

2004-2005 *Catalog*

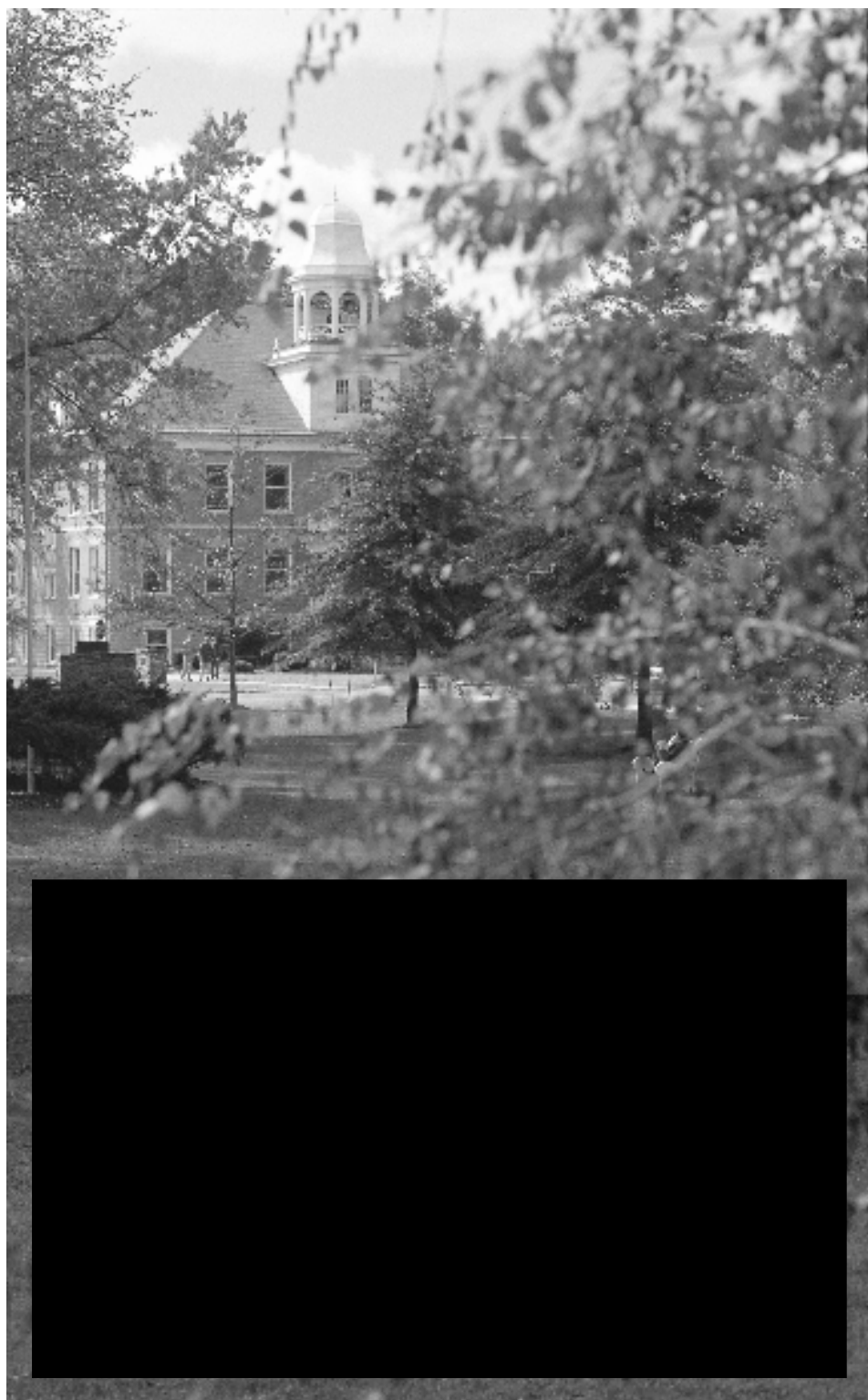


*Houghton College
provides an
academically
challenging Christ-
centered education
in the liberal arts
and sciences to
students from
diverse traditions
and economic
backgrounds and
equips them to lead
and labor as
scholar-servants in
a changing world.*

HOUGHTON COLLEGE

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**FALL
SEMESTER**

Aug 27, Friday
 Aug 28, Saturday
 Aug 31, Tues. (Mon. schedule)
 TBD
 Sep 5-10, Sun.-Fri.
 Sep 13, Monday
 Sep 14, Tuesday
 Sep 24-26, Fri.-Sun.
 Oct 1-2, Fri.-Sat.
 Oct 15-17, Fri.-Sun.
 Oct 18, Monday, 7:45 a.m.
 Oct 19, Tues., 11 a.m.
 Oct 20, Wednesday
 Oct 26-Nov 5, Tues.-Fri.
 Nov 9, Tuesday

 Nov 24-28, Wed-Sun
 Nov 29, Mon., 7:45 a.m.
 Dec 10, Fri.
 Dec 11-17, Sat.-Fri.
 Dec 17, Fri., 12:30 p.m.
 Dec 28, Tuesday, 11 a.m.

New students arrive
 New student orientation
 Classes begin
 Student teacher orientation and validation
 Christian Life Emphasis Week (tentative)
 Library Research sessions begin
 Last day to add full semester courses*
 Family Weekend
 Founders' Day/Homecoming
 October break
 Classes resume
 Midsemester grades due
 Second half semester courses begin*
 Course selection
 Last day to withdraw from a full semester course without an F*
 Thanksgiving recess
 Classes resume
 Last day of classes
 Reading day/Final exams (see exam schedule)
 Semester ends
 Final grades due

**SPRING
SEMESTER**

Jan 10, Monday, 7:45 a.m.
 Jan 16-21, Sun.-Fri.
 Jan 24, Monday
 Jan 24, Monday
 Feb 26-28, Sat.-Mon.
 Mar 1, Tuesday, 7:45 a.m.
 Mar 1, Tuesday
 Mar 1, Tuesday, 11 a.m.
 Mar 15, Tuesday
 Mar 24-Apr 7, Thurs.-Thurs.
 Apr 4, Monday

 Mar 25-Apr 3, Fri.-Sun.
 Apr 4, Monday, 7:45 a.m.
 Apr 26, Tues. (Fri. schedule
 except Tues. evening classes)
 Apr 27-May 3
 May 3, Tuesday, 3:30 p.m.
 May 4, Weds., 11 a.m.
 May 6, Fri., (tbd)
 May 7, Sat., (tbd)
 May 16, Mon., 11 a.m.

Classes begin
 Christian Life Emphasis Week (tentative)
 Last day to add full semester courses*
 Library Research sessions begin
 February break
 Classes resume
 Second half semester courses begin*
 Mid-semester grades due
 Mayterm course selection
 Course selection
 Last day to withdraw from a full semester course without an F*
 Easter vacation
 Classes resume
 Last day of classes

 Reading day/Final exams (see exam schedule)
 Semester ends
 Designated senior grades due
 Baccalaureate
 Commencement
 All final spring grades due

MAYTERM

May 10, Tuesday, 8:00 a.m.
 May 27, Friday
 Jun 3, Friday
 Jun 7, Tuesday, 11 a.m.

Classes begin
 Three-week courses end
 Four-week courses end
 Mayterm final grades due

***Due to the shorter time frame, those courses which are only one-half of a semester have different last days to add and withdraw. Check Master Schedule or Scoop sheet.**

FALL SEMESTER	Aug 26, Friday	New students arrive
	Aug 27, Saturday	New student orientation
	Aug 30, Tues. (Mon. schedule)	Classes begin
	TBD	Student teacher orientation and validation
	Sep 4-9, Sun.-Fri.	Christian Life Emphasis Week (tentative)
	Sep 12, Monday	Library Research sessions begin
	Sep 13, Tuesday	Last day to add full semester courses*
	Sep 23-24, Fri.-Sun.	Family Weekend
	Oct 7-8, Fri.-Sat.	Founders' Day/Homecoming
	Oct 14-16, Fri.-Sun.	October break
	Oct 17, Monday, 7:45 a.m.	Classes resume
	Oct 18, Tues., 11 a.m.	Midsemester grades due
	Oct 18, Tuesday	Second half semester courses begin*
	Oct 27-Nov 4, Thur.-Fri.	Course selection
	Nov 7, Monday	Last day to withdraw from a full semester course without an F*
	Nov 23-27, Wed-Sun	Thanksgiving recess
	Nov 28, Mon., 7:45 a.m.	Classes resume
	Dec 9, Fri.	Last day of classes
	Dec 12-16, Sat.-Fri.	Reading day/Final exams (see exam schedule)
	Dec 16, Fri., 12:30 p.m.	Semester ends
	Dec 27, Tuesday, 11 a.m.	Final grades due
SPRING SEMESTER	Jan 10, Tuesday, 7:45 a.m.	Classes begin
	Jan 15-20, Sun.-Fri.	Christian Life Emphasis Week (tentative)
	Jan 23, Monday	Library Research sessions begin
	Jan 24, Tuesday	Last day to add full semester courses*
	Feb 25-Mar 5, Sat.-Sun.	February break
	Mar 6, Monday, 7:45 a.m.	Classes resume
	Mar 7, Tuesday, 11 a.m.	Mid-semester grades due
	Mar 8, Wednesday	Second half semester courses begin*
	Mar 14, Tuesday	Mayterm course selection
	Mar 28-Apr 5, Tues.-Wed.	Course selection
	Apr 4, Tuesday	Last day to withdraw from a full semester course without an F*
	Apr 8-17, Sat.-Mon.	Easter vacation
	Apr 18, Tuesday, 7:45 a.m.	Classes resume
	May 3, Wednesday	Last day of classes/First Exam
	May 3-9, Wed.-Tues.	Reading day/Final exams (see exam schedule)
	May 9, Tuesday	Semester ends, 3:30 p.m.
	May 10, Wednesday, 11 a.m.	Designated senior grades due
	May 12, Fri., (tbd)	Baccalaureate
	May 13, Sat., (tbd)	Commencement
	May 22, Monday, 11 a.m.	All final spring grades due
MAYTERM	May 16, Tuesday, 8:00 a.m.	Classes begin
	June 2, Friday	Three-week courses end
	Jun 9, Friday	Four-week courses end
	Jun 13, Tuesday, 11 a.m.	Mayterm final grades due

***Due to the shorter time frame, those courses which are only one-half of a semester have different last days to add and withdraw. Check Master Schedule or Scoop sheet.**



General Information

Mission

Houghton College provides an academically challenging, Christ-centered education in the liberal arts and sciences to students from diverse traditions and economic backgrounds and equips them to lead and labor as scholar-servants in a changing world.

Philosophy

The philosophy of Houghton College, an educational institution of The Wesleyan Church, builds on the concept of preparing individuals to become Christian scholar-servants who exhibit the scholar's passionate yet humble commitment to the Christian faith and to their chosen academic discipline, and the servant's qualities of serving enthusiastically and unselfishly wherever called. The indispensable characteristics of the scholar-servant are the *competence* to serve and the *willingness* to serve.

To acquire the *competence to serve*, the scholar-servant must develop effective skills in listening, reading, written and spoken communication, computation, problem solving, logical reasoning, and value discrimination. In addition, the graduate's cumulative knowledge must provide a solid foundation for lifelong learning by a thorough grounding in one or more academic disciplines plus familiarity with fundamental concepts, principles, and methods of the basic fields of knowledge. Learning must also relate disciplines to each other and to life in ways that assist in making wise decisions and appreciating one's individual heritage while respecting cultural diversity and the integrity of creation.

To develop the *willingness to serve*, the scholar-servant must encounter positive models through life examples from Houghton's faculty and staff. Their reasoned faith must rest on sufficient knowledge of the Bible and its central doctrines to communicate Christianity effectively to others, and produce a world view that infuses Christian truth into knowledge and experience.

To achieve its ideals, Houghton College will sustain a scholarly community of believers who confess the Lordship of Jesus and who actively seek truth and recognize its foundation in Christ. Because of the risks involved in educating the intellect and the character, the faculty and staff will strive to provide a challenging and stimulating environment which is also nurturing and supportive. The community will also be characterized by the historic distinctives of The Wesleyan Church, including purity of heart and life, concern for justice in social issues, and unselfish stewardship of time and the material provisions of creation.

Doctrinal Statement

This statement of doctrinal views has been adopted by the board of trustees of Houghton College:

We believe that the Scriptures of the Old and New Testaments are fully inspired of God and inerrant in the original writings, and that they are of supreme and final authority for faith and practice.

We believe that there is one God, eternally existing in three persons: Father, Son, and Holy Spirit.

We believe that God created the entire universe including human beings by special operation of divine power.

We believe in the fall of Adam and Eve and the consequent sinful nature of all humanity which necessitates a divine atonement.

We believe in Jesus Christ as truly God and truly man, and in His virgin birth, His matchless teachings, His vicarious death, His bodily resurrection, and His promised second coming.

We believe in justification by grace through faith and in regeneration by the Holy Spirit, who makes the penitent believer a new creature in Christ and commences His lifelong sanctifying work.

We believe that the Christian may be filled with the Holy Spirit, or sanctified wholly, as a definite act of divine grace wrought in the heart of the believer to take full possession, cleanse, and equip for service on condition of total surrender and obedient faith.

We believe in the personal existence of Satan.

We believe in the bodily resurrection of the dead--of the saved to everlasting blessedness and of the lost to everlasting punishment.

Community Expectation

The college opposes practices and appearances which detract from one's Christian testimony. It forbids the use of tobacco, illegal drugs, and alcoholic beverages. Students are required to sign a statement of community expectations, committing themselves to abide by these and other standards of Christian conduct. The Student Guide gives a more complete statement of our policies and regulations.

Chapel attendance three times a week (Monday, Wednesday, and Friday) is required of all students. Church attendance, either at the Houghton Wesleyan or another local church, is strongly encouraged.

History

In 1883, the Lockport Conference of The Wesleyan Methodist Church of America founded Houghton Wesleyan Methodist Seminary. The school, established largely through the efforts of Willard J. Houghton, began with elementary and academic departments in 1884 and added a department for training of ministers in 1888.

In 1896, the school was placed under the management of the Wesleyan Educational Society. The first college-level courses were offered in 1889, and by 1909, advanced standing was allowed to college students transferring to degree-granting institutions. From 1909 to 1923, three years of college work were given.

A provisional charter as a four-year liberal arts college was granted to Houghton in 1923 by the Regents of the University of the State of New York, and the first four-year baccalaureate degrees were awarded in 1925. Houghton College received its permanent charter in 1927. In November 1935, the college was given full accreditation through admission to membership in the Middle States Association of Colleges and Secondary Schools.

James Seymour Luckey, college president from 1908 to 1937, provided the leadership and constructive planning that brought Houghton's emergence as a strong, properly equipped and completely accredited liberal arts college. Dr. Stephen W. Paine was president from 1937 until 1972. During these years student enrollment grew to approximately 1,200.

The leadership of Houghton College continued under the guidance of Wilber T. Dayton from 1972 until 1976. Dr. Daniel R. Chamberlain assumed the presidency of Houghton College in September 1976. Current enrollment is approximately 1,400.

College development has added several major buildings within the past few years, most recently the Center for the Arts. There have been significant improvements and changes to outdoor athletic facilities as well. Substantial increases in endowment have also been realized.

Founded and maintained by The Wesleyan Church, Houghton College recognizes its obligation to make a distinct contribution in the training of leaders and laity for service to that denomination.

Locations

Houghton College's main campus is in the hamlet of Houghton, Allegany County, in western New York, about 65 miles southeast of Buffalo and 70 miles southwest of Rochester. It is in the heart of the Genesee country, rich in historic Archaic, Lamoka, and Woodland native American cultures. The campus sits on the Allegheny Plateau at roughly the 1,300-foot level, on the site of the former Caneadea Indian Reservation of the early 1800s. Fifteen miles to the north are the Genesee's magnificent Portage Falls and Letchworth State Park. On all sides is the scenic beauty of the rolling hills and northern hardwood forests of western New York state. Allegany County, with extensive state forest land, abundant wildlife, and cross-country and downhill ski trails, is rapidly developing into a leading recreation area of western New York.

When the former Buffalo Bible Institute in West Seneca was merged with Houghton College in 1969, the West Seneca Campus was created. The programs on this campus have evolved from lower-divisional status to specialized courses and internships designed to complement majors offered on the main campus, particularly those requiring an urban setting. The West Seneca Campus is also the primary setting for Houghton's adult degree completion program in management, P.A.C.E.

Academic Standing and Regulations

Houghton College is fully accredited by the Regents of the University of the State of New York and by the Middle States Association of Colleges and Schools, with the most recent renewal of this status awarded in 1995.

The Greatbatch School of Music is a member of the National Association of Schools of Music, and the requirements for entrance and for graduation as set forth in this catalog are in accordance with the published regulations of the National Association of Schools of Music.

Houghton Graduates

In recent years over one-fourth of Houghton's graduates have entered full-time Christian service as ministers or missionaries. The rest have been divided among other professional fields (medicine, law, engineering, and others), business, and homemaking. A significant percentage of graduates go on to graduate school.

Placement Rates

The most recent placement survey was conducted with the Class of 2001. Fifty percent of the graduating class responded to the survey. Among the respondents 62.6 percent found employment in their field, 13 percent found part-time employment, and 43.4 percent were attending graduate school.

Christian College Consortium

Houghton College is a member of the Christian College Consortium, based in Concord, New Hampshire, which provides valuable cooperative programs. Consortium programs reinforce the unique purposes of Houghton College, and consortium members are committed to the tenets and spirit of evangelical Christian commitments in all areas of educational, faculty, administrative, and student activity.

Consortium activities increase learning opportunities for students by bringing special programs to campus and by creating the opportunity for selected sophomores or juniors to enroll with ease in special programs at other consortium colleges.

The other members of the consortium are: Asbury College, Wilmore, Kentucky; Bethel College, St. Paul, Minnesota; George Fox College, Newberg, Oregon; Gordon College, Wenham, Massachusetts; Greenville College, Greenville, Illinois; Malone College, Canton, Ohio; Messiah College, Grantham, Pennsylvania; Seattle Pacific University, Seattle, Washington; Taylor University, Upland, Indiana; Trinity International University, Deerfield, Illinois; Westmont College, Santa Barbara, California; and Wheaton College, Wheaton, Illinois. All are four-year liberal arts colleges with full regional accreditation.

Further information can be obtained by writing to the President, Christian College Consortium, 50 Stark Highway South, Dunbarton, NH 03045.

Council for Christian Colleges & Universities

Houghton College is also a member of the Council for Christian Colleges & Universities, an organization of 105 Christian colleges and universities. The Council's American Studies Program in Washington, D.C., offers students a wide range of study and internship opportunities, usually occupying one semester of the senior year. The Latin American Studies Program in Costa Rica provides an opportunity for cross-cultural study and an exposure to the problems of developing countries. The Los Angeles Film Studies Program engages students in the professional activities, cultural impact, and ethical issues of the contemporary film and television industry. Some details about these programs may be found in the special studies section of this catalog. Further information may be obtained by writing to the President, Council for Christian Colleges & Universities, 329 Eighth Street, N.W., Washington, DC 20002.

Western New York Consortium

The Educational Law and Trustees of New York State Resolution 73-58, dated February 28, 1973, enables state-operated campuses and community colleges to enter into a cross-registration procedure with other public and private colleges in the Western New York Consortium. The process permits full-time students to take and receive credits for courses at another participating college, without payments of tuition beyond the tuition already paid to the home institution (one three-hour course per semester).

Participating institutions are: Canisius College, Daemen College, D'Youville College, Erie Community College, Genesee Community College, Hilbert College, Houghton College, Jamestown Community College, Medaille College, Niagara County Community College, Niagara University, SUNY at Buffalo, SUNY College of Technology at Alfred, SUC at Buffalo, SUC at Fredonia, St. Bonaventure University, Trocaire College, and Villa Maria College. For further information, contact the academic records office.

Four-College Consortium

Houghton has established an ongoing consortium relationship with three other colleges serving the northern tip of Appalachia: St. Bonaventure University, Alfred University, and the SUNY College of Technology at Alfred. Details of cross-enrollment opportunities may be found through the Academic Records Office.

Army ROTC

Army Reserve officer training is available through cross-registration for course work at St. Bonaventure University near Olean. The academic courses are complemented with practical field experiences designed to enhance self-confidence, discipline, initiative, and responsibility. Houghton students in the program have done well in competition for scholarships, which cover full tuition and books, plus a modest living allowance. Up to eight hours of graduation credit may be earned through cross-registration in this program. For further information, contact the Academic Records Office.

Educational Rights and Privacy Act

This notice is to inform students of the Family Educational Rights and Privacy Act of 1974, as amended in 1988 and 1996. This Act, with which Houghton College intends to comply fully, was designed to protect the privacy of education records, to establish the right of students to inspect and review their education records, and to provide guidelines for the correction of inaccurate or misleading data through informal and formal hearings. In light of this federal regulation, Houghton College does not issue grades to parents. However, at the student's request (form available in the Academic Records Office) the grades can be released to parents.

Students also have the right to file complaints with the Family Educational Rights and Privacy Act Office (FERPA) concerning alleged failures by Houghton College to comply with the Act. In accordance with the provisions of the Act, students may request that Houghton College not disclose or print directory information and not disclose other information such as major(s), minor(s), Dean's list, other academic honors, and sports information such as height, weight, etc. Students wishing to prevent disclosure of directory information should complete the form available at the Academic Records Office by the end of the second week of classes. Local Houghton College policies concerning compliance with the provisions of the Act can be found in Houghton's Academic Records Office.

Crime Statistics Reporting

A New York state law (S.296-A LaValle [A. 7517 Canestrari]) requires colleges to include in their campus catalog, student handbook, and viewbook, the web address of the U.S. Department of Education's crime statistics. The web site contains campus crime statistics annually filed with the U.S. Department of Education as required under Title 20 of US Code Section 1092 (f). The web site is located at: <http://ope.ed.gov/security/>

Religious Observances

In compliance with New York's Hevesi-Levy Act, Houghton College will accommodate any of its matriculated students who are unable to register for classes, take an exam, or attend a class because of religious beliefs (taken to mean the doctrinal beliefs of religious organizations which qualify as tax-exempt corporations under federal law).



Admission

Only students who appear capable of success at Houghton are accepted for admission. To determine this possibility, the admission committee carefully studies each application. The final decision regarding admission is made only after review of all scholastic records, references and the completed application, including the essays related to Christian commitment.

Non-discrimination

Houghton College admits students of any race, color, or national and ethnic origin to all the rights, privileges, programs, and activities generally accorded or made available to students at the school. It does not discriminate on the basis of sex, race, color, national or ethnic origin, or handicap in administration of its educational policies, admission policies, scholarship and loan programs, and athletic or other school-administered programs. The college reserves its right to operate as a church-related institution and to develop policies consistent with the religious tenets of its sponsoring denomination, The Wesleyan Church.

