude for God's blessings to them. The Kunzens 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. Each year one student receiving a Mosaic Award will be designated as a Kunnen Family Mosaic rec J TJ 0 (student will r) 18.emic excellence at C

will pursue academic excellence at Calvin, where excellence is the standard and not a goal. Each year one student receiving a Presidential Scholarship is designated as a Kunnen Family Presidential Scholar. Preference is given to graduates of South Christian High School in Grand Rapids, Michigan. No separate application is required.

Milton and Carol Kuyers Family Mosaic Award Each year ten or more students receiving Mosaic Awards are designated as Milton and Carol Kuyers Family Mosaic Scholars. The awards are funded by a gift from the Kuyers family and are given in recognition of their long-standing commitment to Christian education and their interest and work in ethnic minority communities. No separate application is required.

Wilbur A. Lettinga Family Scholarship Mr. Wilbur A. Lettinga has provided funds for this scholarship to encourage students from

Amos Nordman Foundation Scholarship
Funds have been received from the Amos

arships and Financial Aid by March 1st prior to his/her enrollment. If no descendants are identified other candidates will be considered. Candidates for the scholarship must be entering the junior or senior year, have a cumulative grade point average of 2.50 or higher and demonstrate qualities of strong character, leadership and concern for others. Preference will be given to students pursuing careers and developing skills needed to assist, counsel, help and/or teach children. For 2004-05 three scholarships of \$1,500 were awarded. To apply for this scholarship, use the Upper-class Named Scholarship Application available through KnightVision in January.

Paul and Thelma Schutt Family Medical Scholarship Dr. Paul and Mrs. Thelma Schutt of Grand Rapids, Michigan have provided the college with funds for this scholarship for students pursuing a Pre-medical or Nursing program. Candidates must be entering the junior or senior year, have a cumulative grade point average at Calvin of 3.00 or higher, and give some evidence of financial need. Preference is given to those who demonstrate a strong Christian character and a caring personality. One scholarship of \$2,000 was awarded for 2004-05. To apply for this scholarship, use the Upper-class Named Scholarship Application available through KnightVision in January.

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. The scholarship is a one-year scholarship for a prospective first-year minority student with a strong, demonstrated record of Christian or community volunteer work. Financial need will also be considered in deciding the recipient of this scholarship. One scholarship of \$1,500 was awarded in 2004-05. No separate application is required.

James E. Smith Presidential Scholarship Each year four students receiving Presidential Scholarships are selected as James E. Smith Presidential Scholars. These scholarships are in memory of James E. Smith,

awarded in 2004-05. Candidates for renewal must have a cumulative grade point average of 2.50 or higher. No separate application is required.

Edward C. and Hazel L. Stephenson Foundation Scholarship Each year Calvin receives a gift from this foundation to be used for scholarships. Typically, at least twelve scholarships of \$2,000 each are awarded. No separate application is required.

Sub-Saharan African Student Scholarship This scholarship was established by Al and Kay Bierling who were educators in Sub-Saharan Africa for over 30 years. It is their hope that recipients of this award will return to Africa after attending Calvin College and use their education to help improve the lives of Africans. Candidates must be from a Sub-Saharan African country, have attended a Sub-Saharan secondary school and demonstrate financial need. Candidates need to have a minimum grade point average of 2.70 or higher whether an entering freshman or an upper-class student.

Robert and Timothy Sullivan Scholarship Each year Calvin receives funds from the Sullivan Scholarship Fund Trust to be used for one scholarship to an incoming first-year student. The scholarship is awarded to a needy student from a high school in the greater Grand Rapids area. Selection is made on the basis of academic achievement, character, participation in extracurricular activities, and financial need. In 2004-05 one scholarship of \$1,500 was awarded. No separate application is required.

Summer Ministries Grant To encourage participation in summer Christian service activities, a grant of up to \$1,200 is available to students enrolled at Calvin the year after the summer experience. Awards are given to students who participate and are not paid in summer missions/

QUESTIONS? Call 616.771.1000 or visit www.calvin.edu/scholarships

attend Calvin. Recipients must have graduated from either of the above high schools, demonstrate financial need, have a high school grade point average of 3.00 or higher, and not be receiving other scholarships awarded by the college. Selection of recipients will alternate between the two high schools. Preference will be given to those preparing for a career in Christian service, such as teaching, social work, or work in the not-for-profit sector. One scholarship of \$1,200 was awarded for 2004-05. No separate application is required.

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. Candidates should be entering the junior or senior year, be pursuing a pre-law program or a degree in political science, and have a minimum cumulative grade point average of 3.00 or higher. One scholarship of \$1,400 was awarded for 2004-05. To apply for this scholarship, use the Upper-class Named Scholarship Application available through KnightVision in January.