Application Forms

Application forms are available from the Office of Admission, Houghton College, Houghton, NY 14744. E-mail: admission@houghton.edu, or phone 800-777-2556. An applicant desiring to major in music should request a special application which is to be filled out in addition to the regular forms. Address all correspondence to the Office of Admission. The application is also available online at www.houghton.edu.

Processing Dates

The Office of Admission responds to applications for admission on or about January 1 (for application files completed by November 15) and on a rolling basis thereafter. Notification for the rolling admission period begins on or about February 1 and continues into the summer as classroom and residence hall space allow. A student will be considered for admission after all parts of the application are received, including the signed completed application form, a Christian character recommendation, high school transcripts, an official statement of test scores, record of college classes (not including AP) taken while in high school, and the application fee. An accepted applicant is asked to confirm his or her intention to enroll by paying a nonrefundable enrollment deposit by May 1, thereby reserving a place in the entering class.

Applications for spring semester must be received by December 15 and all credentials must be on file by December 20.

Application

An application fee is normally charged on all applications. This is a service charge and is nonrefundable.

Class Size

The college seeks to enroll approximately 340 first-year students and 70 transfers each fall semester. Review of successful candidates is done in order of receipt of complete applications. Both first-year students and transfers may also apply for spring semester admission.

Recommended High School Courses

Houghton regards quality high school achievement as more important than the specific alignment of courses, but the following are beneficial in academic preparation for college:

English	4 years
Foreign language	at least 2 years
Mathematics	3 years
History or social science	at least 3 years
Science	at least 2 years

Entrance Examinations

Applicants must take the Scholastic Assessment Test (SAT I) of the College Entrance Examination Board or the Test Battery of the American College Testing Program (ACT) in their junior or senior year of high school. Achievement tests are not required.

The applicant is responsible for making all arrangements with CEEB or ACT authorities to take this test. Information regarding the Scholastic Aptitude Test may be obtained via www.collegeboard.com. ACT information may be found at www.act.org.

Dates for test administrations are available in your guidance office.

Houghton's institution code numbers are: 2299 for SAT; 2766 for ACT.

TOEFL

Students from non-English speaking countries must take the Test of English as a Foreign Language (TOEFL), administered by the Educational Testing Service, Princeton, NJ 08540 (or www.ets.org), and see that these scores are forwarded to the college. Students with paper-based TOEFL scores of 550 or higher or computer-based scores of 213 or higher may be offered admission providing all other factors are acceptable.

High School Equivalency

Under some circumstances, an applicant may be considered for admission on the basis of adequate scores on the New York State High School Equivalency examination or on the USAF high school equivalency test of General Education Development, High School level. In order to qualify for such consideration, he or she must earn an average standard score of at least 50 on all five tests, with no individual test score below 45. A student who has completed three years of high school may be accepted and then be eligible for a high school diploma from New York state upon successful completion of 24 semester hours at Houghton. Students who are considering leaving high school early should consult with the Houghton College admission and student financial services offices. In some situations, students who attend college full time before completing high school are not eligible for financial aid.

Limitation on Non-Classroom Credit

Not more than 32 hours of advanced placement (AP), CLEP, correspondence, distance education, or other non-classroom credit will transfer in to Houghton.

Advanced Placement Tests

Advanced course standing and/or college credit may be granted to students who pass the College Entrance Examination Board Advanced Placement (AP) Tests. These are given in May to students who have taken high school courses equivalent to first-year college courses. Credit will be contingent upon a favorable review by Houghton College faculty members. A score of 4 or 5 is required for credit.

Inquiry concerning these tests should be made to the high school guidance office or to Advanced Placement Program, College Entrance Examination Board, www.collegeboard.com.

CLEP

College-level examination program (CLEP) tests for advanced placement and/or credit may be taken at Houghton College at regularly scheduled testing dates. Information on these dates and on subjects available may be obtained from the director of assessment. Only subject examinations will be accepted from CLEP. Students may test for credit by CLEP at the beginning level of a foreign language provided the testing is done prior to the completion of the first semester of an intermediate course, and at the intermediate level provided the testing is done prior to the completion of the first advanced course. There is a \$50 fee for each CLEP test, plus a charge of 10 percent of the tuition for total semester hours in excess of 18. Information is available in the Student Academic Services office. Also see www.collegeboard.com for CLEP information.

Transfer Student Admission and Credit

Transfer students are welcome at Houghton with preference given to individuals who present a grade-point average of 3.0 or higher (4.0 scale). Transfer students (except local students) are expected to reside initially in college housing, to complete at least 30 hours at Houghton and to earn at least 50 percent of the major hours here. *Note: Only grades received at Houghton are used to figure the Houghton College grade point average; accepted hours earned elsewhere, however, will be posted to the Houghton transcript.*

Transfer credit rules:

- Transfer credits are accepted from institutions that are regionally accredited and listed by the U.S. Office of Education in its current Education Directory, Colleges and Universities.
- Up to 67 credit hours may be transferred for appropriate courses completed with a grade of C- or above from a two-year institution or AABC-accredited Bible college.
- The Director of Academic Assessment, by the appointment and authority of the Academic Dean and in consultation, as necessary, with relevant Department Chairs, will assess all transfer credits. Except as noted below, credit to meet Houghton requirements is granted on a course-by-course basis when it is reasonably clear that the course being transferred would, if taken at Houghton College, fulfill Houghton College requirements.
- **At least 62 credit hours must be taken at Houghton to be eligible for graduation honors** (*cum laude*, *magna*, or *summa cum laude*)

To apply for admission, a transfer student must submit an application, Christian character recommendation, official high school and college transcripts, and an application fee. SAT I or ACT scores are generally not required.

Transfer students entering in September are encouraged to be present for one of the new student welcome weekends held during the spring and summer prior to the fall semester.

Students with a Full Year of College Credit

For students who have at least a full year of successful college experience as demonstrated by at least 25 transferable semester credit hours earned *following high school graduation*, a course-by-course assessment will still be done. However, if the year was spent in normal pursuit of a baccalaureate degree in an accredited baccalaureate program, courses of a general education nature taken in a discipline will count for a Houghton Integrative Studies requirement in that discipline even if the equivalent course taken at Houghton College would not so count. (E.g., courses in World Literature or World Civilization would meet Houghton's requirements for Literature of the Western World, or Western Civilization.)

Junior Transfers from Baccalaureate Institutions

For students who have been enrolled in a baccalaureate program and have successfully completed 60 or more semester hours of transferable credits, special considerations apply in meeting Houghton's Integrative Studies requirements.

1. Students who have earned at least 40 transferable hours from a single baccalaureate institution may complete either Houghton's foreign language requirement or the foreign language requirement of the institution where the majority of transferable hours have been earned.

2. Students who have earned at least 45 transferable hours in at least seven of the following ten areas – Writing, Literature, Communication, Foreign Language, Social Science, Philosophy, Fine Arts, History, Math, and Science—need only take *Biblical Literature* and another Bible course or *Introduction to Christianity* to complete Houghton Integrative Studies requirements.

Students with an Associate Degree

Transfer students who have earned an associate in arts or associate in science degree from an accredited college may enter as juniors. Such students must take *Biblical Literature* and another Bible course or *Introduction to Christianity* to complete their Integrative Studies requirements. This policy does not apply to students who have attended Houghton previously; nor does it apply to students who have earned an associate in applied science degree. *Note: students entering with the A.A. or A.S. may, in some cases, need more than four semesters to complete the bachelor's degree.*

Houghton College has established formal articulation agreements with most New York State community colleges. These agreements allow graduates who meet certain criteria to transfer directly to Houghton with junior class standing. Two-year college transfers who are members of Phi Theta Kappa will receive additional scholarship support from Houghton College.

The college also has formal articulation agreements with Bethany Bible College in New Brunswick, Canada, and The Salvation Army School for Officers' Training in Suffern, N.Y. The formal agreement makes efficient credit transfer possible for students in selected majors who study at Bethany for one or two years. The Salvation Army agreement allows a student who intends to be commissioned as a Salvation Army officer to attend Houghton for three years and the School for Officers' Training for two years. Successful completion of coursework results in a degree from Houghton at the time of commissioning and ordination from The Salvation Army.

Re-admission

Students who have attended Houghton, left for any reason and wish to return must re-apply for admission and ensure that the college receives transcripts for any college work taken in the interim. Readmission is not automatic, but is based on the student's entire academic record and previous Houghton involvement.

Homeschoolers

Houghton College welcomes applications from homeschooled students. Approximately 80 current Houghton students came to the college from a homeschool background.

Houghton does not recommend any particular curricular program. Homeschoolers who submit work to a distance learning program (i.e. Christian Liberty Satellite Academy) should have that organization send a transcript. Otherwise, families should provide information regarding academic work and related activities for the 9-12th grade years. A reading list may also be submitted. The admission page of the Houghton College Web site (www.houghton.edu/admission) features a sample curricular template, and other useful information.

Homeschoolers should take the SAT or ACT exam. In addition, New York residents wishing to receive TAP (state grant) need to demonstrate the "Ability to Benefit" from higher education. Presently, the SAT and ACT are not acceptable ATB tests. A GED or high school diploma (from a school registered with the state of New York) are accepted, as are passing scores on one of several basic skills tests. See this link for test details: <http://www.ifap.ed.gov/fregisters/FR09042002.html>. The state of New York uses the USDE's approved list of ATB tests.

Homeschoolers who have taken college courses should have transcripts of that work sent.



Financial Information

This section contains the specific prices for the current academic year. Note: Modest changes may be expected for the next academic year.

Current Year

General

The *average annual college* charges are summarized below. Travel, personal expenses, textbooks and supplies are costs that vary and are not included in the fixed costs below. However, the Student Financial Services Office will provide an estimate of these expenses as part of the financial aid package.

Tuition	\$ 18,660
Room rent	\$ 3,160
Board	\$ 3,160
Total	\$ 24,980

The room rent used above is based on a double room in a traditional dormitory. The board rate is based on the 21-meals-per-week plan. Additional fees are charged in specific circumstances. See the following page.

Tuition rates

Tuition (flat rate: 12-18 hours per semester)	\$ 9,330.00
Tuition (per hour, 1-11 hours)	\$ 780.00
Tuition (per hour, for hours over 18)	\$ 435.00
Fee for auditing class (if not covered under flat rate)	\$ 50.00
Tutorial fee (per hour; add to tuition fee)	\$ 245.00
Tuition (per hour Mayterm overload and Summer Sessions)	\$ 435.00

Houghton Off-Campus Program rates (*these fees are in addition to tuition*)

Tanzania Program (includes room, board, fees, and airfare)	\$ 3,660
Houghton in London (includes room, board, and fees)	\$ 3,820
Honors Program (includes room, board, fees, and airfare)	\$ 3,500
Australia (includes room, board, fees, and airfare)	\$ 4,440
Star Lake (includes room, board, and fees)	\$ 3,160

Applied Music

In addition to the flat rate fee for tuition, students taking applied music are charged a special fee according to the following schedule:

Half-hour lesson (for 1-2 hours credit)	\$ 310
Hour lesson (for 3-4 hours credit)	\$ 620
Hour-and-a-half lesson (for 5-6 hours credit)	\$ 930

Housing: Room rates per semester are as follows:

College-owned housing	\$ 1,080
Dorm triple and West Seneca dorm doubles	\$ 1,380
Dorm doubles, dorm "suite" triples, West Seneca townhouse doubles, and West Seneca dorm singles	\$ 1,580
Townhouse doubles	\$ 1,680
Dorm singles (except East Hall), dorm double held as single, dorm triple held as double, townhouse single, and West Seneca townhouse single	\$ 2,280
East Hall Dorm single	\$1,930
Rooms through Community Living Option vary in cost depending on location and quality.	

Board rate: Following are the rates for the various meal plans:

21 Meals (per week) Plan (<i>per semester</i>)	\$ 1,580
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(21-meal plan is required for first-year students; sophomores, juniors and seniors in traditional dorms must be on 14- or 21-meal plan)

14 Meals (per week) Plan (<i>per semester</i>)	\$ 1,380
7 Meals (per week) Plan (<i>per semester</i>)	\$760

There are no board plans available at the West Seneca campus.

College fees

Application	\$ 40
Art studio lab fee	\$ 105
Enrollment deposit (<i>annual; credited toward tuition/room</i>)	
First-year students	\$ 300
Returning students	\$ 100
Highlander	\$ 435
Horsemanship I course fee	\$ 75
Horsemanship (<i>all other courses with labs</i>)	\$ 140
Independent study extra-late fee	TBD
Science laboratory fee (<i>per lab</i>)	\$ 105
Student teaching fee	\$ 225
Late registration fee	\$ 100
Sickness and accident coverage (<i>12 months</i>)	\$ 538
Transcript fee (<i>each copy</i>) while a student	\$ 5
Transcript fee (<i>each copy</i>) after leaving school	\$ 5
Vehicle registration/year, depending on parking location	\$25 - \$150

P.A.C.E., Program for Accelerating College Education (Adult Degree Completion)

All information regarding P.A.C.E. may be found in the Adult Learning Opportunities section of the catalog.

GENERAL

This section provides general information and explanation about the expenses (previously listed) which students will encounter during each academic year.

Housing

All students who do not commute from home are required to live in college-owned housing. Students who transfer to Houghton as juniors or seniors are required to live at least one semester in college-owned housing.

Junior and senior students have the opportunity to apply to live in a college-owned townhouse or outside college housing (and within the hamlet of Houghton) under the "community living option" (CLO). A limited number of townhouse and community living options are granted each year. The

housing type the student selects for the school year will continue for Mayterm, at additional charge, should the student attend Mayterm.

The college reserves the right, in case of institutional necessity, to reassign college-owned rooms, and it will in such instances reimburse the students involved for any financial loss sustained in such a move.

Students who live in dorms or community houses are financially liable for any damage to rooms or to furnishings. Some housing has a refundable damage deposit requirement.

Most campus and private rooms are planned for double occupancy and may not be rented for single occupancy unless it is clear that the space will not be needed.

Campus rooms are supplied with single beds and other basic furniture. Students must provide bed linen, pillows, blankets, bedspreads, and decorative articles.

Board

All students who do not commute from home are required to board in the college dining hall. All board is arranged on a contract basis with various plans available. All first-year students are required to be on the 21-meals-per-week plan. All sophomores, juniors and seniors may elect either the 14-meal or 21-meal plan regardless of where they live. Juniors or seniors living in housing with full cooking facilities and who have written verification from their landlords may elect a 7-, 14-, or 21-meal plan. The contract period begins on the day preceding student registration and does not include meals during vacation periods.

The board plan the student selects for the school year will continue for Mayterm at additional charge should the student attend Mayterm.

Mayterm

There is no additional tuition charge for up to four credit hours of Mayterm courses under the following conditions:

1. A full-time student at Houghton for the fall and spring semesters preceding Mayterm whose total registered (*or attempted**) hours for Mayterm or summer internship/practicum and the preceding two semesters do not exceed 36 credit hours.
2. A full-time student at Houghton for one of the two semesters preceding Mayterm whose total registered (*or attempted**) hours for Mayterm or summer internship/practicum and the preceding two semesters do not exceed 18 hours.

***Attempted hours include any hours from which a student withdraws and receives a grade of W for the course.** Courses from which a student withdraws after the add period remain on the transcript as attempted hours and a grade of W is recorded. Therefore, these "withdrawn" hours continue to be counted as attempted hours and should be included in any calculations toward the 36 or 18 total when endeavoring to determine whether a student has exceeded the limit. These are not considered "dropped" hours—they are "withdrawn" hours.

Courses which are dropped during the add period (first two weeks for a full-semester course, or first week of a half-semester course) do not appear on the transcript. They are not counted as attempted hours. A full copy of this policy may be obtained from Student Financial Services.

Students whose Mayterm or summer internship/practicum course causes them to exceed the maximum hours allowed will be charged the regular Mayterm rate per hour for each hour beyond the limit.

Student Fees

General information of student fees appears below.

Application fee is nonrefundable and is payable at the time of applying for admission to the college.

Enrollment deposit, required annually of all students, reserves the student's position in the fall registration list. Due by May 1 for all new students and by the room drawing date for all returning students, the deposit is **not refundable** but is credited toward tuition.

Health and Accident insurance coverage is mandatory. Students without health insurance coverage will be enrolled in and billed for the illness/accident college plan. The college accident insurance is mandatory for all intercollegiate athletes and is an option for all other students. The student's personal or family insurance is primary; college plans are always secondary. Claim forms and assistance in filing claims are provided by health service personnel.

Laboratory—charged for certain courses which involve additional expenditures for equipment, supplies, and supervision.

Late registration—assessed to each student who fails to complete the full registration process, including payment in full for the account balance (less financial aid and amounts budgeted through Academic Management Services, Inc.) two weeks prior to the start of registration week.

Special test—charged any student who receives such a service.

Transcript—charged for each copy of a transcript of record and must be paid before a transcript can be issued.

Vehicle registration and parking - all student vehicles must display a current registration sticker. Costs vary depending on desired parking location.

Laptop Computer

A laptop computer is issued to all newly entering full-time students. The student will be allowed to use the computer while enrolled full time, and ownership of the computer will be transferred to the student upon graduation from Houghton with a four-year degree and full payment of all outstanding balances. Before the student is issued the computer, the student will be required to sign a usage agreement which gives further details of the program.

Payments

Semester charges are due two weeks prior to the start of the semester. Timely payments will reduce time spent being deregistered from classes and incurring a late registration fee. Checks should be made payable to Houghton College and should be sent to the Student Financial Services Office along with the payment agreement.

A **monthly payment plan** is available through Academic Management Services, Inc. that allows fixed payments of annual college expenses over a 10, 9, or 8-month period, with the initial payment due June 15. The plan also guarantees payment of the current year's account in the event of the death of the enrolling parent. Complete information about the plan is available from the Student Financial Services Office upon request.

Off-campus Study

Houghton College students who are enrolled in an approved off-campus study program which is administered by a non-Houghton organization, must pay to Houghton the tuition charged by the off-campus program plus any applicable general or special fees instead of the Houghton College tuition rate. (Examples: American Studies Program, Robert Packer Hospital medical technology program, Christian College Consortium visitor program, or language studies abroad.) Financial aid awarded from Houghton cannot be applied against the cost of such a program.

Financial Delinquency

Any student failing to pay his or her college account when it is due may be excluded from all classes, lectures, laboratories, examinations, dormitories, meals in the dining hall, co-curricular activities, and graduation until such payment or satisfactory arrangement is made. The student may also be denied grades, transcripts, diplomas, and the opportunity to enroll for subsequent semesters if payment is not made when due. A 1.5 percent per month finance charge is applied to all account balances remaining after the student's enrollment ends. If it becomes necessary to engage the services of a collection agency or attorney to effect collection or settle any dispute in connection with the terms, the student is subject to pay any and all costs as are thereby incurred.

Title IV Refunds

Houghton College's refund policy is in accordance with the U.S. Department of Education's regulations. The policy applies to all students who do not complete the enrollment period for which they have been charged.

The term "Title IV Funds" refers to the Federal financial aid programs authorized under the Higher Education Act of 1965 (as amended) and includes the following programs: Federal Family Education Loan Programs (Stafford and PLUS), Federal Perkins loans, Federal Pell Grants, and Federal SEOG.

A student's withdrawal date is the date the student began the institution's withdrawal process or officially notified the institution of intent to withdraw; or the student's last date of attendance at a documented academically-related activity; or the midpoint of the period for a student who leaves without notifying the institution.

Refunds on all charges, including tuition, room and board, and special fees, will be prorated on a per diem basis based on the academic calendar up to the 60 percent point in the semester. There are no refunds after that time. Students withdrawing before the classes begin for a given term will receive a 100 percent refund of charges. A copy of the worksheet used for the refund calculation can be requested from the Student Financial Services Office.

Title IV aid and all other aid is earned in a prorated manner on a per diem basis based on the academic calendar up to the 60 percent point in the semester. Title IV aid and all other aid is viewed as 100 percent earned after that point in time. A copy of the worksheet used for the Title IV refund calculation can be requested from the Student Financial Services Office.

Students who are granted a medical withdrawal receive a refund of charges prorated on a per diem basis up to the 100% point in the semester. The Office of Student Life must approve a medical withdrawal. Students who are granted a leave of absence are treated in the same manner as students who withdraw from the college.

In accordance with federal regulations, when financial aid is involved, refunds are allocated in the following order: unsubsidized Stafford loans, subsidized Stafford loans, Federal Perkins loans, Federal PLUS loans, Federal Pell Grants, Federal SEOG, other Title IV assistance, other Federal sources of aid, other state, private and institutional aid, and finally, the student.

The fees, procedures, and policies listed above supersede those published previously and are subject to change at any time.

Financial Aid (Student Financial Services)

Our goal is to assist families through the financial aid process and to help them identify sources of aid so that a Houghton education is affordable. All students are urged to consult with the aid counselors about particular situations regarding funding. This is especially true for students considering participation in consortium or study-abroad programs.

FAFSA

Any student who wishes to be considered for aid funds administered by Houghton College must submit annually a copy of the FAFSA listing Houghton College (code number: 002734) as a recipient. The FAFSA is mailed to prospective students in December or is available in the Student Financial Services Office after January 1. Priority consideration is given to students whose applications are received by March 1st. **Houghton College aid may not be renewed to those applying for it after July 1st.**

All grants, scholarships, and Federal Perkins loans are credited to the student's account by the Bursar's Office each semester. Federal college work-study earnings are paid by check or direct deposit if requested, to the student on a bi-weekly basis. FFELP loan proceeds may be received by check or by electronic funds transfer (EFT). Checks are made co-payable to Houghton College and the student or parent. Once endorsed, the FFELP checks are credited to the student's account. Any credit created by the loan proceeds will be disbursed to the student or parent by request.

Requirements for Financial Aid Consideration

A student must be a matriculated student making satisfactory progress to receive financial aid. A **matriculated student** is one who has met the entrance requirements and is pursuing a program of study toward a degree. A student is considered to **be making satisfactory academic progress if he or she is meeting the requirements listed in the Academic Information section**, although s/he may be on "academic guidance" or "academic probation" as described in the section on academic information.

TITLE IV STUDENT ASSISTANCE PROGRAMS

Federal College Work-Study

The Federal College Work-Study Program is designed to make work opportunities available to college students. It is a federally-funded aid program, available to matriculated students. Priority will be given to students in full-time attendance. A portion of the federal work-study funds will be used to employ students in community service jobs. A work-study student may qualify to work up to 12 hours a week during the academic year, although academic considerations may limit work to six hours per week.

Approval of all job assignments is made by the SFSO, but hiring is done by the agency or department which will employ the students.

Federal Pell Grant

The Federal Pell Grant is an entitlement to students who qualify under a federal formula which determines eligibility. To be eligible, a student must be a U.S. citizen or permanent resident and have

not earned a bachelor's degree. This award is a grant, not a loan. For the 2004-05 academic year, the estimated maximum Pell Grant is \$4,050.

Federal SEOG

The Federal Supplemental Educational Opportunity Grant is a federally-funded grant program administered by Houghton. FSEOG grants are awarded first to Pell grant recipients with low estimated family contributions. FSEOG recipients must have demonstrated financial need. FSEOG is available to full-time or half-time students. This award is a grant, not a loan. The average FSEOG award is \$625.

Federal Perkins Loan

The Federal Perkins Loan is a federally-funded program which provides loan funds for students to help meet their educational expenses. The program is administered by Houghton College, and recipients are selected on the basis of financial need. Recipients must be at least half-time students. The loans are interest- and payment-free until nine months after a student graduates or ceases attendance at the college. The annual maximum Perkins Loan borrowing limit this year ('04-'05) is \$3,000.

Federal Stafford Loan and PLUS

There are two loan programs administered on campus which are of significant value to students and their families. The first is the Federal Stafford Loan. Annual borrowing limit is \$2,625 for freshmen, \$3,500 for sophomores, and \$5,500 for juniors and seniors (based on conditional classification). Repayment is delayed until six months after cessation of enrollment as a half-time student. Interest rate for new borrowers is determined by the 91-day Treasury Bill, plus 1.7 percent with a cap of 8.25 percent. (Latest rate is 3.42 percent.)

The other loan is the Federal Parental Loan for Undergraduate Students (FPLUS), at a variable interest rate based on the 91-day Treasury Bill rate plus 2.3 percent with a cap of 9 percent. (Latest rate is 4.22 percent.) Parents may borrow up to the cost of attendance minus any other financial aid. For more information please consult your lender.

Federal Unsubsidized Stafford Loan

Students not eligible for the maximum annual Stafford loan limit may borrow an unsubsidized Stafford loan at the same interest rate. However, the student is responsible for interest payments while in school. Principal repayment still begins six months after cessation of enrollment as at least a half-time student.

An additional unsubsidized Stafford loan is available to students who qualify for aid as an independent student. Freshmen and sophomores may borrow \$4,000 per year and juniors and seniors may borrow \$5,000 per year.

Note: all Federal Education Loan Programs are subject to an origination and insurance fee of approximately 3.0 percent.

Rights and responsibilities of recipients of any of the Title IV federally-funded programs (FCWSP, FSEOG, PELL, Stafford loans, Federal Perkins loan):

- *The student must report all funds received from outside agencies.

- *The student must continue to make satisfactory academic progress.

- *The student must not owe any refunds on Pell Grants or other awards paid, or be in default on repayment of any student loan.

- *The student must also sign an affidavit that all moneys received will be used only for the cost of attendance.

- *The student must be in compliance with Selective Service regulations.

CitiAssist Student Loans

The CitiAssist Student loan is a private alternative educational loan through CitiBank Student Loan Corporation. The loan is in the student's name but a co-signer is required. Students are eligible to apply for a maximum loan of the cost of attendance minus financial aid. The current interest rate for Houghton student borrowers is prime plus .325. Applications may be obtained from the Student Financial Services Office. Loan approval is based on certification by the SFSO and a worthy credit history for the student and co-signer.

New York State Tuition Assistance Program

New York State's Tuition Assistance Program (TAP) is a state-funded program for New York state residents. A recipient of this award must be a full-time matriculated student in an approved program at an approved New York state post-secondary institution, and must maintain satisfactory

academic progress, as defined in the first eight academic semesters, as shown in the chart for satisfactory academic progress (below). Grants are based on the New York net taxable income of the preceding year. This program is an entitlement program. There is neither a qualifying examination nor a limited number of awards. To apply, students must complete a FAFSA and a separate TAP application. For the 2003-04 academic year, the estimated maximum TAP award for first-year students is \$5,000. Educational Ministries students are ineligible for TAP unless they have declared a double major.

Satisfactory Academic Progress

According to financial aid regulations, students must make satisfactory progress toward a degree in order to remain eligible to receive financial aid. Satisfactory academic progress includes both a qualitative (grade point average) and quantitative (number of credit hours completed) measure of the student’s progress.

The Student Financial Services Office will assess the student’s progress at the end of every semester for the New York State Tuition Assistance Program (TAP) and once a year (after Mayterm) for all federal and institutional aid programs. However, while these are the guidelines for “satisfactory academic progress” for financial aid purposes, meeting this guideline *only* will not ensure a student’s graduation from Houghton in four, or even five, years. See “Classification” in Academic Information section for further information.

Semesters	Min. credit hrs. enrolled	Credit hrs. that must be completed	Min. accrued credit hrs.	Cum. grade point average
1	12	6	6	1.0
2	12	6	15	1.5
3	12	9	27	1.75
4	12	9	39	2.0
5	12	12	51	2.0
6	12	12	63	2.0
7	12	12	78	2.0
8	12	12	93	2.0
9	12	12	108	2.0
10	12	12	125	2.0

When a student transfers to Houghton from another institution, the director of assessment will determine the number of credit hours acceptable toward a degree at Houghton College. The financial aid office will place the student at the appropriate point on the satisfactory academic progress chart according to the number of credit hours transferred or the number of semesters completed, whichever is most beneficial to the student.

Students who fail to meet the satisfactory academic progress requirements will lose eligibility for financial aid. Students may petition the Committee on Satisfactory Academic Progress to request a onetime waiver of the necessary academic requirements. Petitions will be considered based on physical injury or illness, extraordinary personal difficulty, or other special circumstances.

HOUGHTON COLLEGE SCHOLARSHIPS

Houghton Excellence Scholarships

Excellence Scholarships are awarded to outstanding high school graduates who are accepted for admission to Houghton College and who exhibit one or more of these characteristics: scholastic achievement, academic potential, co-curricular involvement, or other leadership qualities.

To be considered for a Houghton College Excellence Scholarship, a student must have combined SAT scores of 1200 or more (or ACT of 26) OR have graduated in the top 15 percent of his or her high school class. These scholarships are renewed annually providing the student maintains at least a 3.0 GPA at the end of each year. Recipients receive awards ranging from \$1,250 to \$7,500 for four years. Full-time attendance is required.

One of the Excellence Scholarships is given in memory of the six students - Beth Andes, Joy Ellis, Cynthia Rudes, Mark B. Anderson, Alan Bushart, and Albert Rapp - who died in an automobile crash on October 2, 1981. These members of the Class of 1982 were highly respected campus leaders who embodied the personal qualities which recipients of Excellence Scholarships should possess.



Houghton Heritage Scholarships

The Scholarship Committee selects the three top incoming students each year for Houghton Heritage Scholarships. To be considered, a student must have a strong pastor's recommendation, combined SAT scores of 1,300 or higher (or an ACT of 29 or higher) and rank in the top 10 percent of their high school class (or equivalent). Those eligible are invited to apply for the scholarships after acceptance, and must complete an essay, submit a sample of their best academic writing from a high school class, and complete a scholarship application. The Scholarship Committee then selects students from the applicant pool to invite to campus for competitive interviews. Three \$12,500 awards are given each year, renewable annually with a GPA of at least 3.25.

Houghton Neighborhood Scholarship

New students entering in the fall of 1999 and beyond, who are graduates of a high school in Allegany County or a neighboring school district (Keshequa, Letchworth, and Pioneer) and have attended that high school for at least two years, are eligible for the Neighbor Scholarship. Students who are members of the National Honor Society receive a \$5,000 per year renewable scholarship (for up to four years) dependent on maintaining a minimum 3.0 grade-point average. Students who transfer into Houghton, but who graduated from one of the eligible schools, are eligible for the scholarship that would have applied upon graduation from high school.

Houghton Merit Scholarship

Students who receive distinction as a *finalist* in either the National Merit Scholarship Program, the National Achievement Scholarship Program, or the National Hispanic Recognition Program will receive a Houghton College Merit Scholarship in the amount of \$2,000 per year. This scholarship can be held in addition to an Excellence Scholarship, and is renewable provided a student maintains a 3.25 GPA.

Phi Theta Kappa Scholarship

Transfer students who are members of Phi Theta Kappa will receive a Phi Theta Kappa Scholarship in the amount of \$2,000 per year. This award may be held in conjunction with an Excellence Scholarship and is renewable provided a 3.0 GPA is maintained.

Canadian Student Grant

All new Canadian students will receive a \$3,500 scholarship. The student must be a matriculated, full-time student who is a Canadian citizen and whose residence is in Canada.

Houghton College Matching Scholarship

The Houghton College Matching Scholarship program creates the possibility of an exciting partnership between the local church and Houghton College. Participating churches will continue an active ministry in the lives of their young people. Further, they will be encouraging these students to attend a Christian college with a national reputation for academic excellence. This program also provides an opportunity for members to support the ongoing spiritual growth of worthy students.

Houghton College matches (up to \$750 per student, per year) a scholarship awarded by the student's church or Dollars for Scholars Scholarships. Thus, a \$750 gift from a church can become \$1,500 towards the student's cost at Houghton. A student may receive a scholarship from his/her church that is larger than \$750, although Houghton College will only match up to \$750.

The church must submit an award form stating the amount of the scholarship. This form must be submitted by July 1st to ensure a matching scholarship for the following academic year. Church funds must be received in the Student Financial Services Office by December 31. Money used for the scholarship must be from sources which are "detached and of disinterested generosity" (i.e., not family). Please contact the financial aid office for further information.

Performance Scholarships

Performance Scholarships are awarded to students for displaying exceptional talent in fine arts or athletics. Art and music faculty and athletic coaches may nominate candidates to the Student Financial Services Office. The awards range from \$500 to \$9,000 per year. Scholarships are offered in the following programs: music, art, men's and women's basketball, men's and women's soccer, men's and women's track and cross country, women's volleyball and field hockey. Awards are renewed annually if satisfactory participation in the area of performance and a minimum 2.0 cumulative grade point average is maintained.

International Student Scholarship

International students may apply for assistance from the International Student Scholarship program. Awards range from \$1000 to \$2000 per year.

Eligibility for this program will be determined by the Scholarship Committee through:

1. The international student's application for assistance.
2. The student's admission data.
3. A statement on how college bills will be paid.

Renewal of the award beyond the freshman year will require:

1. Adequate academic achievement.
2. Recommendation by dean of student life.
3. Recommendation of director of academic records.

For this program, an international student is defined as a student who is a citizen of a country other than the USA or Canada, and who has not established permanent residence within the United States.

Houghton College Grants

Houghton College provides limited financial assistance to certain students with demonstrated financial need. Application for these programs must be made in advance of registration, through the FAFSA. *The first five are grants and scholarships specifically awarded to full or associate Wesleyan church members who regularly attend a Wesleyan church. Wesleyan students will also be considered for all other types of financial aid.*

Wesleyan Grants

New students entering in the 2003-04 academic year will receive a grant of \$1,000 awarded annually to full or associate members of a Wesleyan church. This award may not be held concurrently with the Parental Christian Service Grant.

Wesleyan District Scholarship

Each district of The Wesleyan Church may designate one new student per year to receive a scholarship of \$2,500.

Wesleyan TNT/WBB Scholarships

Houghton College will honor any scholarships to winners of the Wesleyan Teens n' Talent and Wesleyan Bible Bowl competitions. Recipients may redeem one quarter of their total scholarship awards per year.

Wesleyan MK Grant

A grant of \$5,000 per year is awarded to students who have parents serving with Wesleyan World Missions.

Willard J. Houghton Ministerial Scholarships

A grant of \$5,000 per year is awarded to students who are preparing for the Wesleyan pastorate.

Parental Christian Service Grant

Students whose parents are ordained or licensed ministers or missionaries and are employed full-time in Christian service under the direction of a conference or a mission board may, upon application be assisted by a grant of \$1,500. Awards are based on the family's demonstrated financial need as determined from a completed FAFSA. Dependents of Wesleyans will receive \$2,000 per year. (Married students are **not** considered dependents and are ineligible for this grant.) This grant **may not** be held concurrently with the Wesleyan Grant.

Three-in-Family Grant

Where three or more members of a single family unit (to include father, mother, brothers, or sisters) attend Houghton full time during the same year, each will be eligible for a \$2,000 grant. This grant may be held concurrently with all other Houghton study grants.

Alumni Association Scholarship

Houghton College alumni children and/or grandchildren entering Houghton may receive a renewable \$1,000 scholarship. The Alumni Association board of directors will select 20 recipients annually. Selection will be based on both merit and demonstrated financial need.

Houghton College Endowed Scholarships

Generous friends of Houghton have funded a number of scholarships, which are awarded according to the wishes of the donors. These scholarships are primarily for returning, full-time students. Recipients are selected on the bases of academic achievement at Houghton and financial need. Specific information about the endowed scholarships may be obtained from the Student Financial Services Office. Applicants for any of these scholarships must submit a FAFSA and a Houghton College Financial Aid Application by March 1 for priority consideration.

Area-of-Residence Scholarships

Arlin Scholarship (Central New York)
Howard and Helen Barney (Whitesville)
Bliss Scholarship (Bolivar, then Wellsville)
Byrd and Eva K. Bohannon (Ontario, Canada)
Canadian Foundation
Crowder Capital District Scholarship
Dayton Champlain District Scholarship
Chester and Marjean Dayton Scholarship (Champlain District)
Finger Lakes Alumni Chapter Scholarship
Rose and Genevieve Galuteria Scholarship (Hawaiian or international)
Gibby Scholarship (Arcade)
Frieda and Mildred Gillette Scholarship (international student)
Haskinsville Scholarship
Clarence W. Hillman Memorial Scholarship (Pioneer High School)
Ingham Scholarship (Hume and Allegany County)
Joseph A. Kemp Scholarship (Pioneer High School)
Gladys Moll (Wayne County)
Orlando Alumni Chapter Scholarship
William and Hildred Presley Scholarship (North Country of NYS)
Robinson Scholarship (West Chazy)
Royce Scholarship (Richburg and Bolivar)
RVG Scholarship (Mineral County, W. Va., and surrounding counties)
Schiele Scholarship (Cuba)
Simons Memorial Scholarship (Nunda)
Walchi Family Scholarship (Bolivar, then Wellsville)
Walchi Scholarship (Bolivar, then Wellsville)
Wetherbee International Scholarship

Christian Service Scholarships

Anderson Memorial Scholarship
McCamman-Nussey Scholarship
Messersmith Christian Service Scholarship
Moses Memorial Scholarship
Strock Scholarship
United Wesleyan College Christian Service

Ministry or Missions Scholarships

William and Marjorie Calkins Scholarship
Ray and Marianne Chamberlain Scholarship
Fish Scholarship
Gunsalus-UWC Ministerial Scholarship
Bert Hall Ministerial Scholarship
Daniel Heinz Ministerial Scholarship
James H. and Elizabeth Hogg Scholarship
Howard and Iva Jacox Scholarship
Lee Christian Service Loan/Grant
Lockwood Memorial Scholarship
Palmer Scholarship
Joy Palmer Missionary Scholarship
Paul Reeves Scholarship
Claude Ries Scholarship

Carlyle and Scott Smith Scholarship
Cora Esther Sparks Memorial Scholarship
James E. Spear Memorial Scholarship
Wesleyan Missionary Kid Scholarship
Earle L. Wilson Scholarship
Ziegler-Bronner Scholarship

Music Scholarships

Wilfred Bain Scholarship
Joanne L. Bingham Senior Music Scholarship
Carolyn Keil Campbell Scholarship (Music)
Clint A. Clifford Scholarship
Frederick C. Denham Organ Scholarship
F.B. Dodds Scholarship
Charles Finney Scholarship (Organ or Church Music)
S. Hugh and Wilfreda Paine Scholarship
Presser Foundation Music Scholarship
Paul and Mildred Temple Scholarship
Dorothy Yahn Walrath Organ Scholarship
Linford C. Wilcox Memorial Scholarship
Robert W. Woods Memorial Scholarship
Marilyn York Scholarship

Scholarships for Demonstrated Financial Need

George I. Alden Trust
Laurel Davies Alexander Scholarship
Barnes-Eldrod Scholarship
Benson Scholarship
The Rev. P. Arthur Brindisi Scholarship
Fred J. Brotherton Charitable Foundation Scholarship
Buffalo Endowed Scholarship
Calvary Church Scholarship
Conway Scholarship
Howard A. and Helen C. Crosby Scholarship
Thomas Danks Scholarship
Davis Scholarship
Deerfoot Lodge Scholarship
Dominguez Scholarship
Education Assistance Limited
Emerson Scholarship
Rachel Davison Fee Scholarship
Folger Family Scholarship
Gardner Scholarship
Gibbins Scholarship
Everett Graffam Scholarship
Alice Houghton Scholarship
Howes Trust Scholarship
James Harrington Hurd Scholarship
Samuel Howes Scholarship
Kalla Memorial Scholarship
Kalle-Herbst Scholarship
Koonce Scholarship
Carl Lambein Scholarship
Luke and Pearl Lindley Scholarship
Paul Maxwell Scholarship
Richard W. McCann Scholarship
McKee Scholarship
Paul V. Miller Scholarship
E.A. Moos Foundation
Richard and Evelyn Naughton Scholarship

Parker Scholarship
Dr. and Mrs. Gustave Prinsell Scholarship
Rapp Scholarship
Rev. Bertrand E. Rudd Scholarship
Shisler Scholarship
Howard F. and Guendolen S. Smith Scholarship
Snowberger Scholarship
Ethlyn Stebbins Foundation
Layton and Olive Vogel Scholarship
Wight Memorial Scholarship

Special Category Scholarships

John M. Andrews III Scholarship: physics
Benninger Scholarship: pre-med
Dorah Burnell Scholarship: chemistry
Calhoon Speech Scholarship
Chastain Scholarship: minority or disabled
James A. Comstock Memorial Scholarship: pre-engineering
Arnold Cook Business Scholarship
Hazel I. Crocker Scholarship: mathematics
Daniel Cutter Literature Scholarship
Gordon Ferm Presbyterian Scholarship
Gallagher Family: Salvation Army Scholarship
Dr. & Mrs. DeVere Gallup Scholarship: music and science
Ruth Orthlip Gibson Memorial Foundation
Hazlett Scholarship
Joan C.V.G. Holman Scholarship: education
Jensen Scholarship: business administration
Winston Johnson Scholarship: sociology
Lake and Amanda Harner Scholarship: pre-law
Lazares Lazarides Business Scholarship
Edna Lennox: communication
Liberal Arts Scholarship
Kenneth L. May Memorial Scholarship: soccer
Raymond and Ethel Meahl Scholarship: education
Mephibosheth Scholarship: physically challenged
Merritt Memorial Scholarship: pre-law
Jeffrey Osgood Memorial Scholarship
Osgood Science and Academic Scholarship: physics
S.W. Paine Wycliffe Scholarship: linguistics
Preachers and Missionary Kids Scholarship
Rork Scholarship: biology
Rothenbuhler Scholarship: business administration
Rosa Mae Smith Modern Language Scholarship: foreign language
Paul Robert Steese Memorial Scholarship: Christian testimony
Swift Memorial Scholarship: daughter of missionaries
Stanley P. Szymanski Scholarship: Polish descendant
Jeff Telego Memorial Scholarship: pre-med
Clifford W. and Katherine T. Thomas Scholarship: education
Dean & Doris Bain Thompson, Class of 1938 Scholarship: secondary educ.
Arvis & Mavis Tucker Scholarship: pre-med
United Methodist Scholarship
Gerald & Mildred Vander Veen Scholarship Fund: business administration
Valk Presbyterian Scholarship
Weir Student Personnel Scholarship
Artist A. Wilcox Scholarship: art
Willett Alumni scholarship
Daniel S. Willett Scholarship: communication or writing
Lucele Hatch Wilson Scholarship: teaching
Fred and Floy Willmott Scholarship: United Methodist

High School Grant

High school students may take up to six hours per semester and receive a study grant equal to 90 percent of the tuition. This applies only to standard courses and excludes independent studies, tutorials and internships. The student will be responsible for any associated course or lab fees. This grant may not be held concurrently with any other Houghton study grant.

Houghton Loan Funds

Students may borrow modest amounts for academic needs from one of the college-controlled loan funds. Upperclassmen are given preference.

Unless otherwise stated, the interest rate on the loan issued to a student is the prime lending rate plus two percent per year. A regular payment schedule is set up by mutual consent of the borrower and the Scholarship Committee.

Students applying for Houghton loans may be requested to have the co-signature of a parent or guardian.

General Student Loan

Alumni and friends of the college contribute to the General Student Loan Fund to provide loans for general student use. Among several substantial gifts are those of Lawrence Harris Salle of the class of '37, Miss Matie Keegans, and Mrs. Grace Goldsberry.

Name Loan Fund

Living memorials may be established by creating a name loan fund of \$1000 or over. Presently of use to students are the following:

<u>Name Loan Funds</u>	<u>Established by</u>
Jennie E. Alexander Fund	Bequest
*Darrow Basney Fund	Professor & Mrs. Eldon Basney
*Lucius H. & Mary E. Fancher Fund	Children and Grandchildren
Kenneth Hill Glasier Fund	The Rev. Walter C. Glasier
Lee Christian Service Loan Fund	Bequest
Henry F. Meeker Jr. Fund	Miss Harriet Meeker
George M. Press Fund	Bequest
Clarence Watson Fund	Bequest
<i>*Interest-free while borrower is in school; six percent thereafter.</i>	

All inquiries concerning scholarships, grants, or loans should be directed to: Student Financial Services Office, Houghton College, One Willard Avenue, Houghton NY 14744 (585-567-9328). Houghton College is approved by the New York State Education Department for the training of veterans.

Orphaned children of veterans may enroll under Public Law 634 ("War Orphans Act"). A Certificate for Education and Training is required before proceedings for monthly allowances can be initiated. Application for this certificate is made to the Veterans' Administration. Inquiry for specific information regarding this subsistence grant may be addressed to the director of financial aid.



Academic Information

Academic Vice President and Dean of the College

The dean is the chief academic officer at Houghton. Questions concerning academic policy and programs should be directed to the dean. The office is on the first floor of Luckey Building.

Dean of Academic Administration

The dean of academic administration supervises the delivery of the academic programs and curricula of the college; administers and applies student-related academic regulations and policies, and carries out other responsibilities as assigned by the academic vice president.

Academic Records

The director of academic records will answer questions concerning records, schedules, transfers, transcripts, etc. The academic records office is on the second floor of Luckey Building.

Department Chairs

The college academic structure is organized into fifteen departments: Art, Biology, Business and Economics, Chemistry, Education, English and Communication, Foreign Languages and Linguistics, History and Political Science, Integrative Studies, Mathematics and Computer Science, the Greatbatch School of Music, Physical Education/Exercise Studies and Recreation/Leisure, Physics and Earth Science, Psychology and Sociology, and Religion and Philosophy. The chair of each department is available to students for counseling and advising.