Cornelia and Marvin Vanden Bosch Scholarship

Cornelia (Scholten) Vanden Bosch established this scholarship in 1981, shortly after the death of her husband, Dr. Marvin 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. This scholarship is established for physically disabled students with a disability that

new scholarships is given to those who have been involved with any recruitment program that has introduced them to the value and advantages of studying at Calvin. Four scholarships of \$2,700 each were awarded for 2004-05. No separate application is required.

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 28. Because John III was greatly influenced by his pastors, Mr. and Mrs. Vander Heide wish to offer scholarships to pre-seminary students who show promise of theological and pastoral leadership in the ministry of the Christian Reformed Church. Two scholarships of \$1,400 each were awarded for 2004-05. To apply for this scholarship, use the Upper-class Named Scholarship Application available through KnightVision in January.

Joseph and Ralph Gelmer Vander Laan Memorial Scholarship The Vander Laan family established this scholarship fund in memory of brothers Joseph and Ralph Gelmer Vander Laan. One scholarship is awarded to a prospective junior or senior pursuing a program in a health profession, with preference given to those interested in missions or some other type of Christian service. The other scholarships are awarded to top students in any area. For 2004-05, five scholarships of \$2,100 each were awarded. Selection criteria include the student's academic record, character, and need. To apply for this scholarship, use the Upper-class Named Scholarship Application available through KnightVision in January.

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 must be entering the junior or senior year, be pursuing a degree in Engineering, and have a minimum GPA of 3.20 or higher. To apply for this scholarship, use the Upper-class Named Scholarship Application available through KnightVision in January.

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 who demonstrates a strong Christian character and a caring personality. The scholarship is intended to provide assistance to a promising pre-med or nursing student entering their junior or senior year with a minimum grade point average of 3.30 or higher with some evidence of financial need. One scholarship of \$1,500 will be awarded annually.

Gerald and Jessica Vander Wall Scholarship Dr. and Mrs. Gerald and Jessica Vander Wall of Grand Rapids, Michigan established this scholarship because of their desire to help deserving students obtain a Christian college education. Scholarships are awarded to first-year students based on their academic record and financial need. A cumulative grade point average of 2.50 or higher is required to be considered. Two scholarships of \$1,600 each were awarded for 2004-05. No separate application is required.

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 may be entering any year of study and be pursuing any field of study. Preference will be given to non-traditional students

at least 30 years of age or older. Two scholarships of \$1,500 were awarded in 2004-05. Prospective students should send a letter detailing their qualifications to the Office of Scholarships and Financial Aid by February 1. Returning students may use the Upper-class Named Scholarship Application available through KnightVision in January.

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 45. Mrs. Van Dyke believes that the Lord led her to attend Calvin, and is grateful for the blessings she received while at Calvin and in subsequent years. The scholarship is intended to contribute to the enrollment of other students who, like herself, need some encouragement and resources. One new scholarship of \$1,000 is awarded each year to a senior from Lynden Christian High School who is planning to attend Calvin, with selection made by the high school. Scholarships are renewable for three additional years for recipients who maintain a cumulative grade point average at Calvin of 2.50 or higher.

William H. Van Dyke Memorial Scholarship Mrs. Janice Van Dyke of Oak Brook, Illinois established this scholarship in memory of her husband William who passed away of cancer in November of 1993. Each year, one scholarship of \$2,500 is awarded to a senior at Timothy Christian High School in Elmhurst, Illinois. Selection is made by the high school. Scholarships are renewable for three additional years for students who have a cumulative grade point average at Calvin of 2.50 or higher.

Vermeer Scholarships The Vermeer Charitable Foundation of Pella, Iowa established two scholarships at Calvin. Each year five or more 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. 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.

Factors considered include Christian character, promise of growth, and participation and leadership in activities other than athletics outside the classroom such as church,

ily 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. Each year a student receiving an Honors Scholarship will be designated as a Louis Vos Memorial Honors Scholar. No separate application is required.

Wallace (Dutch) and Olive Waalkes Memorial Scholarship Each year, one scholarship of \$2,500 is awarded to a pre-law student entering the junior or senior year at Calvin with preference given to prospective seniors. Candidates must be planning to attend law school after graduating from Calvin and have a grade point average of 3.00 or higher. To apply for this scholarship, use the Upper-class Named Scholarship Application available through

Peter and Esther Westra Family Honors Scholarship This scholarship provides the funds for Honors Scholarships to be awarded to prospective first-year students from Kalamazoo Christian High School in Kalamazoo, Michigan. Preference is given to students with financial need. If there are no qualified candidates from Kalamazoo Christian High School, prospective students from other schools in the Kalamazoo, Michigan area will be considered. No separate application is required.

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 for their lives. Candidates may be entering any class level and pursuing any academic field. First preference will be given to women over the age of 30 with children. Second preference will be given to minority students pursuing an education degree. For 2003-04 one scholarship of \$1,900 was awarded. To apply for this scholarship, use the Upper-class Named Scholarship Application available through KnightVision in January.

Martin P. and Florence DeGraaff Wiebenga The children of Mr. and Mrs. Martin and Florence De Graaff Wiebenga established this scholarship to recognize the contributions Florence Wiebenga made to Calvin and its students through her 17 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 could also benefit from the opportunities made available through a Calvin education. This scholarship is automatically renewable as long as the recipient maintains a cumulative grade point average of 3.00 or higher and continues to demonstrate financial need. For 2004-05, one scholarship of \$1,400 was awarded. No separate application is required.

Dr. Morris Wilderom Scholarship

evidence of an excellent, scholastic record in mathematics and involvement in mathematics activities. One scholarship of \$1,000 was awarded for 2004-05.

Edgar G. Boevé Art Scholarship Through the generosity of alumni and friends, this scholarship honors Edgar G. Boevé for his

scholarship must be Biology majors entering the junior or senior year. Preference will be given to those concentrating in botany. Four scholarships of \$2,500 each were awarded for 2004-05.

Chemistry Department

John A. Bolt Memorial Scholarship This



of the community. Candidates must be entering their junior or senior year with at least a 3.50 grade point average.

Bouwer Mentoring Scholarship Mr. and Mrs. John and Marian Bouwer established this scholarship for students in business, especially those who would benefit from a mentoring relationship. Criteria include leadership or entrepreneurial potential, and a grade point average of 3.00 or higher.

Margaret and Douglas Bush Family Business Scholarship The Bush family has provided the college with funds to encourage worthy students to prepare for positions in business and business education. Scholarships are awarded each year on the basis of 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.

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 should be entering the senior year with at least a 3.00 grade point average. Financial need is a secondary consideration.

Frank and Bernice Deppe Family Scholarship Frank and Bernice Deppe have been longtime supporters of Christian education and of Calvin. Mr. Deppe owned and operated a construction and tool equipment business and the Deppes wish to provide a scholarship to a junior or senior student majoring in Business, preferably aiming at a career in sales and marketing, with a grade point average of 3.00 or higher.

DeVos Business Scholarship Mr. and Mrs. Dick DeVos established this scholarship for incoming students who are planning to pursue an education in Economics or Business. This scholarship is intended to support students who demonstrated strong academic achievement throughout their high school careers and have financial need. Preference will be given to those who are first generation college students.

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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. The scholarship is awarded to students majoring in accounting who are entering their junior or senior year, display a strong Christian commitment, and show potential for leadership. A grade point average of 3.00 or higher is required. Financial need is a secondary consideration.

James R. Hertel Scholarship Mr. James Hertel established this scholarship in appreciation for the fine education he received at Calvin. The recipient should be a business or economics student entering the junior or senior year. Although the award is not based on the student's academic record, a grade point average of 2.70 is required.

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. Recipients must be entering their junior or senior year with at least a 2.70 grade point average. Financial need is a secondary consideration.

Rietberg Family Scholarship The Rietberg family established this scholarship 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 or public administration. Students must be entering the junior or senior year, majoring in business or public administration, and planning to participate in an internship or in the cooperative education program.

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 is awarded to students entering their junior or senior year who have potential for leadership in the fields of business or economics. Applicants should be first generation

college students with a grade point average of 3.30 or higher.

Jacob and Jennie Tuinstra Scholarship Alumna Doris Tuinstra, in honor of her parents, has provided a fund to generate income for scholarships to be awarded to sophomore or junior women students for their junior or senior year at Calvin. Recipients must be in a business major, a B. S. in Accountancy program, or a group major with an emphasis in business. Criteria for selection are primarily motivation and potential for Christian service in a business career, and secondarily academic record and financial need.

Charles J. VanDenBerg Family Business Scholarship

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. This award is intended to aid an upper-class student in pursuit of a business major or group major with an emphasis in business. Eligibility requirements include a minimum B- average and financial need. In addition, the student must exhibit leadership qualities as well as initiative in pursuing a business career. A non-resident of Michigan is preferred.

Bernard Vellenga, Jr. Scholarship The late Mr. Bernard Vellenga's wife and family established this scholarship in Mr. Vellenga's memory to recognize his Christian witness, example, and desire to help Christian young people pursue their goals in the business and economic life of our culture. Candidates must be entering the junior or senior year, have a cumulative grade point average of 3.00 or higher, some evidence of financial need, and be pursuing a program in Business Administration or Accounting. If these criteria are met, preference is given to those pursuing a program in Business Administration, to those 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.

John and Dorothy Wiest Accounting Scholarship This scholarship was established to acknowledge the Wiests' appreciation for Calvin students who have worked for them in the past. The scholarship is awarded to students majoring in accounting who are entering their junior or senior year. A grade point average of 3.00 or higher is required. Financial need is a secondary consideration.