Faculty

The faculty of the institution includes all full-time teaching faculty, all those individuals classified as nonteaching faculty by the administration (for example, the professional library personnel, the associate deans for student development, and the administrators who report directly to the president). Other categories of faculty include: part-time, lecturers, adjunct and interim.

Degrees Offered

Houghton College offers courses of study leading to the degrees of master of music (MMus), master of arts in music (MA), bachelor of arts (BA), bachelor of science (BS), bachelor of music (BMus), and an associate of arts degree (AA). A two-year Christian ministries course in Bible and related studies leads to an associate in applied science degree (AAS).

Requirements

Graduation

A student must complete at least one major and at least one minor. If a student completes two majors, a minor is not required. Candidates for BA and BS degrees must complete 124 semester hours plus one hour of First-Year Introduction (FYI) required of all first-year students. Candidates for the BMus must

complete 128 semester hours, plus one hour of FYI required of all first-year students. No more than 8 hours of Horsemanship, ROTC, or Theater Workshop may count toward graduation. Also, no more than 8 hours of applied music may count toward graduation for students who are not majoring or minoring in music. The minimum quality point average for graduation is 2.0. Grades in major, minor, and concentration courses must be "C-" level or higher.

Residency Requirements

A student must complete at least 30 hours, one-half of the major and 18 of the last 24 hours at Houghton (except those under the Senior-in-Absentia privilege or those with special permission whose major or minor require them to be off campus). Other cases will require a petition.

Second Degree

A student completing two majors, one leading to the BS degree and the other leading to the BA degree, is asked to choose which of the degrees to receive, and then graduates with one degree and two majors. The only situation in which a student may be awarded two *different* baccalaureate degrees simultaneously is by completing all requirements for both a BMus and either a BA or a BS, including the relevant integrative studies hours for each. Students who have already earned a baccalaureate degree, either at Houghton College or elsewhere, may earn a second baccalaureate degree by completing all Houghton College requirements for the degree and earning at least 30 credit hours in residence at Houghton College subsequent to the awarding of the first degree. If the first degree was granted by Houghton College, the second degree *must* be a different degree, e.g., a BS earned subsequently to a BA. The cumulative grade point average of work subsequent to the first degree must be 2.0 or higher. As with all Houghton degrees at least half of the hours for the major must be earned from Houghton; however, they do not all need to be earned subsequent to the first degree.

Changes in Requirements

Changes in graduation requirements may occur during a student's career. On such occasions, students generally complete requirements as specified in the catalog for the year of their matriculation. However, the student may select a subsequent catalog in effect during his or her college career. Occasionally changes are made which include more precise implementation guidelines. If the student believes the program is unfairly or unreasonably modified, the student should consult the Academic Records Office.

Liberal Arts Requirements

Most of the courses at Houghton College are liberal arts courses, designed either for contributing to a general education or for enhancing understanding of a particular subject area or discipline of inquiry. Other courses are professional in nature, designed to prepare a student for a specific occupation, e.g., education, business, ministry.

The State of New York and Houghton College require a minimum of 90 hours of liberal arts courses for the BA degree and 62 hours for the BS degree (in addition to specialized areas of professional work), and a minimum of 32 hours for the BMus degree. These various curricula are designed to ensure that these minimums are achieved.

Master of Arts in Music; Master of Music

A candidate for a master's degree chooses a curriculum from the listings to be found in the Greatbatch School of Music Graduate Bulletin.

Bachelor of Arts

A candidate for the bachelor of arts degree selects a major and that choice must be approved by the chair of that department.

The BA degree requires a minimum of 90 hours of liberal arts and a total of 124 hours (plus one hour of FYI for Houghton first-year students). An academic minor is also required unless otherwise specified.

Bachelor of Science

A candidate for the bachelor of science degree may select a major from business administration, communication, computer science, Bible, educational ministries, childhood education, physical education, recreation, science, or writing. The BS degree candidate must also complete a minor or minors, plus sufficient elective hours to complete 124 hours. The minor(s) may be either in an area of liberal arts or in a professional field. The BS degree requires a minimum of 62 liberal arts hours and a total of 124 hours (plus one hour of FYI for Houghton first-year students).

Bachelor of Music

A candidate for the bachelor of music degree chooses a curriculum from the listings to be found under music in the Academic Programs section.

Associate of Arts

The AA degree is designed to prepare students for continued studies in the liberal arts. However, the program also provides a general education for those wishing a two-year course for their own cultural enrichment.

A student may earn the associate in arts degree by completing a total of 62 semester hours (plus one credit for FYI as required for entering first year students) as follows

a) 40 hours of integrative studies (as described below)

b) 12 hours in a liberal arts concentration (exclusions are education, business and ministry). A student must receive grades of C- or higher in all courses in the concentration. Normally courses which count for the concentration will be numbered 200 or above (except for the calculus sequence and introductory science courses).

OR an optional non-concentration alternative may be selected where the student completes Houghton College's entire integrative studies package (currently 52 hours: 40 in the foundational area and 12 in the explorational area).

c) Cumulative grade point average must be 2.0 or higher.

d) At least 30 hours, including at least 28 of the last 24, must be from Houghton College, as well as at least half of any concentration.

The integrative studies requirements for the AA:

Required courses - 10

3 hours of Principles of Writing or Advanced Composition

4 hours of Western Civilization

3 hours of Biblical Literature

Additional hours - 30

From any other courses which meet either foundational or explorational level integrative studies requirements, counting no more than one course per requirement. However, introductory foreign language courses may be used for this degree and multiple language courses in a sequence may be used to reach thirty (30).

Associate in Applied Science

A student earns the associate in applied science degree by completing the two-year Christian ministries course of 62 semester hours (plus one credit for FYI, if required), of which at least 22 are in liberal arts.

Majors/Minors

Each student normally selects, during the first semester of the sophomore year, one major and at least one minor area for specialized study. (Note: students who select two majors do not need a minor.) Enrollment in other than registered or otherwise approved programs may jeopardize a student's eligibility for certain student aid awards. Houghton College grants degrees in the following areas:

<i>Department of Art</i>	<i>Degree</i>	<i>HEGIS Code*</i>	
Art	BA		1002
<i>Department of Biology</i>			
Biology	BA, BS		0401
General Science	BA, BS		4902
<i>Department of Business and Economics</i>			
Accounting	BS		0502
Business administration	BS		0506
<i>Department of Chemistry</i>			
Chemistry	BA, BS		1905
General science	BA, BS		4902
<i>Department of Education</i>			
Childhood Education	BS		0802
Adolescence Educ:			
Biology	BA		0401.01
Chemistry	BA		1905.01
English	BA		1501.01
French	BA		1102.01
Mathematics	BA		1701.01
Physics	BA		1902.01
Social studies	BA		2201.01
Spanish	BA		1105.01

<i>Department of English and Communication</i>		
Communication	BA, BS	0601
English	BA	1501
Writing	BA, BS	1507
<i>Department of Foreign Languages and Linguistics</i>		
French	BA	1102
Spanish	BA	1105
<i>Department of History and Political Science</i>		
History	BA	2205
International relations	BA	2210
Political science	BA	2207
<i>Department of Integrative Studies</i>		
Intercultural studies	BA	2210
<i>Department of Mathematics and Computer Science</i>		
Computer Science	BS	0701
Mathematics	BA	1701
General science	BA, BS	4902
<i>Greatbatch School of Music**</i>		
Music	BA, MA	1004, 1005
Composition	MusB/MM	1004.10
Music Education	MusB	0832
Perf: Piano	MusB/MM	1004
Perf: Voice	MusB/MM	1004
Perf: Stringed Instruments	MusB/MM	1004
Perf: Organ	MusB/MM	1004
Perf: Brass Instruments	MusB/MM	1004
Perf: Woodwinds	MusB/MM	1004
Collaborative Performance	MM	1004
Conducting	MM	1004

***See Graduate Bulletin for information regarding Masters Degree programs in Music.*

<i>Department of Physical Education/Recreation</i>		
Physical education	BS	0835
Recreation	BS	0835
<i>Department of Physics and Earth Science</i>		
Applied Physics	BS	1999.20
Computational Physics	BS	1999.20
Physics	BA, BS	1902
General science	BA, BS	4902
<i>Department of Psychology and Sociology</i>		
Psychology	BA	2001
Sociology	BA	2208
<i>Department of Religion and Philosophy</i>		
Bible	BA, BS	1510
Christian ministries	AAS	5502
Educational ministries	BS	1510
Humanities	BA	4903
Philosophy	BA	1509
Religion	BA	1510
<i>Interdisciplinary/Special Studies</i>		
Management	BS	0515
Liberal arts	AA	5649

**HEGIS - Higher Education General Information Survey*

Integrative Studies (General Education)

Academic work at Houghton is organized under four heads: integrative studies, major work, minor work, and elective work. The system of majors and minors provides for general coordination and some intensive training that is often introductory to later professional preparation. Each student should select a major and at least one minor.

Majors/Minors

In the major the student must complete a minimum of 24 semester hours of major credit (any course numbered 200 or above unless otherwise specified). At least one-half of a student's major must be completed at Houghton. The minor consists of 12 or more hours of work acceptable for major credit unless otherwise stated. No grades below C- count toward the major or minor. Students majoring in a Bachelor of Music curriculum may, with the approval of the director of the Greatbatch School of Music, be permitted to count one D level grade in the music theory sequence (MTH 225, 226, 325, 326) and one D level grade in the music history sequence (MHS 231, 232, 333, 345).

Contract Minor

This option is available for students wishing to specialize in an area not covered by an existing minor. It consists of 12 to 15 hours of courses 200 or above and will be proposed by the student in consultation with the faculty advisor and approved by the Academic Dean's office. Approval for such contract minors will include consideration of how the choice of courses supports the stated academic goals of the student.

Integrative Studies Requirements for BA and BS Degrees

In keeping with the major objective of the college, to provide a liberal arts education within the framework of the Christian faith, each candidate for the BA and BS degree is required to take a stipulated package of courses unless given graduation credit and/or advanced standing on the basis of advanced placement or standardized departmental tests. (Graduation credit and/or advanced standing are contingent on a favorable review of the examination papers by Houghton faculty members.)

POLICIES

Semester Schedule Load-Limit Policy

The flat-rate tuition plan at Houghton allows students to take 12 to 18 credits per semester, and a typical student's course load is 15 or 16 semester hours. However, some special limitations and conditions apply.

- a. A student admitted under "**light-load**" provisions is not permitted to take more than 14 credit hours. (Note: Highlander Adventure [2 credits] will appear on the fall transcript but does not count against load limits.)
- b. The student on **academic probation** is not permitted to take more than 15 hours.
- c. Any other student in good standing may take up to 17 hours. However, a student on **academic guidance** who wishes to take 16 or 17 hours must have the explicit approval of the advisor or mentor.
- d. To take 18 credit hours, a student must have the specific permission of his or her advisor recorded on a form in the academic records office.
- e. To take 19 credit hours, a student must petition the associate academic dean for permission to do so. This academic petition requires the approval of the advisor.
- f. Special circumstances may be addressed through academic petition. (Academic petition blanks and load-limit forms are available in the academic records office.)

The student's choice of courses, once made and filed, is expected to be permanent for the semester. If a course change becomes necessary, it must be recorded on a change of schedule form provided by the academic records office. After the form has been signed by the student's curriculum advisor, it must be returned to the above office immediately.

Drop/Add Permission

Courses (including independent studies and tutorials) may not be added for credit after the first ten academic days. Courses from which a student withdraws during the third through the tenth weeks will be recorded as "W". Courses discontinued within the last four weeks of the semester are assigned "F". **Students are not officially withdrawn from a course until the signed change of schedule form is in the academic records office.** The date on which a student officially withdraws is the date given on the notification sent to the instructor from the academic records office. (See Mayterm policy for additional important information.)

Classroom Attendance

Students are expected to attend classes. Each instructor will state expectations in the course syllabus that is to be distributed at the start of each semester.

Audit

Courses may be audited with permission from the professor. This involves enrolling for the course, attending, but receiving neither grade nor academic credit. Charges vary according to the type of course being audited and the rest of the student's load. The full policy can be found at the academic records office.

Double-counting

This policy addresses the situation in which a single course satisfies requirements in more than one major or minor subject. Such a course is permitted to count toward the credit-hour requirements in more than one major or minor subject if and only if (1) the student's program in each major subject includes a minimum of 24 credit-hours of coursework not double-counted and (2) the student's program in each minor subject includes a minimum of 12 credit hours of coursework not double-counted. This policy also applies to courses that are cross-listed, that is, that are identified by more than one prefix, as long as the course-level requirements for those cross-listed courses are the same. Courses that are not the same should be identified by different numbers as well as different prefixes. The restrictions on double-counting described above do not apply to courses that fulfill both integrative studies requirements and the requirements of a major or minor. That is, integrative studies courses may be counted toward a major or minor subject without limitation. *Neither do the restrictions on double-counting apply to concentrations associated with the childhood education major.*

Religious Observances

In compliance with New York's Hevesi-Levy Act, Houghton College will accommodate any of its matriculated students who are unable to register for classes, take an exam, or attend a class because of religious beliefs (taken to mean the doctrinal beliefs of religious organizations which qualify as tax-exempt corporations under federal law).

Grading System

A literal system is used in the grading of college course work as follows:

A = Excellent	(94-100%)	A = 4.00	A- = 3.67	B+ = 3.33
B = Good	(85-93%)	B = 3.00	B- = 2.67	C+ = 2.33
C = Average	(73-84%)	C = 2.00	C- = 1.67	D+ = 1.33
D = Passing	(65-72%)	D = 1.00	D- = 0.67	
F = Below minimum standards		F = 0		

W-Withdrawn. An indeterminate grade applicable to a withdrawn course from the third through the tenth week of classes.

I-Incomplete. A temporary grade limited to a course in which a student has been excused for illness or given an extension for another significant reason. An incomplete grade is allowed to stand through one academic semester. Unless a grade has been provided at that time, the incomplete grade automatically reverts to an "F". Incomplete forms must be obtained from the academic records office.

P-Indicates satisfactory work done (equivalent to a regular grade of D or above); gives semester hours but no quality points.

U-Indicates unsatisfactory work; credit is not earned from the course and does not figure in the overall quality point average.

M-Indicates no grade was assigned. It may be used at midsemester when a class has not commenced, or for student teachers, or when special permission is granted by the academic records office. It can never be used at the end of a semester or a summer session.

NR-No grade assigned. Used only for courses extending beyond one semester.

Grade Grievance Procedure

The college has approved a formal procedure for resolving those occasions when a student actively disagrees with the grade received in a course. The steps are:

1. Within the first two weeks of the subsequent semester, the student will meet with the instructor. If a grade inaccuracy is determined, the instructor will process a grade change request.
2. If agreement cannot be reached, the student may contact the instructor's department chair, in writing, within ten working days after the meeting with the instructor. If agreement is reached, a grade change request is processed. If there is no agreement, or if the instructor is also the department chair, go to the next step.
3. The student may appeal the decision to the associate academic dean, in writing, again within ten working days. The AAD shall investigate carefully and render a decision, which shall be final. If the decision is to reconsider the grade:
 - a. The AAD shall, within ten days, form a panel of uninvolved, tenured faculty from the instructor's department. (From a designated pool, the AAD, the instructor, and the student will each select one member of the panel.)
 - b. The panel, within 30 days, will review all appropriate material and determine the final grade. The panel may retain the original grade or assign a new grade (which may be higher or lower than the grade in question), and it will so inform the records office.

Quality Point Average (also known as grade point average)

To derive a scholastic average for all of a student's courses each semester, letter grades are assigned numerical equivalents (as shown above) then multiplied by the credit hours for the course. The quality point equivalents grade point for all courses taken are totalled, then divided by the number of semester average) hours carried.

An example:

Course	Hours	Grade	Value	Points
Biblical Literature	3	C	2.00	6.00
Western Civilization	2	B	3.00	6.00
Lifetime Wellness	1	B-	2.67	2.67
Pre-Calculus	3	D+	1.33	3.99
Intro to Psychology	3	B+	3.33	9.99
Intermediate Spanish	4	A-	3.67	14.68
Totals	16			43.33

QPA = 43.33 divided by 16 = 2.708, recorded as 2.71

Courses taken off-campus under Houghton College direction (see special studies section) are considered to be work taken at Houghton College and grades will be recorded. For all other satisfactory off-campus coursework, only a "P" grade can be recorded.

Repeating a Course

Students can only repeat courses in which they received D+ or lower. When a course is repeated at Houghton, only the higher grade will count in the calculation of the cumulative average. The hours count only once. Both courses and both grades remain on the transcript with an indication of which course is counted. Repeating a course may influence a student's financial aid or sports eligibility.

Eligibility for Participation

A student in good standing must maintain a cumulative quality point average of 2.0; being in good standing is a prerequisite to eligibility to participate in all college activities (unless specifically waived). Note: some campus positions require a 2.5 QPA; investigate before any election.

Both the semester and cumulative quality point averages can affect one's eligibility.

Honesty

Students are expected to exhibit extreme care relative to personal honesty in the classroom, in homework, in papers submitted to the instructor, and in quizzes and tests.

Dishonest work in written assignments is (a) the receiving of aid or information without giving due recognition to the source from which the aid or information was obtained, or (b) the giving of aid or information without ascertaining that due recognition is being given to the source. Each professor shall define to the class what constitutes dishonest work in the course.

Students found guilty of dishonesty in any daily work, notebook work, term papers, or tests will automatically receive a zero for that work. All offenses shall be reported to the Academic Records Office. The ARO will notify the academic dean about all repeat offenses.

Any dishonesty on a test or examination will be referred to the associate dean and will result in loss of credit for the course and a notation on the permanent records of the college.

Dishonest work may be considered grounds for suspension from the college. Unauthorized use of college computing equipment, facilities, or programs may also be considered grounds for suspension from the college and may lead to more serious consequences.

Classification

To receive classification as a sophomore, the student must have a minimum of 28 semester hours of accumulated credits; as a junior, a minimum of 60 hours; as a senior, a minimum of 90 hours. The student must also have maintained a quality point average of 2.0 for unconditional classification in any class.

Academic Guidance & Probation

Each incoming student is assigned a faculty mentor who is responsible for academic advising during the first year. A student receiving a semester quality point average below 2.00 but who is not placed on academic probation is placed on academic guidance and is encouraged to work closely with the mentor or advisor.

A student whose cumulative quality point average for Houghton College work falls below the following guidelines at the conclusion of a semester is considered in serious academic difficulty and is placed on academic probation, and the student is required to meet with the mentor or advisor to develop a plan for academic improvement. Such a student is limited to 15 credit hours in the following semester. (Hours earned includes transfer hours.)

If the total credit hours earned is less than 15, GPA must be at least 1.0.

If the total credit hours earned is at least 15, but less than 27, GPA must be at least 1.5.

If the total credit hours earned is at least 27, but less than 39, GPA must be at least 1.75.

If the total credit hours earned is at least 39, GPA must be at least 2.0.

The placement of students on guidance and probation occurs at the end of the semester grading period. If additional information is received that changes or completes the record, any change in status is made at the discretion of the academic dean.

Academic Dismissal

A student is academically dismissed if he or she meets the criteria for probation two semesters in a row.

Any student dropped from the college for academic reasons may petition the Admission Committee for readmission. The case will be carefully studied to see if there is a basis for resuming the college program at Houghton.

A student dropped from the student body for the above reason and readmitted by the Admissions Committee is placed on academic probation and must maintain a quality point average of 2.00 or higher for each semester thereafter in order to remain in college.

Scholastic Honors:

President's List - To recognize students carrying a full load who achieve the ultimate grade point (4.0) in a semester, the President sends each student a letter of commendation.

Dean's Honor List - At the close of each semester, the dean of the college sends each student a letter who completes a minimum of 12 hours and who achieves a quality point average for the semester of 3.75 or above.

Dean's List - At the close of each semester, the dean of the college publishes on the college website a list of all students completing a minimum of 12 hours whose quality point averages 3.5 or above.

Graduation Honors

The faculty will select for graduation honors students of outstanding scholarship. For the recognition of cum laude, the student must have a cumulative quality point average of at least 3.25; for magna cum laude, at least 3.50, and for summa cum laude, at least 3.80.

Students transferring from other colleges must complete 62 hours in Houghton College in order to be eligible for graduation honors. Graduation honors as published in the May commencement program are based on the cumulative record at the end of the spring (normally eighth) semester, including the valedictorian and salutatorian.

Honors Project

Outstanding students may be candidates for honors study projects and commencement citations in their major fields. To be declared eligible to undertake this special study program, a student must have a cumulative quality point average of 3.25 and a 3.4 average in the major (courses numbered 200 and above). A proposal must be prepared and submitted for approval over one year prior to graduation. Guidelines and policy details can be found at the academic records office.

Independent Study

Independent study is a directed course in reading or research in which the student pursues a topic of general or special interest and meets with the instructor for direction, progress reports, and evaluation. To be eligible for independent study, a student must have unconditional standing as a sophomore or higher and must have a cumulative GPA of 2.75 or better.

An application for independent study should be submitted during the semester **prior** to the semester of study. However, as an absolute cutoff, each application must reach the associate academic dean on or before the **seventh calendar day** after the first day of classes. May term/Summer independent study applications should reach the associate academic dean by validation day.

A student may take independent study for 1, 2, or 3 hours a semester up to a maximum of 12 semester hours toward graduation. Any faculty member may supervise the independent study project, which must not duplicate regular course offerings. The burden of responsibility for learning will be on the student. Work on an independent study is to be completed within the semester, as in other courses.

Internships

Many academic programs at Houghton College recognize a field placement experience as an integral component of professional preparation. Internships are considered to be quality, experiential learning opportunities, generally in off-campus, nonacademic settings. They are intended as highly structured, professionally supervised experiences and usually occur during the junior or senior year of the student's academic program. Internships require approval by the supervising academic department and

extensive involvement by the student. Supervision is a shared responsibility between the academic department and the selected field agency.

Tutorial Study

Tutorial work is for the benefit of the student who needs a currently unavailable course; for example, one not scheduled for the semester when it is essential for graduation or for remedial purposes. Tutorial courses must be from the regular college catalog. Course approval and registration for tutorial courses shall be made in advance of the instructor's assigning any tutorial work for credit. Concurrence by the advisor, instructor, department chair, and associate academic dean is required. The forms to be used for a proposed tutorial are available in the academic records office.

A tutorial fee shall be charged (see information on expenses). The teacher must meet with the student a minimum of 7.5 clock hours for each credit earned for the purpose of giving instruction and directing the work.

Mayterm

The three-week Mayterm begins on the Tuesday immediately following Commencement and usually concludes before June 1, except for 4-hour courses. Participation in Mayterm is voluntary.

The academic purpose is to permit students to take an additional three semester hours of credit before commencing summer employment. In general, catalog courses are offered. Students and professors also are encouraged to work together on campus doing independent studies. Off-campus practicums, if desired, are arranged by the department chair. Travel in the U.S.A. and abroad is a feature of this period. See Financial Information section for tuition information.