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. The recipient should be a female business major entering her junior year. This scholarship is awarded in the fall of each year and is renewable for the senior year. **Johndents(Rntr)Mrd loemip**

Candidates for this scholarship should have a cumulative grade point average of at least 3.00 on a 4.00 scale, be a current Calvin student entering the junior or senior year, and be pursuing a program in education. Financial need, as defined for government programs is not required, but there should be evidence that the scholarship is needed to help meet educational expenses. A \$500 scholarship is awarded annually.

Kevin Dale De Rose Memorial Scholarship

Kevin De Rose was killed in an accident his junior year at Calvin in 1989. His family and friends have established this scholarship in his memory to be awarded annually to a student who demonstrates a love for providing Christian service in non-academic areas of life, as Kevin did. Candidates for this scholarship must be admitted to the teacher education program and have a cumulative grade point average of 3.00 or higher. If there are several candidates, preference will be given to those with the greatest need and those planning to pursue a career in teaching English at the secondary level. A \$1,500-2,000 scholarship is awarded annually.

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 College. Candidates for the scholarship must be in the junior or senior year at Calvin, majoring in Special Education with a cumulative grade point average of 2.75 or higher. First preference will be given to a student who has participated in a Friendship Ministries class at a church, Special Olympics or similar activities. One scholarship of \$1,500 will be awarded annually.

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 is established in their honor to help students entering the teaching and nursing professions. Candidates for this scholarship must be current Calvin students who will be entering the junior or senior year as a full time student at Calvin for the following year, be pursuing a program in nursing or education (scholarships will alternate between the two departments), have a cumulative grade point average of 3.00 or higher, demonstrate financial need, and, 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. One scholarship in the amount of \$1,500 was awarded for the 2004-05 academic year from the Education Department.

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. To be eligible for the scholarship, a student 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 based on criteria for financial aid, and be enrolled for graduate credit in a minimum of one to two courses per semester. \$2,000 or more is available each year with individual amounts depending on the number of qualified candidates.

Gerald L. Klein Memorial Scholarship This scholarship was established by Mrs. Beatrice Klein in memory of her late husband, Gerald L. Klein, a strong supporter of Calvin College during his lifetime, in thankfulness to God and in appreciation of what the college has meant to the Kleins' children and grandchildren. Three of the Kleins' children have graduated from Calvin in the field of education. The scholarship is intended to help students in the junior or senior year who plan to pursue a career in elementary or secondary Christian education. Candidates for the scholarship must meet the following criteria: be a current Calvin student entering the junior or senior year and planning to attend full time; be pursuing a program in elementary or secondary education, including special education; and have a cumulative grade point average of 2.75 or higher. Financial need as defined for government programs is not required, but there should be some evidence that the scholarship is needed to help meet educational expenses. If the criteria are met, preference will be given to applicants who demonstrate Christian character and concern for others through active involvement in church and community activities. Two scholarships in the amount of \$1,200 are awarded annually.

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 for this scholarship must be current Calvin students planning to enroll full-time the following year, be entering the junior or senior year, or be a post-baccalaureate student (fifth year seniors are eligible as well as seniors who are in their fourth year), be

pursuing a program in education, have a cumulative grade point average of 3.00 or higher, and demonstrate Christian character and concern for others through active involvement in church and community activities. Although financial need, as defined for government programs is not required, there should be evidence that the scholarship is needed to help meet educational expenses. If the previous criteria are met, preference will be given to candidates planning to pursue a career in a Christian school in an urban setting. Two to three scholarships of \$1,000 are awarded annually.

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 will be awarded to a student who has an interest in early childhood education. In addition to meeting the other criteria, the recipient will be able to 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 must be entering the junior or senior year (5th year students or those returning for an Education degree or Teaching Certification are also eligible) and have a GPA of 3.00 or higher. Two scholarships of \$1,500 were awarded for 2004-05.

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 for this scholarship must be entering their junior or senior year in the teacher education program, have at least a cumulative grade point average of 3.00 on a 4.00 scale, and give evidence that the scholarship is needed to help meet educational expenses. Preference will be given to descendants of his former students when they identify themselves on the application form. Two scholarships of \$1,000 are awarded annually.

Merven Education Scholarship Mrs. Laurie Hekman established this scholarship in honor of her parents, Arthur and Kathryn

Merven. 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 must be entering the junior or senior year, be pursuing an education degree and have a GPA of 3.00

given to students who have worked hard, volunteered, and been involved in extracurricular activities. One scholarship of \$2,000 is awarded annually.

Patti J. Morren Memorial Scholarship This scholarship was established by Mr. Jay and Mrs. Kathleen Morren of Grand Rapids 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 a student who is qualified to work with children with disabilities. They also set up this scholarship to allow a student to experience college life, something their daughter, Patti, could never do. Four scholarships of \$1,350 are awarded annually. Students who are awarded this scholarship and who are enrolled in the combined Grand Valley-Calvin program should note that the amount might be reduced to correspond with the tuition reduction incurred by taking courses at Grand Valley.

Kenneth and Katherine Olthoff Family Scholarship Mr. and Mrs. Olthoff have been very 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 school environment or a public school. In either case, 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 for this scholarship must be current students entering the junior or senior year, be pursuing a program in special education (MI), have a cumulative grade point average of 3.00 or higher, and be highly motivated and deeply committed to the field of special education (MI) as demonstrated by class work and extra-curricular activities. If all of these criteria are met, preference may be given to those with financial need. Two scholarships of \$1,750 are awarded annually. Students who are awarded

this scholarship and who are enrolled in the combined Grand Valley-Calvin program should note that the amount may be reduced to correspond with the tuition reduction incurred by taking courses at Grand Valley.

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 College and served as an elementary teacher in the Holland Christian Schools for 23 years. Candidates for the scholarship must be entering the junior or senior year at Calvin and be pursuing a major in Elementary Education. Special consideration will be given to a student from Bethany Christian Reformed Church in Holland, MI 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 candidates from Bethany CRC or descendants of Mrs. Ribbens former students, then consideration will be given to students coming from either Ottawa or Allegan counties. One scholarship of \$1,500 will be awarded annually.

Pauline Roskam Memorial Scholarship This scholarship was established by Mr. Donald Roskam in honor of the memory of his late wife, Pauline, who was a loving, compassionate mother and an inspiration to all who knew her. Candidates for this scholarship must be entering their junior or senior year at Calvin College, be pursuing a program in education, including special education, and planning to teach at the elementary or secondary level, have a cumulative grade point average at Calvin College of 3.30 or higher, and possess Christian character and concern for others as demonstrated by active involvement in volunteer activities in prior years. Financial need as defined for government programs is not required, but there should be evidence that the scholarship is needed to help meet educational expenses. Three scholarships of \$1,500 are awarded annually.

Schneider Education Scholarship Mr. Lee and Mrs. Catherine (Kay) Schneider have 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 34 years in Christian schools while Kay taught in public and Christian schools for many years. The scholarship is also estab-



teacher education program at Calvin College (2.50 on a 4.00 scale), be pursuing a program for teaching at the junior high or middle school level, possess Christian character and concern for others as demonstrated by active involvement in volunteer activities in prior years, and qualify on the basis of financial need. One scholarship of \$1,000 is awarded annually.

Betty Vredevoogd Memorial Scholarship Betty Vredevoogd graduated from Calvin College in 1941 with a degree in education. She followed that with 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. This scholarship is automatically renewable with a cumulative grade point average of 3.20 or higher.

John and Theresa Wierenga Family Scholarship This scholarship was established in memory of John and Theresa Wierenga who were faithful supporters of Christian education and of Calvin College. Recipients of this scholarship will be pursuing an education degree with the intention of teaching science after graduating from Calvin. One scholarship of \$1,200 was awarded for 2004-05.

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 a promising student 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 for this scholarship will be given to ethnic minority or international students, women and/or other than Christian Reformed Church members. Candidates will be

sophomores, juniors, or seniors pursuing a pre-architecture program. Two scholarship of \$1,500 were awarded in 2004-05.

James Bosscher Engineering Scholarship Former students and friends of Dr. Bosscher have generously funded a scholarship in his name. Scholarships are awarded to incoming freshman engineering students who demonstrate outstanding academic achievement and potential. The number of awards and the value of each award will be determined by the amount of money available each year. 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 3.00 grade point average. Special consideration will be given to North American ethnic minority students. To be considered for the Bosscher Scholarship, students need only apply for admission to the college by February 1. They must also indicate engineering as their primary interest.

Calvin Engineering Scholarship The Kamstra family established this scholarship in honor of the late Gordon Kamstra. Candidates should be entering the junior year as full-time students in the B.S.E. program in Engineering. A cumulative grade point average of 3.00 or higher is expected and a full year of prior study at Calvin is required.

Calvin Junior Engineering Scholarship Mrs. De Haan established a scholarship fund for the benefit of students in chemistry in memory of her late husband, Peter. Awards are based on Christian character, personality, possible financial need, and promise of growth. Candidates must be Chemistry majors entering the junior or senior year. One scholarship of \$2,200 was awarded for 2004-05.

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. The establishment of this scholarship is 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. One or more scholarships are awarded to pre-architecture or engineering students with a grade point average of 3.00 or higher and financial need who are entering their junior or senior year.

Brian L. DeWall Memorial Scholarship Mr. Gordon and Mrs. Joan DeWall of Fruitport, Michigan have established this scholarship in memory of their son Brian, who was tragically killed in an automobile accident during his senior year at Calvin. Scholarships are awarded to students who are entering the senior year in the Mechanical Engineering Program at Calvin; 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. A grade point average of 2.80 or higher is required.

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 one or more engineering students. Candidates need to be entering the junior or senior year, have a grade point average of 3.20 or higher and be pursuing a degree in engineering.