Senior-in-Absentia

Students of outstanding ability who are accepted by an accredited professional school after the completion of three years of undergraduate work may qualify for the appropriate degree by transferring back for Houghton credit the first two years of professional study, thus shortening by one year their professional training. Such students will be taking their senior year in absentia. In such instances the Houghton degree will be conferred at the end of the second year of professional studies. Senior-in-absentia privilege does not apply to AA or AAS students.

The privilege described above may be available to students wishing to enter professional training for a career in medicine, veterinary medicine, dentistry, law, or engineering. Students entering nursing also may qualify for the senior-in-absentia privilege by transferring two years of nurse's training for the Houghton degree.

Preliminary application for the senior-in-absentia privilege must be made to the Houghton associate academic dean in the spring of the junior year. Additional details on this plan may be obtained from the academic records office. Students should notify the office of records at the beginning of their senior year. All senior-in-absentia students are considered August graduates.

Withdrawal from college

Any student in good standing is entitled to honorable withdrawal at any time. A student desiring to withdraw from the college (or one who does not plan to return the following semester) must obtain from the academic records office an application for withdrawal. After securing the appropriate signatures, the student must have the record cleared by the student financial services office. The form must be properly completed and filed with the academic records office before the student leaves campus. Withdrawal from college without accomplishing the above procedure will result in forfeiture of the right to honorable dismissal. No refunds (if applicable) will be made by the student financial services office until the academic records office certifies that the withdrawal procedure has been properly completed.

A student called away during the semester by an emergency (including military duty) and who finds it impossible to resume, must notify the academic records office of withdrawal immediately. Unless this notice is filed within three weeks, the student may forfeit the right to honorable dismissal and receive a grade of F in each course.

A student who withdraws or terminates must leave the ID card with the student financial services office at the signing of the withdrawal or termination notice. If the ID card has been lost or misplaced, a statement must be signed to that effect.

Student Academic Services

Houghton College offers learning-support services for students who qualify, including those with learning, mobility, sensory, or health impairments. Any student may come for academic counseling or tutoring support. Services available include: analysis of study strengths and weaknesses; counseling in time management, learning strategies, and examination strategies; some course-specific peer tutoring, and screening for other learning problems.

Students with Disabilities

Houghton provides academic support services to students with disabilities including those with learning, mobility, sensory, health, or psychological impairments. These services include liaison with faculty members, promotion of self-advocacy skills, and securing appropriate classroom accommodations. Study skills counseling and some tutoring are also available. Students with disabilities are encouraged to contact the Director of Student Academic Services during the application process to discuss required documentation and appropriate accommodations. Documentation should be no more than three years old. Diagnosis by an appropriately trained professional is required.

Students needing academic adjustments or learning support services must contact Dr. Susan M. Hice, Director, Student Academic Services (585.567.9239).

Students needing facility adjustments must contact Jeffrey B. Spear, Vice President for Finance and 504 Coordinator (585.567.9312).

The complete Policy for Students with Learning-Related Disabilities may be obtained from Dr. Hice or from the Admission Office.

Academic Petitions

Each student at Houghton may petition the associate academic dean, through the academic petitions committee, regarding any academic matter. Specific actions requiring petition include: waiver of a specific academic requirement, waiver of a specific academic rule or stipulation, permission for a special academic condition or activity, or a request to take more than 18 credit hours in a semester.

Actions not requiring petition action: permission for 18 hours (use "Request for Academic Overload Form"), permission to increase credits in variable-credit course (use "Change of Schedule Form"), or permission to attend off-campus program (use specific application).

Further information is available in the academic records office.

Courses of Instruction

Course Numbering System

100 level courses...

- typically taken the freshman year
- do not typically give major or minor credit

200-399 level courses...

- typically taken the sophomore or junior year
- major credit requires courses to be at this level or higher
- foundational courses for majors and minors
- courses that build upon one or more foundational courses in the same discipline
- or represents advanced integrative studies

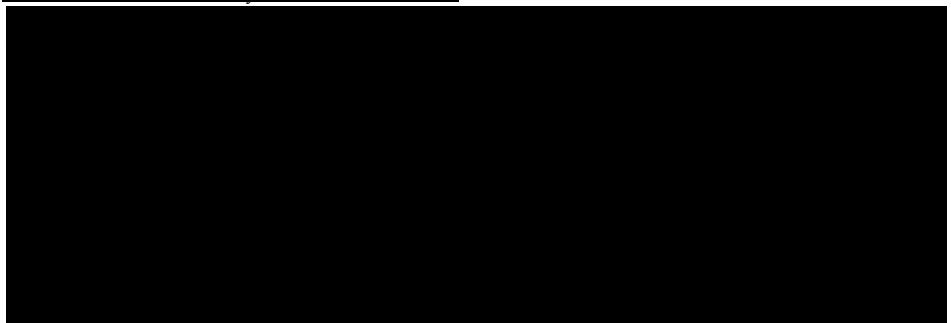
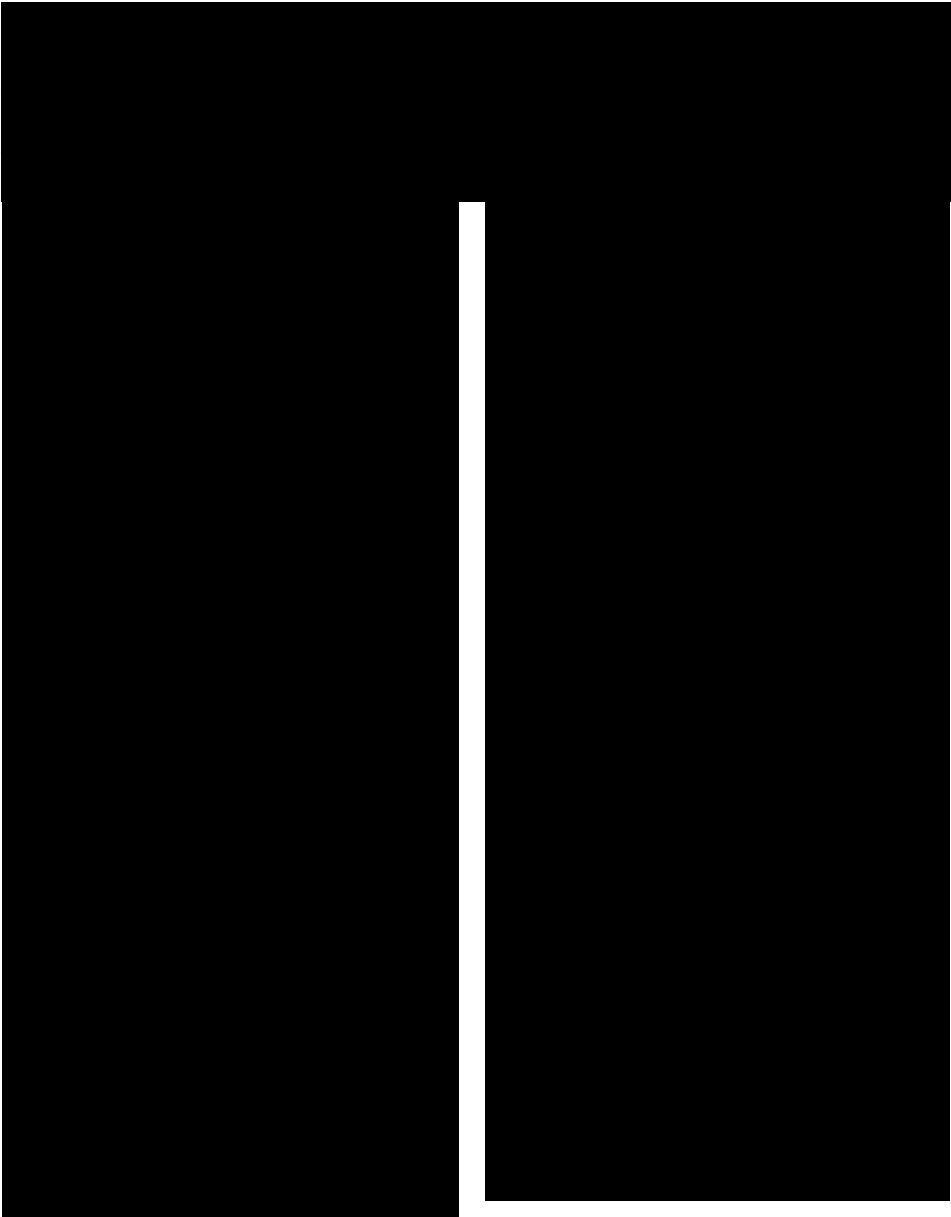
400 level courses...

- typically taken late in the curriculum
- build upon two or more lower numbered courses in the same discipline
- class size is generally smaller
- pedagogy is seminar style or discussion-oriented or collaborative

Course Description Codes

Code	Explanation
3	Number of credit hours for the course (variable: may be 1, 2, 3, 4, or more)
3/3	Credit hours for a two-semester sequence
1, 2, or 3	Credit hour options
F	Course offered in fall
S	Course offered in spring
F&S	Course offered in fall and spring
May	Course offered in Mayterm
Summer	Course offered in a summer session
OD	Course offered on demand
F04	Course offered in fall, even-numbered years
F05	Course offered in fall, odd-numbered years
S05	Course offered in spring, odd-numbered years
S06	Course offered in spring, even-numbered years
F/S	Course offered in two-semester sequence
F/S 04-05	Two-semester sequence, offered alternate years

Note: The courses listed and their descriptions are subject to change. Adjustments in teaching assignments and normal academic flexibility may modify the material in this catalog.



Integrative Studies

Faculty: Paul Young (chair), Rebecca Loaiza, David Perkins, Mark LaCelle-Peterson, Ben Lipscomb, Peter Meilaender, Terence Paige, Stephen Woolsey

General Information:

The Department of Integrative Studies (IS) was created to express Houghton's commitment to the liberal arts and in particular to integrative studies or general education. It comprises faculty who serve jointly in this as well as their home departments. The goals of the department are:

1. To give IS equal standing with other aspects of the academic curricula;
2. To bring cohesion, sequence, and identity to IS, making it a distinctive of Houghton College;
3. To provide avenues of oversight, assessment, and innovation for the IS curriculum and its faculty;
4. To foster interdisciplinary cooperation within the IS curriculum;
5. To accomplish this by focusing on physical, emotional, social, cognitive, moral, and faith development as well as on integration of multiple disciplines, of values and faith with learning, and of theory and history with practice.

Major/Minor: None

Houghton College Integrative Studies Requirements - BA/BS

The following requirements *must* be taken in the first year: **Biblical survey, college orientation, western culture and writing.** The following requirements *should* be taken in the first year: foreign language, physical education and library research. Total hours for integrative studies equals 53.

Liberal Arts Foundation Requirements (formerly Level 1) (41 hours)

First Year Core:

- (3) **Biblical Survey:** BIBL 101 Biblical Literature
- (1) **College Orientation Requirement:** CLLS 101 First Year Introduction
- (3) **Writing:** ENGL 101 Principles of Writing *or*
WRIT 212 or 213 Advanced Composition (for students with a score of 670 or higher on the verbal portion of the SAT).
- (0) **Library Research**
- (2,2) **Western Culture:** HIST 101, 102 Western Civilization I and II

First Year, if possible

- (3) **Intermediate Language**
(3,3) Beginning Language I and II may be prerequisite
(Childhood education majors are required to take no more than two semesters of a modern foreign language.)
FREN 201 Intermediate French
GERM 201 Intermediate German
GREK 321 New Testament Greek
LATN 221 Intermediate Latin
SPAN 201 Intermediate Spanish
Complete the beginning level of two ancient languages: Greek, Hebrew, and Latin
(beginning level of coursework is understood to mean 101 and 102)
(Students whose native language is other than English may satisfy the foreign language requirement with English. Their English proficiency is demonstrated by their ability to meet all other Houghton College graduation requirements.)
- (3) **Mathematics**, chosen from:
MATH 107 Pre-Calculus
MATH 181 Calculus I
MATH 182 Calculus II
MATH 261 Linear Algebra
- (1,1) **Physical Education:**
PHED 101 Lifetime Wellness or 237 Holistic Health
PHED 102 Physical Education
Alternatives to PHED 102:
PHED 103, 104 Adaptive Physical Education
PHED 220 Adventure Sports
REC 103 Initiatives
REC 104 Backpacking
REC 105 Backpacking/Canoeing

REC 109 Highlander Adventure Program
 REC 211 Ecotour in Honduras
 REC 212 Ecotourism in Africa
 REC 218 Winter Ski Outing
 REC 228 Trip Experience
 HRSM 113 Horsemanship I
 PHED 244 Instructor's Course in Red Cross Water Safety

Second Year, if possible

(2) **Communication:**

(2) COMM 201 Fundamentals of Speech, or one of these:

(3*) COMM 210 Public Speaking

(3*) COMM 216 Organizational Communication

[*Hours above 2 count for degree but not for foundation level]

(3) **Christian Theology:** THEL 209 Intro to Christianity

(3) **Literature:** ENGL 201 Literature of Western World

(4) **Philosophical Foundation** chosen from

(a) The combination of PHIL 200 Knowledge & Reality (2) and either PHIL 201 Ethics (2) or PHIL 210 Community, Ideology, and Environment (3); or

(b) PHIL 202 Metaphysics, Morality, and Mind (4); or

(c) PHIL 241 and 242 History of Philosophy I and II (8)

No specific year

(3) **Fine Arts**, chosen from

ART 131 Introduction to Visual Arts

ART 132 Art and Architecture in Context in Europe

ART 211 Drawing I

ART 221 Painting I

ART 230 Art in Europe Since the Renaissance

ART 231 Ancient Art History

ART 232 Renaissance Art History

ART 233 Art for the Grade School Teacher (Childhood Ed majors only)

ART 234 Art and Architecture in Europe

ART 237 Modern Art History

ART 241 Two-dimensional Design

ART 242 Three-dimensional Design

ART 245 Graphic Design I

ART 251 Sculpture I

ART 261 Printmaking I

ART 271 Ceramics I

ART 281 Foundations of Photography

ART 295 ST: Introduction to Watercolor Painting

ART 295 ST: Imaging the Landscape

ART 295 ST: Portraying Place

ART 314 Art and History of Film

ART 322 Contemporary Art and Critical Theory

ART 395 ST: Landscape Painting

ART 395 ST: Portraying Place

MLT 113 Masterworks of Sight and Sound

MLT 211 Intro to Music and Listening

MHS 222 Intro to Film Music

MHS 254 Music of World Cultures

MCHU 216 Intro to Hymnology (ministerial program only)

MCHU 351 Music and Worship

MUS 137, 143, 144, 145, 147, 149 Ensembles

(3) **Social Science**, chosen from:

ECON 210 Principles of Microeconomics

ECON 211 Principles of Macroeconomics

POLS 101 Introduction to Politics

PSY 111 Introduction to Psychology

SOC 101 Principles of Sociology

SOC 243 Cultural Anthropology

(4) **Science** (with lab), chosen from

BIOL 103 Fundamentals of Biology

BIOL 105 Conservation Biology

BIOL 151 General Biology

CHEM 207, 208 Intro to Nutrition and Lab (both required)
 CHEM 113 Elements of Biochemistry
 CHEM 151 General Chemistry
 ESCI 101 Physical Geology
 ESCI 102 General Astronomy
 ESCI 212, 213 Environmental Earth Science and Lab (both required)
 ESCI 224 Atmospheric Science
 PHYS 151 General Physics

Note: INTS 152 Honors Study in London satisfies Foundation Level requirements in western culture, philosophy, literature and fine arts.

Liberal Arts Exploration (formerly Level II) (12 hours)

Qualified courses are identified by the disciplinary prefix.

(3) **Advanced Bible**

A course with the BIBL prefix. Exclusions: BIBL 101 Biblical Literature; BIBL 251 Bible History and Geography; BIBL 261 Holy Land Tour; BIBL 341 Missions in Biblical and Theological Perspective; and BIBL 395 Special Topics in Bible, unless specifically approved. Special Topics in Bible courses that have been approved to meet this requirement include Women in the Bible and Science and Scripture.

(3) **Humanities**

A course with the prefix ENGL, HIST, HUM, PHIL, THEL, or MHS, or any course in foreign language literature, or a course in Art History from ART 231, 232, 237, 314, or 322. Exclusions: ENGL 205 English grammar; and Art majors may not use an ART course to meet the humanities requirement.

(3) **Natural Science and Mathematics**

A course with the prefix BIOL, CHEM, ESCI, MATH, PHYS. Mathematics majors may not use a MATH course to meet this requirement. Exclusions: MATH 107 Pre-Calculus; MATH 190 Mathematical Applications and Issues.

(3) **Social Science**

A course with the prefix ECON, POLS, PSY, SOC. The discipline must be different from the one used to fulfill the Liberal Arts Foundation requirement. The following courses do not meet this requirement: POLS/PSY/SOC 309 Statistics; POLS/SOC 312 Research Methods.

Houghton College Integrative Studies Requirements - BMus

These may be found in the Academic Programs section of the catalog under Music.

Course Descriptions

CLLS 101 First-Year Introduction (FYI) (P/U)

(1, F&S)

FYI is an introductory course which addresses issues that first year students need to know to better acquaint themselves with college life. The course is aimed at developing an overall perspective of the issues related to integration into a liberal arts college, addressing basic issues of adjustment to the academic milieu of higher education. Large-group and small-group sessions occur during the first nine weeks of the fall semester. Required of all entering first-year students.

INTS 152 Honors Study in London

(15, S)

(See course description in Off-Campus Programs-First Year Honors Program.)

INTS 301 Engaging Australian Culture

(1, F)

Weekly exploration of Australian culture outside the classroom, through travel, cultural events, and talking with Australians.



Academic Programs

ACCOUNTING (major and minor)

Department of Business and Economics: Kenneth J. Bates, chair

Faculty: Stephen B. Alderman, Jonathan E. Bradshaw

Website and e-mail: www.businessathoughton.com, business@houghton.edu

Mission: To develop Christlike scholar-servants to serve the people and manage the resources of corporations, small businesses, not-for-profit organizations, and churches.

Major: (46 hours in the major; 14 in pre/co-requisites)

The accounting major is a registered accounting curriculum in New York State and prepares a student to sit for the CPA exam in NYS.

Required courses for the major but without major credit:

ACCT 211	Financial Accounting I	3
ACCT 212	Managerial Accounting	3
ECON 210, 211	Principles of Micro and Macroeconomics	3, 3
BADM 140	Business Software Applications	2
Total:		14

Major required courses:

BADM 213	Business Law I	3
BADM 406	Financial Management	3
BADM 302	Investment Management	3
BADM 309	Statistics	3
ACCT 311, 312	Accounting Theory I & II	6
ACCT 314	Cost Accounting	3
ACCT 315	Auditing	3
ACCT 316	Federal Income Tax	3
ACCT 317	Management Information Systems	3
ACCT 418	Advanced Accounting	3
BADM 212	Principles of Management	3
BADM 218	Marketing Principles	3
BADM 481	Senior Capstone: Senior Seminar	1
Total:		34

Major elective credit courses; choose 3 hours

BADM 301	Business Communication (BADM 301)	3
BADM 314	Human Resources Management	3
BADM 417	Business Strategy & Policy	3
(see double major option below)		

BADM 421	Internship in Accounting	6
BADM 496	Honors in Business	3
Economics courses numbered 200 or above	3	
Total:		3

Elective credit courses; choose 9 hours from

ACCT, BADM, or ECON course numbered 211 or above	9
Integrative studies	52
Liberal Arts minor or electives	16
Grand Total	125

Double-major option: Students who wish to have a double major in Business may accomplish this by taking Marketing, Business Strategy and Policy, and three additional hours of ACCT, BADM, or ECON numbered 211 or above.

CPA exam preparation: Students considering taking the CPA exam are strongly encouraged to take Business Communication, Business Law II, and Accounting for Non-Profits.

CMA exam preparation: Students considering taking the CMA exam are encouraged to take Business Communication and Operations Management.

Minor

An accounting minor consists of 15 hours above Accounting Principles I (ACCT 211). A student electing to take an accounting minor with a business administration major may not use accounting courses to fulfill elective requirements in the major area.

Computer Use Competency Requirements

All students majoring in any program of the Department of Business & Economics must meet a set of computer use competency requirements. (See details in the *Business Administration* section.)

Course Descriptions

ACCT 211 Financial Accounting (3, F&S)

Basic theory and practices of financial accounting for proprietorships, partnerships, and corporations. Spreadsheet competency recommended.

ACCT 212 Managerial Accounting (3, F&S)

Basic theory and practices of managerial accounting for decision-making within the organization. Spreadsheet competency recommended.

ACCT 311 Accounting Theory (3, F)

Study of the assumptions, constraints, and principles that underlie accounting. Prerequisite: ACCT 212

ACCT 312 Accounting Theory II (3, S)

Special problems in accounting. Measurement and valuation of assets, liabilities, and equities. Accounting for contingencies, bonds, pensions, leases, consolidations. Financial position and statement analysis. Prerequisite: ACCT 311

ACCT 314 Cost Accounting (3)

Job order cost accounting, process cost accounting, standard cost systems, cost allocations, budgeting, cost-profit-volume analysis, behavioral considerations. Prerequisite: ACCT 212

ACCT 315 Auditing (3)

Practices and procedures used by internal auditors and CPAs in verifying financial statements and records of organizations; legal and ethical requirements of auditor. Prerequisite: ACCT 212 or permission

ACCT 316 Federal Income Tax (3, F04)

Introduction to history and development of federal income tax. Study directed toward preparation of individual and corporate returns under IRS code and tax implications of management decisions. Prerequisite: ACCT 211, 212 or permission

BADM 317 Management Information Systems (3, S05)

Design, maintenance, monitoring of information systems. Includes systems and audit concepts. Prerequisites: BADM 140, ACCT 211, 212.

ACCT 323 Tax Practicum (1, S)

Supervised preparation of tax returns through the Voluntary Income Tax Assistance Program sponsored by the Internal Revenue Service. Prerequisite: ACCT 316.

ACCT 330 Accounting for Government and Not-for-Profit Organizations (3, S05)

Accounting for not-for-profit entities, specifically state and local government, health care providers, welfare, charitable and religious organizations. Covers fund accounting, budget and control issues, revenue and expense recognition, and issues of reporting.

ACCT 421 Internship in Accounting	(6, F; 3, S)
Supervised experience in corporate or public accounting. By application only.	
ACCT 460 CPA Review (P/F)	(1-3, S)
Computer-assisted study and review of all areas covered on the CPA exam. Prerequisites: senior accounting majors or permission.	
ACCT 295, 395, 495 Special Topics	(1-4, OD)
BADM 481 Senior Capstone: Senior Seminar	(1 or 2, S)
Exploration of current issues faced by management. Required of all senior business administration and accounting majors.	