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 for the scholarship must be entering their junior or senior year, have a minimum grade point average of 2.5 or higher and be majoring in the Civil Engineering program. Preference will be given to a child of a missionary who meets the stated criteria; otherwise the scholarship will be given to an engineering student with some interest in using their education to support mission work. One scholarship of \$2,400 will be awarded annually. Apply through the Engineering Department.

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 the 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. Eligible students must be entering their junior or senior year of studies at Calvin with a major in chemistry, biochemistry, or chemical engineering, and must have a cumulative GPA of 3.30 or higher. Four scholarships of \$4,000 each were awarded for 2004-05.

Robert J. Reimink/Prein and Newhof Scholarship

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scholarship will be given annually to an English major who demonstrates academic excellence, commitment to the major, and potential for leadership within the major. 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. Candidates should be entering the junior or senior years and have a grade point average of 3.00 or higher. One scholarship of \$1,600 was awarded for 2004-05.

Kenneth and Lillian Kuiper Scholarship To honor the many years of service and commitment to Christian education that Dr. Kenneth Kuiper and his wife Lillian have given so generously, their family and friends established a scholarship in their name. Dr. Kuiper taught in the English Department at South Christian High School in Grand Rapids and then served with distinction in the English Department at Calvin for 37 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 annually to encourage students in the English Department who are pursuing a teaching career in junior/senior high school English. One \$2,700 scholarship was awarded for 2004-05.

Dr. Charlotte Otten Scholarship This scholarship reflects Dr. Charlotte E. Otten's interests in writing and research during her teaching years at Calvin. This scholarship is open to a junior or senior English major who shows promise as a writer of poetry, fiction, or non-fiction and is designed to encourage writers to consider a career in writing. This scholarship is also open to a junior or senior English major who is 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.

Schemper-Kamp Family Scholarship This scholarship is 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. The scholarship is awarded annually by the English Department to a returning junior or senior English major who has demonstrated academic excellence and a Christian perspective in his or her writing. One \$2,100 scholarship was awarded for 2004-05.

Henrietta Ten Harmsel English Scholarship Henrietta Ten Harmsel established this scholarship for promising English majors. Dr. Ten Harmsel served the English Department for 27 years, both as a beloved teacher and as departmental chair. She awards an English major because 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. Recipients of this scholarship must be enthusiastic readers and writers and must be able to explain how their Christian faith informs their study of literature. One scholarship of \$1,900 was awarded for 2004-05.

Richard R. and Kathleen J. Tiemersma Scholarship This scholarship has been established to promote and further 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 learturmsan4

average of 3.30 or higher. One scholarship of \$1,900 was awarded for 2004-05.

Steve J. and Viola Van Der Weele Scholarship The family of Steve Van Der Weele, who taught at Calvin from 1950 to 1986, has provided for two scholarships to be given annually to a returning junior or senior English major who shows evidence of coming to maturity through a liberal arts education and of enriching the Christian community through those studies. Academic excellence and Christian character are the primary criteria; need may be considered as a secondary criterion. The English Department will designate the recipient of the award. Two scholarships of \$1,500 each were awarded for 2004-05.

Henry and Mildred Zylstra Memorial Scholarship This scholarship was established by family and friends in honor of Henry Zylstra. Professor Zylstra had a formative influence both in his classes and through his scholarly essays on the Reformed Christian tradition and its critique of culture and literature. Some of these essays were published in his book, *Testament of Vision*. Mildred Zylstra also taught in the English department for many years. Selection for this scholarship is based on academic ability, commitment to pursuing success in graduate studies, and a concern for Reformed Christian liberal arts education. Candidates should be entering their senior year, have a GPA of 3.50 or higher, and be planning to attend graduate school to study literature or language within five years following graduation. For 2004-05, one scholarship of \$1,500 was awarded.

Geology Department

Jerrian (M.D.) and Anna (Terpstra) Van Dellen Geology Scholarship The Jerrian (M.D.) and Anna (Terpstra) Van Dellen Geology Scholarship is given by Kenneth J. and Pearl Van Dellen in honor of Ken's parents, who introduced him to the Creator and the creation. It is to be awarded to a student with junior or senior status in the college, with a declared major in geology or environmental geology at the time of holding the scholarship. Students will apply to the department during the spring of their sophomore or junior year for the following year. A student is eligible to hold the scholarship for two years. Student ap-

plications for the scholarship will be assessed by the departmental geologists on the basis of academic potential, leadership ability, Christian character, and financial need. Successful applicants will have a cumulative GPA of 3.0 or higher. (Ken [B.A., biology, Calvin 1958] began taking geology courses in 1962, and taught geology at Macomb Community College 1965-1999.)

Geology, Geography and Environmental Studies Department

Clarence Menninga Field Course Scholarship A scholarship fund established in honor of Calvin's first geology professor, Clarence Menninga, provides annually a \$650 scholarship to a student enrolling in a summer geology field course.

Germanic Languages Department

Wallace and Marianne Bratt German Interim Abroad Scholarship For nearly thirty 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 are available from the Department of Germanic 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

tent of majoring in History. Recipients will have demonstrated interest and accomplishments in history as manifested in their high school record and additional projects or independent study. One scholarship of \$1,500 was awarded for 2004-05. Apply through the History Department.

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 to junior history majors. Two \$2,000 scholarships were awarded for 2004-05.

Edwin J. and Elaine F. Van Kley Scholarship This scholarship was established by Elaine Van Kley, the widow of Ed Van Kley, former professor of history at Calvin. It was established 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. Candidates must be history majors planning to enroll full time and entering their junior or senior year, with proven financial need. They must have a minimum GPA of 3.2 or higher in their history courses, and have a proven interest and commitment to study, in order of preference: Asian influences in the West, Asia, or influences and relationships between the West and the wider world. One scholarship of \$1,500 will be awarded for 2004-05. Apply through the History Department.

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 must be entering the first-year at Calvin and be pursuing a degree in mathematics as their primary field of study. In addition, candidates 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. One scholarship of \$1,000 was awarded for 2004-05.

Sanford and Marjory Leestma Family Scholarship in Mathematics Professor Sanford Leestma retired from the Department of Mathematics and Statistics at Calvin College in 2003. This scholarship, established by his family, is intended to honor Professor Leestma's 35 years of service to Calvin College, the Mathematics Department, and its students. The Leestma family desires this scholarship to encourage and support outstanding students pursuing a career in Mathematics. The recipient should be enrolled full-time and be entering their junior or senior year. Selection is based on strong mathematical ability and evidence of involvement with the department. One scholarship of \$1,800 was awarded for 2004-2005.

Paul J. and Eleanor I. Zwier Family Scholarship These scholarships, which are funded by the Zwier family, by colleagues, and by alumni, are intended to celebrate the many delightful opportunities that Professor Zwier had in teaching mathematics to Calvin students during his long career at Calvin. Dr. and



Harold and Gladys Geerdes String Scholarship Contributions have been received for the establishment of a string award. Interest from this fund will provide an award to an outstanding string player entering the sophomore, junior or senior year at Calvin. The recipient should have attended Calvin at least one year, although consideration may also be given to outstanding first-year 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 schol-

bers of Pillar Christian Reformed Church in Holland, Michigan (formerly known as Ninth Street Christian Reformed Church). Second preference will be given to graduates of Holland Christian High School.

for which the scholarship is granted during the year in which the scholarship is used.

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.

Judith Vroon Vander Zee Music Education Scholarship In memory of Judith Vroon Vander Zee, her family and friends have 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 18-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. This scholarship is awarded to a music education major entering the sophomore, junior, or senior year. Candidates must have a grade point average of 3.00 or higher, financial need, and a strong Christian commitment.

Lloyd and Arlene Warners Keyboard Scholarship Scholarships are annually awarded to keyboardists who have a record of superior achievement in high school music activities. Applicants will be judged on the evidence of talent and musicianship. 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.

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. The scholarship seeks to recognize his many contributions to the Music Department in particular and to Calvin in general. In addition, this scholarship seeks to provide assistance to students pursuing a career in music. Candidates may be entering any year of study at Calvin, have a

minimum GPA of 2.50 or higher and be interested in the art of music making, either in performance, composition, musicology, or theory. Preference will be 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.

Ruth Ann Worst Memorial Music Scholarship Longtime music professor John Worst and his family have established this scholarship to honor Ruth Ann Worst, beloved wife, mother, and grandmother, for her love of music and her life of singing. Priority will be given to a sophomore, junior, or senior music major, or minor interested in music composition. Requirements include a minimum grade point average of 3.00 and enrollment in a music composition course for at least one semester during the year of the award.

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. The purpose of this scholarship is to strengthen Christian education in music and fine arts for worthy students. First preference will be given to a music major concentrating in piano performance, second preference to a music major not concentrating in piano performance but who takes two semester hours of private piano lessons per semester, and third preference to a non-music major who takes two semester hours of private piano lessons per semester. Financial need, exceptional promise, and leadership potential will also be considering factors.

John and Betty Zandee Organ Music Scholarship Contributions have been received by the Music Department in memory of John and Betty Zandee through the generosity of Mr. and Mrs. Everett Hassing of Kalamazoo, Michigan, longtime supporters of Calvin and its music department. Interest from this fund provides an annual award to an organ student entering the sophomore, junior, or senior year. Applicants will be judged by the following criteria: proficiency in performance, participation as a chapel organist or choir accompanist, a cumulative grade point

the gifts for and the desire to provide good bedside care. Two scholarships of \$1,950 each were awarded for 2004-05.

Victor VerMeulen Medical Scholarship Gifts have been received from Mrs. Mildred VerMeulen of Grand Rapids, Michigan to fund a scholarship in honor of her husband, Victor R. VerMeulen, Sr. Typically ten scholarships of \$1,800 are awarded to students entering the junior or senior year; five in the nursing program and five in the pre-medical program. Selection is based primarily on the student's academic record and potential for Christian service in medicine. Financial need is considered as a secondary factor. To apply for these scholarships, use the Upper-class Named Scholarship Application available through KnightVision in January.