ART (major and minor)

Department of Art: John M. Rhett, chair
Faculty: Gary Baxter, Scot E. Bennett, Theodore J. Murphy, John M. Rhett
Part-time Faculty: Alice Barry, Steven Johnson

General Information

The art department offers a program of study that is structured to develop in students an understanding of the meaning, both past and present, of art in society. Art majors and minors acquire comprehensive experience in use of materials and technique, while gaining confidence in their ability to integrate faith, knowledge, and creativity. The art major complements the Christian liberal arts experience to prepare students for teaching, professional art production, and graduate studies.

Studio areas in which majors and minors may concentrate include ceramics, drawing, graphic design, painting, photography, printmaking and sculpture. The program is diversified through visiting artists, on-campus gallery exhibits, and off-campus trips that expose students to cultural resources in cities throughout the northeast. The art department also offers Mayterm art history experiences every other spring in cities such as Paris, London, Florence, Rome, and Madrid.

Studio Art Major (BA) (49 semester hours)

The studio art major requires 49 hours in art, including a concentration in one studio area, distributed as follows:

Required courses:	
ART 211 Drawing I	3
ART 241 Two-dimensional Design	3
ART 242 Three-dimensional Design	3
ART 311 Anatomy & Figure Drawing <i>or</i>	
ART 411 Experimental Media in Drawing	3
Total	12
Three of the following six (preferably by the end of the sophomore year):	
ART 221 Painting I	3
ART 245 Graphic Design I	3
ART 251 Sculpture I	3
ART 261 Printmaking I	3
ART 271 Ceramics I	3
ART 281 Foundations of Photography	3
Total	9
Four of the following five:	
ART 231 Ancient Art History	3
ART 232 Renaissance Art History	3
ART 234 Art and Architecture in Europe	3
ART 237 Modern Art History	3
ART 322 Contemporary Art & Critical Theory	3
Total	12
Concentration:	
ART 3xx Art Studio Elective**	3
ART 4xx Art Studio Elective**	3
ART 485 Senior Seminar & Concentration	2 or 3*
ART 486 Senior Concentration & Thesis	2 or 3*
Art electives (any ART courses except 131 and 233)	6-9**
*a double concentration requires 3 hours (total: 51)	
**9 hours of electives for the drawing concentration; 6 hours for all other concentrations	

Double major in art and another discipline (37 hours)

There is also a studio art major which requires 37 hours in art for those students who choose to double major, distributed as follows:

Required courses:	
ART 211 Drawing I	3
ART 241 Two-dimensional Design	3
ART 242 Three-dimension Design	3
Total	9
Three of the following five:	
ART 231 Ancient Art History	3
ART 232 Renaissance Art History	3
ART 234 Art and Architecture in Europe	3
ART 237 Modern Art History	3
ART 322 Contemporary Art & Critical Theory	3
Total	9
Concentration:	
ART 2xx Art Studio Elective	3
ART 3xx Art Studio Elective**	3
ART 4xx Art Studio Elective**	3
ART 485 Senior Seminar & Concentration	2
ART 486 Senior Concentration & Thesis	2
Art electives (any ART courses except 131 and 233)	6-9*
**9 hours of electives for the drawing concentration; 6 hours for all other concentrations	

Art Minor (15 semester hours)

A student may obtain an art minor by completing 15 hours in art including any three hours of art history, Drawing I, and nine additional hours of art courses.

Course Descriptions

Ceramics

- ART 271 Ceramics I (3, F&S)**
Basic study of clay as a three-dimensional artistic medium, working with hand-built and wheel-thrown techniques. Introduction to glazing, decorating, and firing processes.
- ART 371 Ceramics II (3, S)**
Intermediate study of clay as a three-dimensional artistic medium. Continuing development of form and craftsmanship through individual projects on the wheel and/or hand-built forms. Additional instruction in glaze chemistry and kiln-firing. Prerequisite: ART 271
- ART 471 Ceramics III (3, S)**
Advanced projects in clay. Emphasis shifted from purely investigatory exercises in form toward clarity of expression and execution. Individually designed projects with tutoring by instructor. Prerequisite: ART 371
- ART 472 Advanced Ceramics (3, OD)**
Self-directed study in consultation with the instructor. Emphasis on development of a quality body of work for exhibition. Prerequisite: ART 471

Design

- ART 241 Two-dimensional Design (3, F&S)**
Theory and application of compositional elements and principles of design. Experiences in two-dimensional problem solving. Lecture, group critiques, discussion.
- ART 242 Three-dimensional Design (3, F&S)**
Theory and application of elements of three-dimensional design through model-scale sculptural projects. Awareness and comprehension of three-dimensional structural and spatial relationships.

Drawing

- ART 211 Drawing I (3, F&S)**
Basic introduction to drawing media and techniques; exploration of concepts of form and space in varied subject matter.
- ART 311 Anatomy and Figure Drawing (3, S)**
Elements, principles, and techniques of artistic anatomy. Emphasis on presentations as they relate to the figure and portrait. Study of skeleton and musculature from casts and live models. Prereq: ART 211

ART 411 Experimental Media in Drawing (3, S)
Experimental processes, techniques, and concepts of investigative drawing. Emphasis is on drawing as an expressive media independent of immediate observation and as a viable end in itself. Prerequisite: ART 211

ART 412 Advanced Drawing (3, OD)
Self-directed study in consultation with the instructor. Emphasis on development of a quality body of work for exhibition. Prerequisite: ART 311 or 411

Graphic Design

ART 245 Graphic Design I (3, F)
Introduction to theory and practice of graphic design communication. Emphasis on techniques for exploration of two-dimensional problems, and interpretation of verbal to visual form. Computer design is introduced.

ART 345 Graphic Design II (3, S)
Further development of conceptualization and visualization skill within graphic design media, including computer design. Assignments directed towards commercial production.

ART 445 Graphic Design III (3)
Subjects include advertising campaigns, corporate identity systems, and a variety of complex contemporary design problems.

ART 446 Advanced Graphic Design (3, OD)
Intense study in preparation for challenges facing the design professional. Special emphasis in one or two areas of expertise, leading to presentation of designer's portfolio. Prerequisite: ART 445

ART 447 Graphic Design Internship (3, OD)
Practical experience to include interviews, placement, work experience in situation of mutual benefit to student and publishing house or designer. Prerequisite: ART 445 and portfolio review

Painting

ART 221 Painting I (3, F&S)
Visual problems of space, form, value and color studied in oil paint. Basic problems of pictorial composition and interpretation through representational/abstract approaches to observing life and the still life.

ART 321 Painting II (3, S)
Intensive study of a single subject which is then extended into a series, to develop a more sophisticated personal visual statement. Examples of subjects include still life, figure, interiors, abstraction. Prerequisite: ART 221

ART 421 Painting III (3, OD)
Emphasis on individual development and refinement of personal expression in various approaches to painting. Prerequisite: ART 321

ART 422 Advanced Painting (3, OD)
Self-directed study in consultation with the instructor. Emphasis on development of a quality body of work for exhibition. Prerequisite: ART 321

Photography

ART 281 Foundations of Photography (3, F&S)
An introduction to photography as a visual arts medium. Suitable for Integrative Studies elective. Emphases will be on developing critical evaluation skills, conceptualization, and production of compelling photographic imagery. Technical aspects of the camera, film development, and printing processes will be examined. Historical survey will aid in the development of a foundational and working vocabulary that engages other visual media and disciplines.

ART 282 Introduction to Black and White Photographic Processes (3, S)
For the student interested in continued development of technical and conceptual skills within traditional black and white processes. Expressive possibilities of special-effect films, filters, chemicals, and manipulative darkroom processes. Prerequisite: Art 281

ART 284 Introduction to Digital Imaging (3, S)
Introduction to the conceptual and technical skill required in creating compelling digital imagery. Students will be introduced to scanning, manipulation, collage, and electronic painting, with a variety of software programs. Digital camera use and the ethics of preparing electronic imagery for both print and online media will be examined. Prerequisite: ART 281

ART 382 Experimental Black and White Photographic Processes (3, OD)
Continued study within traditional black and white photography with an emphasis on experimental processes. Geared to the advanced photography student who wishes to pursue individualized study within one or two specific creative processes. Study will be structured with the art faculty to meet the needs of the advanced student. Prerequisite: ART 282

ART 384 Advanced Digital Imaging (3, OD)
Continued study and development of the creative possibilities of digital image making. Investigation of advanced processes in use of digital cameras and manipulative creative possibilities. Study will be structured by art faculty to meet the needs of the advanced student. Prerequisite: ART 284

ART 482 Advanced Photography (3, OD)
Self-directed study in consultation with the instructor. Emphasis on development of a quality body of work for exhibition. Prerequisite: ART 282

Printmaking

ART 261 Printmaking I (3, F&S)
Introduction to the multiple art object through relief and intaglio processes. Examination of historical significance of print media.

ART 361 Printmaking II (3, OD)
Continued development of conceptual, compositional, technical expertise in one or two printmaking processes, including lithography. Emphasis: color multiple image. One-on-one instruction, group critiques. Prerequisite: ART 261

ART 461 Printmaking III (3, OD)
Individual examination of photo- and/or combination-process print-making, concentrating on personal expression through printmaking medium. Prerequisite: ART 361

ART 462 Advanced Printmaking (3, OD)
Self-directed study in consultation with the instructor. Emphasis on development of a quality body of work for exhibition. Prerequisite: ART 361

Sculpture

ART 251 Sculpture I (3, OD)
Survey of traditional sculptural ideas, tools, techniques, and materials. Group and individual projects dealing with conceptual and formal problems of additive and subtractive methods in wood, metal, stone.

ART 351 Sculpture II (3, OD)
Exploration of three-dimensional form/space through individual creative experiences working with various sculptural media. Prerequisite: ART 251

ART 451 Sculpture III (3, OD)
Advanced exploration of various sculptural concepts with development of the personal statement in one or more media. Prerequisite: ART 351

ART 452 Advanced Sculpture (3, OD)
Self-directed study in consultation with the instructor. Emphasis on development of a quality body of work for exhibition. Prerequisite: ART 451

Special Topics

ART 295, 395 Special Topics (1-3, OD)
A course designed to provide opportunity for students to explore avenues not covered in other listed courses. Examples include, The Artistic Book (bookbinding and papermaking), Figurative Clay Sculpture, Illustration, Portrait Media, Landscape Painting, Landscape Photography, and Web design.

History and Appreciation

ART 129, 229 Artists in Nature (3 or 4, F)
(See course description in Off-Campus Programs - Houghton in Adirondack Park.)

ART 131 Introduction to the Visual Arts (3, F or S)
Overview of the visual arts illustrating basic principles and underlying philosophy of art. Emphasis on the contemporary.

ART 132 Art and Architecture in Context in Europe (3, M06)
A course for the non-art student participating in the Mayterm trip to Europe. Approximately 20 days studying art and artists from antiquity to the present. Readings, journal-keeping and questions pertaining to site-specific works are required. Minor and liberal arts foundation.

ART 231 Ancient Art History (3, F04)
History of world art from prehistoric to the 14th century. Emphasis on function of art as visual communication of religious, political, and social concerns.

ART 232 Renaissance Art History (3)
History of western art from the 14th century to the mid-18th century. Relation of form and content to cultural attitudes. Unique contributions of major artists.

ART 233 Art for the Grade Teacher (3, S)
Lecture-laboratory combination to give the future elementary teacher a grasp of art education theory and the creative use of materials and methods for various age groups. Prerequisite: permission

ART 234 Art and Architecture in Europe (3, M06)
Approximately 20 days studying the art and artists from antiquity to the present. Readings, journal-keeping, and questions pertaining to site-specific works are requirements. Course is intended for the art major and liberal arts exploration credit may also be granted.

ART 237 Modern Art History (3, F04)
History of Western art from the mid-18th century through the 19th and early 20th centuries. Analysis of major movements and artists, their underlying philosophy and cultural influences.

ART 314 The Art and History of Film (3, F)
An introduction to the history, craft, theory, and critical content of film; 15 films viewed in class, 20-25 outside of class research work.

ART 322 Contemporary Art & Critical Theory (3, S05)
Introduction and discussion of influences and developments at work in the world of contemporary art, including pop, minimalism, and performance art. Multicultural and post-modernist ideas and the role of art critics in shaping dialogue will also be considered.

Senior Capstone

ART 485 Senior Seminar and Concentration (2, F)
Practical experience in organizing an exhibition, preparing a body of work for portfolio documentation, and written documentation through formal thesis statement. A variety of readings, discussion, studio work, and critique comprise the course atmosphere. Required of all senior art majors during the fall semester.

ART 486 Senior Concentration and Thesis (2, S)
Advanced study in chosen area of studio concentration with interdisciplinary critiques including all senior art majors. Emphasis on development of a quality body of work for exhibition and formal documentation through written thesis. Required of all senior art majors in the spring semester. This course is repeatable for extra studio emphasis.

BIBLE (major and minor)

Department of Religion and Philosophy: J. Michael Walters, chair

Faculty: Richard Eckley, Harold Kingdon, Kristina LaCelle-Peterson, Terence Paige, Carl Schultz, Paul Shea

Bible (BA/BS): (27 hours in the major; 3 in pre/co-requisites)

A major in **Bible** is recommended for those expecting to become missionaries, teachers of Biblical studies, or leaders in para-church ministries.

Required courses for the major but without major credit:	
BIBL 101 Biblical Literature	3
Major required courses:	
BIBL 221 Biblical Interpretation	3
BIBL 231 Pentateuch	3
BIBL 233 Life of Christ	3
At least one Old Testament	3
At least one New Testament	3
BIBL prefix 211 or above	6
BIBL 482 Senior Capstone: Senior Seminar	3
One theology course from the following	3
THEL 313 Systematic Theology or	
THEL 351 Biblical Theology: Old Testament or	
THEL 352 Biblical Theology: New Testament	
Total:	27

Minor: (12 hours in Bible, numbered 200 or above)

Course Descriptions

BIBL 101 Biblical Literature (3, F&S & May)
Survey of the types of literature found in the Bible. Considers the origin of the Biblical texts and canon; basic issues of interpretation (hermeneutics); and an outline of the history of Israel and of the New Testament church as a backdrop for the message. Literary, historical, and theological aspects of selected texts will be explored. **This is a prerequisite for all Bible courses and THEL 209.**

BIBL 221 Biblical Interpretation (3, F)
Development of Scripture interpretation within the Judeo-Christian tradition, noting both general and specific principles which will, in turn, be applied to issues of current concern.

BIBL 231 Pentateuch (3, S)
Analysis of critical and historical background, literary content, and development of the religion of Israel. Relevancy of contents.

BIBL 233 Life of Christ (3)
Jesus' life and teaching, with emphasis on his eschatology and ethics; the theological distinctives of the gospel writers; and consideration of some critical issues in interpretation. Focus is mainly on the synoptic gospels.

BIBL 251 Bible History and Geography (3, OD)
Study of the history of the Jewish people and surrounding civilizations. Old and New Testament backgrounds. Intensive study of the geography of the Holy Land. No IS credit.

BIBL 261 Holy Land Tour (2/3, OD)
Through visits to cultural, historical, and archaeological sites in Israel, Biblical history and geography will be elucidated. Visits will be preceded by lectures and the reading of preparatory materials and followed by lectures and discussions. No IS credit.

BIBL 303 Old Testament Historical Books (3, F)
Study of the 12 Books of History, including Joshua through Esther. Integrates critical, analytical, and devotional approaches, and combines inductive and lecture methods.

BIBL 310 Old Testament Prophets I (3, F)
Historical background, biographical data, critical problems, and contents of Isaiah, Jeremiah, and six minor prophets preceding the Babylonian captivity. Relevancy of messages.

BIBL 312 Old Testament Prophets II (3, S)
Historical background, biographical data, critical problems, and contents of Ezekiel, Daniel, and six minor prophets largely during and following the Babylonian captivity. Relevancy of messages.

BIBL 321 Poetic Books (3, OD)
Consideration of the structure and contents of Hebrew poetry and wisdom literature with a comparative study of similar genre of literature in the Near East.

BIBL 331 Early Pauline Epistles (3, F)
The epistles of Paul's major missionary travels: the Thessalonian, Corinthian, Galatian, and Roman letters. Background, contents, analysis of key passages.

BIBL 333 Later Pauline Epistles (3, S)
Paul's prison epistles and pastoral epistles. Analysis of each book; exposition of great passages.

BIBL 335 General Epistles (3, S)
Historical and exegetical treatment of the books of Hebrews, James, 1 and 2 Peter, and Jude, focusing on key passages, theology, and problems of interpretation and application.

BIBL 337 Gospel and Epistles of John (3, OD)
John's gospel and epistles analyzed from a literary and theological perspective, with attention also to historical questions and to the nature of the Johannine community.

BIBL 341 Missions in Biblical and Theological Perspective (3, S05)
An examination of the biblical foundations of missions. The course will explore the extensive Old Testament roots of missions and the New Testament development. It will build a biblical view of culture, worldview, the nature and function of the church, and other relevant topics. Attention will be paid to the application of appropriate principles of biblical theology, exegesis, hermeneutics, and contextualization and to the development of a diachronic approach to scripture. No IS credit.

BIBL 351 Daniel/Revelation (3, May)
A study of the nature of apocalyptic literature, critical problems, and various systems of interpretation.

BIBL 361 Job (3, S)
Historical, doctrinal, and cultural study of the book; special attention to the problem of human suffering, the afterlife in the Old Testament, and the concept that success indicates divine favor.

- BIBL 363 Dead Sea Scrolls** (3, OD)
Study of their discovery, their contents, their importance, their contribution to textual criticism and their influence on Judaism and Christianity; attention given to the community from which they came.
- BIBL 371 Book of Acts** (3, OD)
Study of the struggles and growth of the early church through in-depth analysis and discussion, with opportunity for contemporary application; lectures, group discussions, and student presentations.
- BIBL 395 Special Topics in Bible** (3, OD)
Study of select blocks or groups of scripture related to a particular topic or theme.
- BIBL 410 Isaiah** (3, OD)
A study of the historical, critical, and contextual issues, with an emphasis on a vital faith to our generation.
- BIBL 412 Jeremiah** (3, OD)
Historical, cultural background, structure and contents of Jeremiah will be studied. Attention given to Jeremiah's influence on his contemporaries and the relevance of his message for our time.
- BIBL 453 1 Corinthians** (3, OD)
An intensive study of the literary structure, the historical setting, and the theology of 1 Corinthians. Prerequisites: BIBL 221 Biblical Interpretation, and at least one other upper level Bible course, or permission of the instructor.
- BIBL 482 Senior Capstone: Senior Seminar in Bible** (3, S)
A discussion course focused on individual student projects addressing themes, issues, or problems that bring together biblical material, the Christian tradition, and contemporary concerns. Required of all Bible majors.
- BIBL 191, -2; 291, -2; 391, -2; 491, -2 Independent Study** (1, 2, or 3)
- BIBL 496 Honors in Bible**

BIOLOGY, BA, BS (major and minor)

Department of Biology: James M. Wolfe, chair

Faculty: Alan Belford, Jacqueline M. Crisman, Matthew K. Pelletier, Aaron M. Sullivan, James M. Wolfe

Part-time: David Schwert

Biology, BS (26 hours in major; 8 prerequisites; 28 co-requisites)

Prerequisites (8):	
BIOL 151, 152 General Biology	8
Required (26) which must include:	
BIOL 251 Genetics	4
BIOL 281 Introduction to Research	1
BIOL 482 Senior Seminar	1
BIOL XXX Electives	20
Co-requisites (28):	
CHEM 151, 152 General Chemistry	8
CHEM 241, 242 Organic Chemistry	8
PHYS 101, 102 College Physics	8
MATH 181 Calculus I	4

Graduates from this major primarily enter graduate programs, some aspect of the health professions (allopathic medicine, osteopathic medicine, podiatry, optometry, dentistry, medical technology, physical therapy), veterinary medicine or environmental science.

Biology, BA (26 hours in major; 8 prerequisites; 8 co-requisites)

Prerequisites (8):	
BIOL 151, 152 General Biology	8
Required (26) which must include:	
BIOL 251 Genetics	4
BIOL 281 Introduction to Research	1
BIOL 482 Senior Capstone: Senior Seminar	1
BIOL XXX Electives	20
Co-requisites (8):	
CHEM 151, 152	8

Graduates from this program primarily enter the field of science teaching in secondary schools.

Environmental Programs

Environmental programs at Houghton take advantage of the college's location in the Allegheny Plateau (ranging in elevation from 1000 to 2500 feet), with access to forest, river, and lake ecosystems, and within a day's drive of the Adirondack Mountains (where Houghton now has a 40-acre campus and offers a semester-long program; see Off-Campus Programs-Adirondack Park) and the Atlantic Ocean. In addition, Houghton's 1300-acre campus has forest and field areas for study. The 91-acre Spring Lake preserve, incorporating an old growth forest and undeveloped kettle lake within eight miles of the campus, is available for environmental research.

Two Houghton programs emphasize Christian stewardship of the creation as well as environmental awareness and analysis. The BA/BS major in biology with environmental emphasis prepares students for careers in environmental education, research and analysis, and further study in graduate program. Field-oriented courses complement a strong biology background, including at least one course at AuSable Institute of Environmental Studies (see off-campus programs section), a center for Christian environmental stewardship. The environmental stewardship minor (see Environmental Science) for science and non-science majors provides background for responsible stewardship. Required courses include Environmental Earth Science, Local Flora or Wildlife Biology, Natural Resource Management, and Writing about Nature and the Environment. A senior seminar offers exposure to environmental leaders at the local, state, and national level.

For further information on the biology programs, contact Professor James Wolfe.

Biology with Environmental Emphasis, BA (26 hours in major; 15 co-requisites):

Required (26) which must include:

BIOL 251 Genetics	4
BIOL 281 Introduction to Research	1
BIOL 301 Field Botany	4
BIOL 322 General Ecology	4
BIOL 482 Senior Capstone: Senior Seminar	1
BIOL xxx At least one course with zoological emphasis	4

Field experience requirement fulfilled by:

- a) at least one biology course at the AuSable Institute of Environmental Studies (max. 8 hours), or
- b) field course (4) at another accredited institution, or
- c) significant intern or work experience

Co-requisites (15):

CHEM 151, 152	8
ESCI 101 Physical Geology	4
ESCI 212 Environmental Earth Science (offered on demand)	3

Recommended courses include the following:

SOC 309 Statistics	3
REC 401 National Resource Management	3

Biology with Environmental Emphasis, BS (26 hours in major; 35 co-requisites):

Required (26): see BA above

Co-requisites (35):

MATH 181 Calculus I	4
CHEM 151, 152 General Chemistry I, II	8
CHEM 241, 242 Organic Chemistry	8
ESCI 101 Physical Geology	4
ESCI 212 Environmental Earth Science (offered on demand)	3
PHYS 151, 152 General Physics I, II	8

Recommended courses: see BA above

The BA or BS in biology with environmental emphasis prepares students for careers in environmental education, analysis, and research. Students can take the New York State civil service exam for application as a conservation biologist to the NYS Department of Environmental Conservation.