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. It is their desire that these funds be used to assist deserving senior year students in the nursing program, particularly those with an interest in Gerontology and/or Intensive Care. Candidates must have a cumulative grade point average of 2.50 or higher. One scholarship of \$1,000 will be awarded annually.

Ruth Zylstra Memorial Scholarship Each year Calvin awards one scholarship of \$400 or more to a student in the nursing program who is entering the junior or senior year at Calvin. Selection is made on the basis of the student's academic record, potential, character, and financial need.

Off-Campus Programs

Kate Bytwerk Scholarship for Study Abroad This scholarship was established by the family of John De Bie, former professor of history at Calvin, in gratitude to God for John's career as a history teacher. He dreamed of being able to financially encourage individuals who plan to dedicate their

lives to teaching history. Candidates must be entering the junior year, be pursuing a career in education with a History major, and must have a grade point average of 2.75 or higher. One scholarship of \$1,200 was awarded in 2004-05. Apply through the History Department.

International Opportunities Scholarship Mr. Shane and Mrs. Melissa De Jong Schaap generously established a scholarship of \$3,000 for a student entering the junior or senior year at Calvin. The student must have a minimum 3.00 grade point average and be a participant in one of Calvin's semester abroad programs (Britain, China, Honduras, Hungary, France, or Spain). The recipient must also be pursuing a major in History, Political Science, Economics, or Communications and be planning a vocation on the international scene. 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 for this scholarship may be made through the Director of Off-Campus Programs.

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. Application for this scholarship may be made through the Director of Off-Campus Programs.

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was established to assist a student majoring in Political Science or who is in the Pre-law program. Special consideration will be given to students active in volunteer work and interested in a career of public service. Candidates should be entering the junior or senior year and have a grade point average of 3.00 or higher. The amount of the scholarship varies each year, depending on the availability of funds.

Dr. Bernard Zylstra, S.J.D., Memorial Scholarship Gerrit and Carol Zylstra have 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. The endowment funding will provide three scholarships of \$3000 each year to be applied to the junior or senior year. Applicants must have a minimum GPA of 3.00 and must submit a 1,200 word essay that reflects on some article by Ber-

Program. Applicants must be entering the junior or senior year and have a cumula-

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. Scholarships of \$1,400 or more each will be awarded annually to seniors who have been accepted into the Bachelor of Social Work program and who exhibit a commitment to Christian service.

Daniel C. Duyst Memorial Scholarship

This fund was established by the 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 37, in a rescue attempt by selflessly responding to another's need. 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. Applicants must be entering the junior or senior year, have a cumulative grade point average of 2.70 or higher, and be pursuing a Criminal Justice major. One scholarship of \$1,800 was awarded for 2004-05.

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 lov-

formed 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 should be entering the junior or senior year, have a grade point average of 3.30 or higher, and be in the process of pursuing a Spanish Education major. A short essay is required for this scholarship. One scholarship of \$1,700 was awarded in 2004-05.

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 Free Application for Federal Student Aid (FAFSA) 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 Scholarships 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 15 to receive maximum consideration. Later applications are considered if funds are available.

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. This adjustment applies to tuition and room and board charges and is awarded automatically to those who apply for need-based aid. Others who wish to receive the grant are required to file a separate application form. For 2004-05, the Exchange Grant is \$2,200 for all students.

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 is \$800 for 2004-05.

Knollcrest Need-Based Scholarships and Calvin 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. The program provides a minimum award of \$1,000 to first-year undergraduate students who demonstrate need, have a high school grade point average of 3.00 or higher or an ACT Composite score of 22 or higher, or combined SAT scores of 1000 or higher, and are not receiving the equivalent of an Honors or higher scholarship from the college. These minimum awards are renewable for one year for students who earn a cumulative grade citizens to assist with educational expenses.

period depending on the size of the loan and the repayment plan chosen.

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 \$4,050 per year (2004-05) to students whose parents' income is approximately \$40,000 or less. Since there are factors other than income considered in the evaluation, some with incomes above \$40,000 may qualify for the program, and others with lower incomes may not qualify. Only students in undergraduate programs are eligible.

Federal Perkins Loans This program, spon-

week summer internship in “an outstanding teaching congregation” and commit to mentor or lead in one of Calvin’s ministry-

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.

Other Student Awards

with a major in Chemistry and/or the senior with a major in Biochemistry. Criteria are outstanding achievement in academics and research in the department of Chemistry and Biochemistry, service to the department, and potential for excellence in Christian service.

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. The \$300 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 the senior with a major in Geography. The recipient is selected by the departmental faculty.

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 has 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.

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.

Harmon D. Hook Memorial Award in English An award of \$300 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.

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.

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.

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.

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.



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