Biologist (wildlife) (18 hours required)

BIOL 105 Conservation Biology (4)
BIOL 214 Wildlife Biology (3)
BIOL 364 Animal Ecology (4)
BIOL xxx Special Topics: Ornithology (4)
BIOL 211 Ecology of Alaska (4)
REC 401 Natural Resources Management (3)

Biologist (ecology) (18 hours required)

BIOL 151 General Biology (4)
BIOL 364 Animal Ecology (4)
BIOL 301 Field Botany (4)

BIOL 350 Forest Ecology (4)
BIOL xxx Special Topics: Limnology (4)
BIOL 211 Ecology of Alaska (4)
BIOL 220 Biological Oceanography (2)

Biology minor: (12 hours above BIOL 151, 152)

Course Descriptions

BIOL 103 Fundamentals of Biology (4, F&S)

Principles of biological structure and function, particularly as they relate to man. Fulfills the liberal arts laboratory science requirement for non-majors. Three lecture, three laboratory hours each week.

BIOL 105 Conservation Biology (4, S)

Principles of conservation biology including history of conservation, structure of aquatic and terrestrial ecosystems, endangered species and extinction, management, and Christian stewardship. Labs emphasize analysis of aquatic and terrestrial ecosystems. Three lectures, three laboratories each week.

BIOL 151, 152 General Biology (4/4, F/S)

Two-semester survey; preparation for advanced work. 151 includes cell biology, animal physiology, animal taxonomy, behavior, and development; 152 includes plant taxonomy and physiology, ecology, and genetics. Three lecture, 3 laboratory hours each week. Note: BIOL 151 or permission is prerequisite to BIOL 152. BIOL 151 and 152 are prerequisites for most biology courses above 200.

BIOL 207 or 212 Wildlife Behavior in East Africa (3 or 4, S)

(See course description in Off-Campus Programs - Tanzania section.)

BIOL 211 The Ecology of Alaska (3 or 4, Summer 05)

Study of Alaskan ecology through field experiences to Anchorage, Denali National Park, State Museum at Fairbanks, Tetlin Wildlife Refuge, Valdez, Kenai Fjords National Park, and Homer. Research paper on Alaska ecology and a daily journal required. Est. fee above tuition \$1500. Prerequisite: BIOL 152

BIOL 213, 225 Natural History of the Adirondacks (3 or 4, F)

(See course description in Off-Campus Programs - Adirondack Park section.)

BIOL 214 Wildlife Biology (3)

Study of North American wildlife with emphasis on vertebrate game animals. Topics include ecology, behavior, population dynamics, habitat development, conservation, and management. *May not be used toward the biology major or minor.*

BIOL 215 Local Flora and Vegetation (3, F)

Field identification of local ferns, shrubs, trees, and herbaceous flowering plants. Lecture covers broader vegetational ecosystems of North America. Small herbarium required. Two lecture, three laboratory hours each week. *May not be used toward the biology major or minor.*

BIOL 217 Human Anatomy and Physiology I (4, F)

Systematic study of structure and function of the human organism, including microanatomy of organs. General organization of the body, basic tissues, and the integumentary, skeletal, muscular, and nervous systems. Three lecture, three laboratory hours each week. *Does not count for major or minor credit except where required for graduate programs and upon permission of the department chair.*

BIOL 218 Human Anatomy and Physiology II (4, S)

Sequel to BIOL 217. Endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, reproductive systems; acid-base and fluid-electrolyte balance. Prerequisite: BIOL 217 or permission. Three lecture, three laboratory hours each week. Note: BIOL 217 and 218 are designed to fulfill the certification requirements for the physical education major and admission requirement for some schools of nursing and physical therapy. *Does not count for major or minor credit except where required for graduate programs and upon permission of the department chair.*

BIOL 220 Biological Oceanography (2, OD)

Laboratory adjacent to Acadia National Park, Maine. Course includes adaptations of marine organisms to the marine ecosystems, biogeochemical cycles, stewardship of the marine environment. Field trips include rocky intertidal, cobble and sandy beaches, salt marshes, open ocean ecosystems. Cost above tuition and lab fee: \$600.

BIOL 221 Plant Anatomy and Physiology (4, OD)

Study of the biochemistry, physiology, structure, reproduction and commercial uses of the green plants and fungi. Laboratory includes research project in plant biology. Three lecture, three lab hours weekly.

- BIOL 231 Comparative Vertebrate Anatomy** (4, F04)
Comparative study of vertebrate structure. Laboratory includes dissection and detailed study of representative vertebrates. Two lecture, six laboratory hours each week.
- BIOL 242 Microbiology** (4, S)
Survey of viruses, prokaryotic organisms, and fungi with theoretical and applied approaches to morphology, metabolism, genetics, biotechnology, and host-parasite relations. Three lectures, three laboratory hours each week. Prerequisite: CHEM 151 or permission
- BIOL 251 Genetics** (4, F)
Principles of inheritance in living organisms, including the modern concepts of "gene" action and DNA structure and function. Three lecture, three laboratory hours each week.
- BIOL 281 Introduction to Research** (1, F/S)
Introduction to biological research methods, selection and approval of a research topic, preparation of a comprehensive literature review, and submission of a formal written proposal. Required of all biology majors; recommended for junior year.
- BIOL 301 Field Botany** (4)
Introduction to taxonomy, systematics, and ecology of vascular plants. Course includes field trips throughout western New York and northwestern Pennsylvania; plant identification and classification; develop extensive herbarium. Two lecture, six laboratory hours each week.
- BIOL 315 Marine Biology** (4, S06)
Comprehensive study of marine ecosystems including the foundations of physical and chemical oceanography as they impact the ecology of marine organisms. Overview of the structure, physiology, and ecology of marine life from phytoplankton to whales. Labs cover the representative marine divisions (plants) and phyla (animals) and may include a field trip to the northeast Atlantic coast.
- BIOL 320 Limnology** (4, S05)
Introduction to freshwater aquatic ecosystems with emphasis on lakes. Includes the study of physical, chemical, and biological factors which influence ecosystem function and health. Lake management and conservation included. Labs cover field analysis of a local lake ecosystem culminating in a comprehensive report. Three lecture and three laboratory hours each week.
- BIOL 322 General Ecology** (4, F)
Study of the interrelationships among living organisms, their physical and biological environment, and human impacts. Laboratory introduction to ecological techniques and field studies of local and state ecosystems. Three lecture, three laboratory hours each week.
- BIOL 350 Forest Ecology** (4, Mayterm 06)
Study of forests and their interactions with physical, chemical, and biological factors in the context of ecosystems at the Star Lake Campus. Includes physiognomy, nutrient cycling, climatic factors, soils, fire and disturbance, succession, and harvesting and management. Lab includes forest mensuration and analysis and introduction to SILVAH. Three lecture, three laboratory hours each week. Prerequisites: BIOL 322 or 301.
- BIOL 361 Vertebrate Histology** (4, OD)
Microscopic anatomy of vertebrate tissues and organs. Two lecture, six laboratory hours each week.
- BIOL 364 Animal Ecology** (4, S05)
Focuses on the relationship between animals and their environments including basic principles, theory, applications, and Christian stewardship as applied to animal ecology. Lab is field oriented including telemetry and tracking, demographics, niche partitioning, foraging strategies, and habitat selection. Three lecture, three lab hours per week. Prerequisites: BIOL 151, 152 and 322
- BIOL 365 Immunology** (4, S05)
Theoretical and clinical approaches to study of innate and adaptive immune systems: antigen recognition, immune response, immune system, and its pathologies. Three lectures, three lab hours each week.
- BIOL 370 Molecular and Cell Biology** (4, F)
The course provides an introduction to the biochemistry of cells, transport across membranes, cell-to-cell signaling, organelle function, and protein targeting, with an emphasis on methods in molecular and cell biology. Three lecture hours and one three-hour lab per week. Labs will focus on molecular techniques such as cloning, PCR, generation and purification of recombinant proteins, and blotting techniques (DNA, RNA, and Protein). Prerequisite: BIOL 251
- BIOL 372 Comparative Animal Physiology** (4, F05)
General consideration of functional processes in animals with emphasis on the comparative aspects. Three lecture, three laboratory hours each week.

- BIOL 382 Developmental Biology** (4)
Study of morphogenesis and biochemical processes involved in development, with emphasis on vertebrates. Three lecture, three laboratory hours each week. Prerequisite: BIOL 251
- BIOL 195, 295, 395, 396 Special Topics** (1-4, F&S)
Courses designed to meet the individual needs of advanced students in such areas as medical terminology, and research in biology. Some of the courses include laboratory.
- BIOL 475 Environmental Stewardship Seminar** (1, OD)
The course focuses on examining environmental issues and problems in light of the Christian faith with the goal of developing a personal stewardship ethic. Beginning with local environmental problems, and then moving to global issues and ethics. Outside speakers from the larger community, including representatives from the NYDEC, the Nature Conservancy, and local politicians.
- BIOL 480 General Science Seminar** (1, S)
Written thesis and oral presentation on a topic selected for interdisciplinary breadth describing current scientific research in the area of the student's concentration, based on a thorough review of scientific literature.
- BIOL 482 Senior Capstone: Senior Seminar** (1, S)
Discussions on history of biological science, ethical problems in biology and health related issues, and environmental issues. Required of all biology majors during their final spring semester. Open only to majors.
- BIOL 391, -2; 491, -2 Independent Study** (1, 2, or 3)
Research under the supervision of a biology department faculty member. Total 5 credits.
- BIOL 496 Honors in Biology** (3)
PRPR 202A **Premedical-Pre dental Practicum (P/U)** (3, May)
Observation and practical experience with physician or dentist on a one-to-one basis. Preparation and sharing of experiences on the Houghton campus. Open only to serious medical or dental school candidates.

BUSINESS ADMINISTRATION (major and minor)

Department of Business and Economics: Kenneth Bates, chair
Faculty: Stephen B. Alderman, Kenneth J. Bates, Robert A. Black, Jonathan E. Bradshaw, Richard A. Halberg, Jeffrey R. Moore

Website and e-mail: www.businessathoughton.com, business@houghton.edu

Mission: To develop Christ- like scholar-servants to serve the people and manage the resources of corporations, small businesses, not-for-profit organizations, and churches.

Major (BS): (34 hours; 8 in pre-co-requisites)..

Courses for major but without major credit:			
BADM 140	Business Software Applications	2	
ECON 210, 211	Principles of Micro and Macroeconomics		3, 3
	Prerequisite total:	8	
Major core courses:			
ACCT 211, 212	Financial and Managerial Accounting	6	
BADM 212	Principles of Management	3	
BADM 213	Business Law I	3	
BADM 218	Marketing Principles	3	
BADM 309	Statistics	3	
BADM 406	Financial Management	3	
BADM 417	Business Strategy and Policy	3	
BADM 481	Senior Capstone: Senior Seminar	1	
	Total:	25	
Elective major credit courses:			
	Business, accounting, or economics		
	courses numbered 200 or above	9	
	Total:	42	

Elective hours may be used to develop a concentration in any of the following six areas with the required courses as indicated.

- Management (any 2):
 - BADM 301 Business Communication
 - BADM 314 Human Resources Management
 - BADM 317 Management Information Systems
 - BADM 320 Leadership Development
 - BADM 330 Operations Management
- Marketing (2):
 - BADM 312 Advertising Principles **and**
 - BADM 301 Business Communication **or**
 - BADM 319 Marketing Research **or**
 - BADM 340 eCommerce
- Finance (2):
 - BADM 302 Investment Management
 - ECON 301 Money and Banking
- Economics (2):
 - ECON 212 International Economics
 - ECON 301 Money and Banking
 - ECON 315 Managerial Economics
- International Business:
 - IBI 331, 339, 350, 390 International Business Institute **or**
 - ECON 212 International Economics
 - BADM 313 International Business
 - an approved cross-cultural experience
- International Economics (2):
 - ECON 212 International Economics
 - ECON 237 Comparative Economics

Minor: A minor in business administration requires the following courses in addition to Business Software Applications (BADM 140) and Principles of Micro or Macroeconomics (ECON 210 or 211).

Required:

ACCT 211 Financial Accounting	3
BADM 212 Principles of Management	3
Plus 6 hours in business courses numbered 200 or above	6

Computer Use Competency Requirements

All students majoring in any program of the Department of Business & Economics must meet a set of computer use competency requirements. Spreadsheet competency is also a prerequisite for certain courses such as ACCT 211 *Financial Accounting*, ACCT 212 *Managerial Accounting*, BADM 309 *Statistics*, BADM 406 *Financial Management*, and BADM 417 *Business Strategy & Policy*. The required competency areas are in spreadsheets, presentation software, and database software. These may be demonstrated in a number of ways. The ways in which you may document your competencies are:

1. Satisfactory completion of a college-level course (at Houghton College or elsewhere), a major portion of which is the development of these competencies. At Houghton College BADM 140 *Business Software Applications* meets this requirement.
2. Satisfactory completion of a non-college level training course in the use of such software, which requires at least eight hours of instruction in each area and is evidenced by a certificate or other written documentation, copies of which must be provided to Houghton College.
3. Satisfactory completion of the Houghton College competency examination on the use of these software applications. A sample exam is available for those who wish to pursue this option. (This option is recommended for part-time students and others for whom registration for BADM140 *Business Software Applications* would require an additional tuition charge.)
4. A letter on company letterhead from your employer attesting to your proficiency with Microsoft Excel® in the specific areas and topics covered in BADM140 *Business Software Applications*.

Course Descriptions

BADM 103 Introduction to Business (3, F05)
Business operation, terminology, practices, and career opportunities. This is a survey course that is designed to give those interested in the business discipline an overview of what business is all about.

BADM 140 Business Software Applications (2, F&S)
Development of Microsoft Office skills in Excel, Access, and PowerPoint. Students will learn how to use their skills in solving real business problems.

BADM 145 Website Development (1, F&S)
Introduction to hosting/managing a Website as well as developing Web pages using Microsoft

FrontPage. Students will work in a team to complete a service-learning project.

ACCT 211 Financial Accounting (3, F&S)
(See description under accounting section.)

ACCT 212 Managerial Accounting (3, F&S)
(See description under accounting section.)

BADM 212 Principles of Management (CDRP, see Foreign Languages) (3, F&S)
Familiarizes students with the knowledge, roles, responsibilities, and skills required of new managers. Special attention is given to managerial decision-making, problem-solving, information, and human resources issues.

BADM 213 Business Law I (3, F)
Basic law covering contracts, agency, bailments, and negotiable instruments.

BADM 214 Business Law II (3, S05)
Basic law covering forms of business organization, sales, estates, bankruptcy. Prerequisite: BADM 213

BADM 218 Marketing Principles (CDRP, see Foreign Language) (3, S)
Factors in product development, pricing, distribution, and promotion of consumer and industrial goods.

BADM 301 Business Communication (3, F04)
Techniques and practices in business writing and oral communication. Prerequisite: BADM 212.

BADM 302 Investment Management (3, S)
A study of stocks, bonds, mutual funds, commodities, real estate, investment analysis, and portfolio theory. Prerequisite: ACCT 211, 212 or permission

BADM 303 Entrepreneurship (3, F)
A study of entrepreneurship identifying an industry niche and the basics of starting and running a small business. Special emphasis given to business plan development.

BADM 309 Statistics (3, F&S)
Basic statistical methods such as graphs, probability, sampling, hypothesis testing, regression, correlation. Theory useful in research and interpretation of data. Prerequisite: BADM 140

BADM 312 Advertising Principles (3, F)
(See description under the Communication major, COMM 312.) Prerequisite: BADM 218

BADM 313 International Business (CDRP, see Foreign Languages) (3, S06)
An examination of the variations in business management and practices in developed and less developed countries around the world. Prerequisites: BADM 212, ECON 110, or permission

BADM 314 Human Resources Management (CDRP, see Foreign Languages) (3, S)
Personnel functions, relationships, employee selection, testing, training, and incentives. Prerequisite: BADM 212

BADM 317 Management Information Systems (3, S05)
Design, maintenance, monitoring of information systems. Includes systems and audit concepts. Prerequisites: BADM 140, ACCT 211, 212.

BADM 319 Marketing Research (3, S04)
Study of the techniques used in collection and analysis of secondary and primary data and use of that format for decision-making in marketing environment. Student teams work on real business marketing research projects. Prerequisites: BADM 309, BADM 218

BADM 320 Leadership Development (3, S)
A study of the principles of leadership found in biblical leaders, throughout history, and in our own lives. Designed as an interdisciplinary course, specifically to help guide personal understanding both of leadership responsibilities and leadership abilities. It is not intended only for individuals who aspire to positions of leadership or just for those who think they have what are normally considered "leadership" abilities. It is intended for anyone seeking to understand how to better be able to influence others for good, regardless of their profession, position, gifts, or calling.

BADM 330 Operations Management (3, F05)
Management of processes or systems that create goods or provide services. Includes the basics of forecasting, capacity planning, scheduling, inventory management, total quality management, and supply chain management. Prerequisite: ACCT 212, MATH 107 or higher, BADM 140

BADM 340 eCommerce (3, S05)
A cutting-edge course designed to give you exposure, understanding, and know-how in the ways the

Internet is transforming and facilitating key functions of business. Exploration of the organizations that have succeeded and those that have failed. Understanding the eCommerce strategies companies employ. Covers the technological features that make eCommerce both possible and challenging. Implications in computer science, accounting, marketing, management, human resources, finance, economics, and international business. Prerequisite: BADM 145 or permission.

BADM 406 Financial Management (3, F)
Financial analysis, budgeting, working capital management, capital budgeting, sources of financing, cost of capital. Prerequisite: spreadsheet competency, ECON 110, ACCT 211, 212 or permission

BADM 417 Business Strategy & Policy (CDRP, see Foreign Languages) (3, F)
Integrates social responsibility and ethics with instruction in the strategic planning process. Ethical core values act as guidelines for development of organizational plans. (Seniors only, except by permission.) Prerequisite: spreadsheet competency

BADM 421 Internship in Business (6, F; 3, S)
Supervised experience in a business firm combining practical activities with integrating studies. By application only. (Spring offering is for two days a week only.)

BADM 431 Endowment Management (.5, F&S)
An advanced investment course in which students who have excelled in business, economics, and/or accounting courses manage a portion of the Houghton College stock portfolio under faculty supervision. By application only. This course may be taken multiple semesters for a maximum of two (2) credit hours toward graduation.

BADM 481 Senior Capstone: Senior Seminar (1 or 2, S)
Exploration of current issues faced by management. Required of all senior business administration and accounting majors.

BADM 191, -2; 291, -2; 391, -2; 491, -2 Independent Study (1, 2 or 3)

BADM 295, 395, 495 Special Topics (1,2,3, or 4)

BADM 496 Honors in Business (3, S)

CHEMISTRY (major and minor)

Department of Chemistry: Irmgard Howard, chair

Faculty: Larry Christensen, Irmgard Howard, Mengyang Li **Part-time:** David Schwert

Major BS: (41 hours in the major, 19 in co-requisites)

Major BA: (35 hours in the major, 19 in co-requisites)

Major (BS): The major in chemistry designed for preparation for professional employment or for graduate work culminates in the bachelor of science in chemistry.

Required courses:

CHEM 151, 152 General Chemistry	8
CHEM 241, 242 Organic Chemistry	8
CHEM 277 Analytical Chemistry	4
CHEM 278 Chemical Instrumentation in Research	4
CHEM 286 Special Topics	2
CHEM 361, 362 Physical Chemistry	8
CHEM 482 Senior Capstone: Chemistry Seminar	1

Additional 6 hours in chemistry selected from courses numbered above 300, including no more than 3 hours in Research in Chemistry and honors.

Co-requisites:

PHYS 151, 152 General Physics	8
MATH 181, 182 Calculus I/II	8
MATH 241 Differential Equations or	
MATH 321 Multivariate Calculus	3

Recommended:

MATH 321 Multivariate Calculus	3
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Major (BA): The major in chemistry designed for preparation for medical school or for secondary teaching culminates in the bachelor of arts in chemistry.

Required courses:

CHEM 151, 152 General Chemistry	8
CHEM 241, 242 Organic Chemistry	8

CHEM 277 Analytical Chemistry	4
CHEM 278 Chemical Instrumentation in Research	4
CHEM 286 Special Topics	2
CHEM 361, 362 Physical Chemistry	8
CHEM 482 Senior Capstone: Chemistry Seminar	1
Co-requisites:	
PHYS 151, 152 General Physics	8
MATH 181, 182 Calculus I/II	8
MATH 241 Differential Equations or	
MATH 321 Multivariate Calculus	3

Minor: (12 hours above 152)

These hours may be taken in one of two ways: Organic Chemistry (CHEM 241, 242), and Analytical Chemistry (CHEM 277), or Organic Chemistry (CHEM 241, 242), Biochemistry (CHEM 332), and Bioanalytical Laboratory (CHEM 334).

Course Descriptions

CHEM 113 Elements of Biochemistry (4, OD)

Forms and functions of chemicals in life. Fundamentals of inorganic, organic, and biological chemistry with contemporary applications. Fulfills the liberal arts laboratory science requirement for non-science majors. Also designed for pre-nursing students. Three lecture, three laboratory hours per week.

CHEM 121 Impact: Science on Society (3, S)

Interrelationships between science, modern society, and Christianity. Nature and limitations of science. Political and social decisions with a scientific component. In-depth analysis of several areas where science plays a critical role in contemporary life. Fulfills the three-hour integrative studies science requirement.

CHEM 151 General Chemistry I (4, F)

Theories and principles of modern chemistry: stoichiometry, atomic theory and structure, bonding, properties of matter, descriptive chemistry of some important elements. Laboratory devoted to synthesis, analysis, and experiments based upon principles developed in lecture. Three lecture, three laboratory hours per week.

CHEM 152 General Chemistry II (4, S)

Continuation of CHEM 151; description and control of chemical reactions (equilibrium, thermodynamics, kinetics, electrochemistry, etc.) Laboratory devoted to qualitative analysis or student-designed research projects. Three lecture, three laboratory hours per week.

CHEM 207 Introduction to Nutrition (3, F&S)

Digestion, metabolism, nutrition of normal individuals. Essentials of adequate diets and food sources of nutrients; nutritional comparison of food in relation to normal and modified diets.

CHEM 208 Intro to Nutrition Laboratory (1, F)

This laboratory is designed to parallel the structure of CHEM 207, demonstrating at a hands-on level the components, concepts, and stewardship of contemporary nutrition. Three lab hours per week.

CHEM 221 Contemporary Organic Chemistry (4, OD)

For pre-nursing, pre-medical technology, BA biology, and general science majors. Fundamentals of organic chemistry; emphasis on structure, reactions, properties of organic molecules. Three lecture, three laboratory hours per week. Prerequisite: CHEM 151 or CHEM 113

CHEM 241, 242 Organic Chemistry (4/4, F/S)

Modern organic chemistry: relationships between organic molecular structure and chemical reactivity; mechanisms of molecular transformations; synthesis and spectroscopy. Three lecture, four laboratory hours per week. (CHEM 241 must precede 242.) Prerequisite: CHEM 152

CHEM 277 Analytical Chemistry (4, F)

Principles of gravimetric, volumetric, and electroanalytical methods of analysis. Acid base, precipitation, complexometric, redox titrimetry. Quantitative methods based on absorption of radiation. Statistical treatment of data. Laboratory: analysis of unknown samples. Two lecture, eight laboratory hours per week. Prerequisite: CHEM 152

CHEM 278 Chemical Instrumentation in Research (4, S)

Instrumental methods of analysis. Principles and application of various types of spectroscopy (including UV-VIS, IR, NMR), atomic absorption and emission, mass spectrometry, thermal and electrochemical methods of analysis, etc. Three lecture, four laboratory hours per week. Prerequisite: CHEM 277

- CHEM 286 Special Topics in Chemistry** (2, F)
An introduction to areas of chemistry not treated in other courses. Topics will vary yearly; consult the department for the topic offered in any given year. Prerequisite: CHEM 241
- CHEM 291, 292 Research in Chemistry** (1-3)
- CHEM 332 Biochemistry** (3, S05)
Structures, functions, and metabolic relationships of representative compounds involved in life processes; brief introduction to enzymology, inborn errors, regulation of metabolism, nutritional implications, clinical applications. Prerequisite: CHEM 221 or CHEM 241
- CHEM 334 Bioanalytical Laboratory** (1, S05)
The practice of analytical chemistry as applied to biochemical systems. Qualitative and quantitative laboratory experience in gravimetric, volumetric, potentiometric, and spectrometric techniques.
- CHEM 343 Advanced Organic Chemistry** (3, F04)
Theoretical and physical organic chemistry. Interrelationship of structure and reactivity; dynamics of organic reactions; methods of synthesis; current topics of special importance to organic chemistry and introduction to current original publications in organic chemistry.
- CHEM 361, 362 Physical Chemistry** (4/4, F/S)
Theoretical aspects of principles of chemistry: derivation and application, with emphasis on thermodynamics, kinetics, and molecular structure. Practical applications in laboratory. Three lecture, four laboratory hours per week. (CHEM 361 must precede CHEM 362.) Prerequisites: PHYS 151, 152; CHEM 242, 277, 278 (may be taken without 278, if not taken for major credit); MATH 241 or MATH 321
- CHEM 453 Advanced Inorganic Chemistry** (3, OD)
Theories of atomic and molecular structure, bonding; emphasis on organometallic chemistry; descriptive chemistry of the elements; current topics of special importance. Prerequisite: CHEM 277
- CHEM 480 General Science Seminar** (1, S)
Written thesis and oral presentation on a topic selected for interdisciplinary breadth describing current scientific research in the area of the student's concentration, based on a thorough review of scientific literature.
- CHEM 482 Senior Capstone: Chemistry Seminar** (1, S)
Journal reports and discussion of recent developments in chemistry. Required of all chemistry majors.
- CHEM 291, 292, 391, 392; 491, 492 Research in Chemistry** (1-3, Arr)
- CHEM 496 Honors in Chemistry** (3)

CHRISTIAN EDUCATION (see Educational Ministries)

CHRISTIAN MINISTRIES (AAS) (Also, see ministry)

Department of Religion and Philosophy: J. Michael Walters, chair

Faculty: Under the direction of the department chair

The Christian ministries curriculum is a two-year program which leads to the associate of applied science degree. The course requires a total of 62 hours and provides a strong Bible-centered preparation for Christian service in the church or mission field.

The curriculum consists of 22 hours in integrative studies requirements, 25 hours in required religion courses, and a 12- to 16-hour concentration in communication, religion, educational ministries, or applied social science. Additional credit hours to total 62 will consist of electives.

The integrative studies requirements include three hours each of Bible (Biblical Literature), math or science, principles of writing, social science, philosophy, and theology.

The required religion courses are:

6 hours of Bible: Old Testament

6 hours of Bible: New Testament

3 hours of missions

6 hours of educational ministries

4 hours of internship

(See respective course descriptions in Bible, Missions, and Educational Ministry.)

Course Description

CHMN 251, 252 Internship

(2/2, F/S)

A field experience in a church or a church-related organization during the student's second year or during Mayterm.

COMMUNICATION (major and minor)

Department of English and Communication: Douglas Gaerte, chair

Faculty: Bruce Brenneman, Douglas Gaerte, Roger Rozendal

Major: (33 hours)

Whether one seeks a career in broadcasting, journalism, public relations, advertising, government service, law, business, teaching, or the ministry, the ability to communicate is essential. The communication major is an interdisciplinary program in the composition and rhetoric of oral and written discourse, examined theoretically and in various practical contexts.

Required courses: 18

COMM 205 Introduction to Communication Theory

COMM 210 Public Speaking

(also satisfies the integrative studies communication requirement)

WRIT 212 Advanced Composition: Rhetorical Patterns

COMM 316 Rhetorical Strategy

COMM 315 Interpersonal Communication

COMM 417 Seminar in Public Communication

Additional electives from: 15

COMM 214 Introduction to Mass Media

COMM 216 Organizational Communication

COMM 217 Debate

COMM 219 Oral Interpretation

COMM 244 Readers Theatre

COMM 245 Theater Arts

COMM 251, 351 Television Programming and Production I, II

COMM 252 Radio Programming and Performance

COMM 312 Advertising Principles

COMM 313 Public Relations Principles

COMM 314 Copywriting

COMM 320 Special Topics in Communication

COMM 325 Cross-Cultural Communication

COMM 330 Conflict Management

COMM 350 Broadcast Journalism

COMM 291, 391 or 491 Independent Study in Communication

WRIT 303 Periodical Writing

WRIT 306 Creative Nonfiction: Writing about Nature, Landscape, etc.

WRIT 307 Creative Nonfiction: Writing about Spiritual Experience

WRIT 308 Creative Nonfiction: Writing about Cultural Issues

(Note: Students who anticipate participating in an off-campus cross-cultural experience must coordinate the trip with respect to major requirements. For example, students planning to participate in Houghton-in-London during the fall of their senior year must take COMM 315 Seminar in Interpersonal Communication in the fall of their junior year.

Minor: (15 hours)

These hours include Introduction to Communication Theory (COMM 205) and Public Speaking (COMM 210). Nine additional hours are selected from any of the communication courses listed above under the major or WRIT 212, 303, 306, 307, or 308.

Communication Minor: Theater Emphasis (15 hours)

This is designed for students interested in the performing arts. This cross-disciplinary minor is intended to provide the student with experience in a variety of dramatic formats. The minor may only be taken by contract with the English and Communication Department chair. Required courses are Public Speaking (COMM 210), Oral Interpretation (COMM 219), Theater Arts (COMM 245), and Readers Theater (COMM 244). One additional option (selected by contract agreement) might be Creative Dramatics (EDUC 310), Opera Workshop (MUS 353), Modern Drama (ENGL 315), or Shakespeare (ENGL 413). Strongly recommended in addition to the above 15 hours is an individualized project (such as assistant director of a college production) listed under Theater Workshop (COMM 246) or Independent Study (COMM 291). *Note: Only eight hours of Theater Workshop may count toward graduation.*

Course Descriptions

- COMM 101 Fundamentals of Speech** (2, F&S)
Studies in the basic concepts of effective communication. Emphases on presentational speaking skills, organization of information, use of evidence, and audience analysis. Deliver demonstrative, informational, and persuasive speeches. Satisfies Integrative Studies speech requirement.
- COMM 205 Introduction to Communication Theory** (3, S)
This course provides a foundation for subsequent communication courses by introducing the major theories that help to explain human communication behavior. The course encourages students to see theorizing as both a formal, systematic approach to learning and as an informal activity in which we all engage. Through practical application, the course emphasizes the understanding, evaluation, and use of communication theories in daily life.
- COMM 210 Public Speaking** (3, F&S)
The preparation and delivery of various kinds of public speeches such as the informative speech, the special event speech, the demonstration speech, the ceremonial occasion speech, the problem solving presentation and the argumentative speech. Emphases on content, structure, and delivery. Satisfies the first level Integrative Studies speech requirement.
- WRIT 212 Advanced Composition: Rhetorical Patterns** (3, F&S)
(See course description under writing major.)
- COMM 214 Introduction to Mass Media** (3, F)
Overview of the mass communication process and its application to mass media. Considers history, technological development, social implications, business functions, and legal aspects of mass media.
- COMM 216 Organizational Communication** (3, F&S)
Development of communication skills applicable within organizations: understanding communication channels, interviewing strategies, task-oriented groups, business and sales presentations, conducting effective meetings, conflict management. Satisfies the Integrative Studies speech requirement.
- COMM 217 Debate** (3, S)
A performance course in competitive debating. Emphasis on evidence and reasoning, affirmative and negative case construction, refutation and rebuttal, cross-examination and extemporaneous delivery. Lincoln-Douglas formats. Recommended for communication, religion, sociology, political and business administrative majors.
- COMM 219 Oral Interpretation** (3, F)
Workshop in oral interpretation of literature. Emphasis on the selection and analysis of a literary work in preparation for presentation. Development of vocal skills for reading texts in a variety of literary genres.
- COMM 244 Readers Theater** (3, S)
An introduction to the dramatic format called Readers Theater. Emphasis on the analysis of literature and its adaptation into a form that can be presented by a group of readers. Literature formats include prose, poetry, scripture, and children's lit. Development of performance skills.
- COMM 245 Theatre Arts** (3, S)
Beginning acting, basic mime, introduction to stage techniques. Opportunity for practical experience in class production. Brief survey of Western theatre.
- COMM 246 Theatre Workshop** (1 or 2, F&S)
Practical work on major productions. Credit given according to degree of responsibility and amount of time spent on specific tasks. For advanced students. Instructor's permission required. Note: repeatable up to 8 hours.
- COMM 251 Television Programming and Production I** (3, F)
A workshop designed to develop an understanding of basic television production and the programming of entertainment, news, and advertising.
- COMM 252 Radio Programming and Performance** (3, OD)
Principles and practice of programming and performance within various formats. Considers social and business/ratings implications of programming. Requires weekly on-air shift on college radio station.
- COMM 312 Advertising Principles** (3, S)
Overview of the advertising field and how it functions in society. Studies research, strategies, methods, creativity, and media planning. Typically includes case study.
- COMM 313 Public Relations Principles** (3, F)
Brief overview of the public relations field and how it functions in society. Considers public relations to

be a communication management function. Proceeds to study research, strategies, methods, and relationships with various publics.

COMM 314 Copywriting(3, F)

Principles of copywriting including various strategies used for creating commercial copy. Includes writing radio and television commercials and public service announcements, newspaper and magazine headlines and body copy, institutional advertisements, press releases, direct mail, and others. Typically includes a service learning component - writing copy for area organizations and businesses.

COMM 315 Interpersonal Communication

(3, F)

Principles, application of interpersonal skills in the context of friendships and families. Includes personal and relational awareness, person perception, verbal and nonverbal communication, relational development, and gender communication.

COMM 316 Rhetorical Strategy

(3, S)

The preparation and delivery of various kinds of problem-solving presentations including problem analysis, policy justification, policy rejection, and hostile audience. Emphasis on content, structure, and delivery. Prerequisite: COMM 210 plus junior or senior status.

COMM 320 Special Topics in Communication

(2 or 3, F&S)

Opportunity for study of issues and problems not covered elsewhere in the curriculum.

COMM 325 Cross-Cultural Communication

(3, F)

Theory and practice in communication across cultural boundaries. Recommended for those with an interest in international vocations.

COMM 330 Conflict Management

(3, S)

An introduction to conflict management that balances coverage of major theories with practice in communication skills and conflict intervention techniques (e.g., assertiveness training, mediation, negotiation). Focus on experiential learning, with heavy emphasis on written analysis that includes analytical journaling and analysis of scientific journal articles.

COMM 350 Broadcast Journalism

(3, OD)

Advanced course in radio and television journalism: writing, announcing, production techniques in intensive workshop experience. Students are strongly encouraged to take COMM 251 prior to this course.

COMM 351 Television Programming and Production II

(3, F)

See course description above for COMM 251. Instructor's permission required.

COMM 353 Communication Internship

(1-3, F, S, Summer)

Experience in an applied communication field. Program tailored to individual student's needs and interests.

COMM 417 Seminar in Public Communication

(3, S)

Analysis of specific public communication situations, such as social reform movements, political discourse, campaign rhetoric, war rhetoric, the documentary, and the role of media in shaping discourse in contemporary society. Prerequisite: COMM 205.

COMM 291, -2, 391, -2, 491, -2 Independent Study

(1, 2, or 3, F&S)

COMM 496 Honors in Communication

(3, S)

WRIT 303 Periodical Writing

(3, S)

(See course description under writing major.)

WRIT 306 Creative Nonfiction: Writing about Nature, Landscape, and the Environment

(3, S)

(See course description under writing major.)

WRIT 307 Creative Nonfiction: Writing about Spiritual Experience

(3, F)

(See course description under writing major.)

WRIT 308 Creative Nonfiction: Writing about Cultural Issues

(3, F)

(See course description under writing major.)

COMPUTATIONAL PHYSICS (major)

Department of Physics and Earth Science: Mark Yuly, chair

Faculty: Ronald Rohe, Mark Yuly

Computational Physics Major (BS): (30 hours in major; 16 in prerequisites; 10 in co-requisites)

General Information: Traditionally, the study of physics has been divided into two areas: *experimental physics*, which deals with the design of experiments and measurement, and *theoretical physics*, which deals with theoretical models and predictions. More recently a third area has gained importance, namely, *computational physics*, which involves the use of computers in modeling and analyzing complex systems. This major is available to those students interested in studying physics with an emphasis on the use of computers. It provides students with highly sought-after computer and problem solving skills in a growing area of interdisciplinary study.

The requirements for the computational physics major are as follows:

Prerequisites (16):

PHYS 151,152	General Physics I, II	8
MATH181,182	Calculus I, II	8

Required (30) which must include:

PHYS 251	Mechanics I	3
PHYS 212	Modern Physics	3
PHYS 353	Electricity and Magnetism I	3
PHYS 355	Thermal Physics	3
PHYS 471,472	Physics Project Lab	2
PHYS 482	Senior Capstone: Physics Seminar	1
CSCI 211	Programming I	3
CSCI 218	Programming II	3
CSCI 236	Data Structures and Algorithms	3
MATH 331	Numerical Analysis	3

One advanced theory course selected from:

PHYS 352	Mechanics II	3
PHYS 354	Electricity and Magnetism II	3
PHYS 356	Quantum Mechanics	3

Co-requisites (10):

MATH 241	Differential Equations	3
MATH 321	Multivariate Calculus	3
MATH 261	Linear Algebra	4

Additional recommended supporting courses include:

PHYS 258	Analog Electronics	4
PHYS 259	Digital Electronics	4
CSCI 226	Computer Architecture	3
CSCI 245	Software Engineering	3

COMPUTER SCIENCE (major and minor)

Department of Mathematics and Computer Science: Richard Jacobson, chair

Faculty: Melanie Agnew, Wei Hu, David Perkins

Major: (34 hours: 22 in core, 12 in a track; 8-11 in co-requisites)

Computer Science Major Core: (22)

Major core courses:

CSCI 211	Programming I	3
CSCI 218	Programming II	3
CSCI 236	Data Structures and Algorithms	3
CSCI 340	Data Bases	3
CSCI 420	Networking	3
CSCI 480	Senior Capstone: Senior Seminar	2
Two elective CSCI courses	5

Total hours: 22

Computer Science Track: (12 hours)

Required courses:

CSCI 214	Discrete Math	3
CSCI 226	Computer Architecture	3

CSCI 245 Software Engineering	3
CSCI 326 Operating Systems	3
Total hours:	12
Co-requisites are Calculus II and either Linear Algebra or Numerical Analysis.	
Calc I is a prerequisite	

Information Technology Track: (12 hours)

Required courses:	
CSCI 331 Web Programming	3
CSCI 336 Programming III	3
CSCI 344 Enterprise Application Integration	3
CSCI 428 IT Architecture	3
Total hours:	12
The co-requisite is Calculus II.	
Calc I is a prerequisite.	

Minor in Computer Science: (15 hours)

Required courses:	
CSCI 211 Programming I	3
CSCI 218 Programming II	3
CSCI 226 Computer Architecture	3
CSCI 236 Data Structures and Algorithms	3
One elective CSCI course	3
Total:	15

Minor in Information Technology: (15 hours)

Required courses:	
CSCI 211 Programming I	3
CSCI 218 Programming II	3
CSCI 331 Web Programming	3
CSCI 340 Databases	3
One elective CSCI course	3
Total	15

This Computer Science major emphasizes the theoretical foundations and application techniques for solving problems in today's technological environment. It is a necessary preparation for those that plan to create the technology of tomorrow whether in the pursuit of graduate study or in information management leadership positions in business, industry, or government. This major provides the flexibility to be tailored to the student's particular career interests. The Senior Project provides an opportunity to gain valuable pre-graduation experience while working with current computer theories and applications. It is this flexibility and the broad exposure to computer concepts, together with a Liberal Arts education, that has been appreciated by and will continue to appeal to employers of computer professionals.

Course Descriptions

CSCI 211 Programming I(3, F&S)

This course covers the fundamentals of object-oriented programming utilizing the Java programming language. This first programming course provides students with basic Java programming concepts, data types, operators, flow control statements, objects, classes, methods, arrays, strings, applications, applets, and graphics user interfaces.

CSCI 218 Programming II (3, F&S)

This course extends the concepts learned in Programming I. It covers some advanced features of Java including advanced graphical user interfaces, exceptions, threads, graphics, multimedia, input/output, and networking. Prerequisite: CSCI 211

CSCI 214 Discrete Mathematics (3, F05, 07)

Topics include: sets, functions, relations (incl. Partial order), methods of propositional logic, introduction to predicate logic, counting, recurrence relations, asymptotic analysis, proof (incl. Induction), introduction to probability, and graphs.

CSCI 226 Computer Architecture (3, S06, 08)

Structure and internal organization of digital computers. Machine language and assembly language, representation of numbers, CPU organization, subroutines and linkage. Prerequisite: CSCI 211 or equivalent proficiency

CSCI 236 Data Structures and Algorithms (3, F)

This course covers the fundamental data structures of computer science and accompanying algorithms.

Linked Lists, Stacks, Queues, Binary Trees, Priority Queues, Heaps and other ADTs will be included. Classical sorting and searching algorithms will be learned and implemented. Prerequisite: CSCI 218

CSCI 245 Software Engineering (3, S05,07)

This course covers both a theoretical and a practical foundation in software engineering. In the theoretical part, it covers principles and methods of software engineering, including requirements, specification, design, implementation, testing, validation, operation, and maintenance. In the practical part, it covers the development of software products from an industry perspective, including generation of appropriate documents. Prerequisite CSCI 218.

CSCI 326 Operating Systems (3, F04, 06)

A study of computer architecture at the register level. Management of the processor, memory, peripheral devices, and information. Interrelationships of architecture and operating systems. Performance evaluation. Exposure to system manager responsibilities in UNIX and Windows. Prerequisite: CSCI 226 and CSCI 236 or permission

CSCI 328 Foundations of Computing (3, F05, 07)

This course covers the introduction to the classical and contemporary theory of computation including regular, context-free, and computable (recursive) languages with finite state machines, pushdown automata, and Turing machines. It also covers the historical reasons and the need that gave rise to many different programming languages and discusses the features of the most successful and more influential of them. The similarities and the differences among procedural, functional, object-oriented, logic as well as parallel programming languages will also be covered.

CSCI 331 Web Programming (3, F04, 06)

This course covers the new programming models that are used to support Web applications. It covers software design, interface design, the development side of Web applications. It helps the students learn how to build software that accepts information from users across the Web and returns data to the user, and understand how to interact with database engines to store and retrieve information. Specific topics that are included are HTML, XML, JSP (Java Server Page) and Java servlets. Prerequisite: CSCI 218

CSCI 336 Programming III (3, S05, 07)

This course covers J2EE (Java Enterprise Edition). The topics will include how to develop n-tier applications, design various application architectures based on the J2EE platform, and enterprise technologies - JDBC, RMI, JNDI, EJB, JMS, and JINI. Prerequisite: CSCI 236

CSCI 340 Databases (3, S06, 08)

Introduction to relational databases. Fundamentals of database design and query design. Database management topics include security, integrity, and concurrency techniques. Use of relational database software (including SQL) for application projects. Topics include decision-based and object-based databases. Exposure to database manager responsibilities. Prerequisite: CSCI 218 or permission

CSCI 344 Enterprise Application Integration (3, F05)

EAI overview, types of legacy systems, EAI and e-business, data-level EAI, application interface-level EAI, method-level EAI, user interface-level EAI, middleware models, RPCs, messaging (Microsoft MSMQ and IBM MQ Series), distributed objects, Java middleware, WML basics. Prerequisite: CSCI 336 and CSCI 331

CSCI 420 Networking (3, S05, 07)

An introduction to the basics of data communication and networking. Topics include the OSI model, physical processes used for digital transmission, standardization, local area networks, the network protocols, and network applications. Exposure to network manager responsibilities in UNIX and Windows NT. Prerequisite: CSCI 326 or permission

CSCI 425 Computer Graphics (3, F04, 06)

An introduction to graphics hardware and software. Graphics standards. Topics include two and three dimensional transformations, clipping, projection, hidden line and hidden surface algorithms. Significant laboratory component. Prerequisite: CSCI 236

CSCI 428 IT Architectures (3, S06, 08)

The course focuses on the principles and priorities of enterprise systems design, emphasizing the new requirements brought by e-commerce and distributed integrated systems. It also discusses middleware technology alternatives, resiliency, performance and scalability, security, systems management, information access and accuracy. Prerequisites: CSCI 336 and CSCI 331

CSCI 480 Senior Capstone: Computer Science Seminar (2, S)

For seniors, except by permission. Required of all Computer Science majors.

CSCI 490 Senior Project (3, F)

The senior project allows seniors to participate in a scholarly endeavor with faculty and other students

or in a formally controlled internship. This project will include at least the following three components: (1) A review of one or more scholarly papers from primary literature of computer science; (2) The writing of a significant scientific paper or substantial document to give the student experience in writing for a scientific audience; (3) An oral presentation to students and/or faculty.

CSCI 391, -2; 491, -2 **Independent Study** (1, 2 or 3)

CSCI 496 **Honors in Computer Science** (3)

CSCI 295, -6; 395, -6; 495 **Special Topics in Computer Science** (1,2 or 3, OD)

EARTH SCIENCE (concentration in General Science)

Department of Physics and Earth Science: Mark Yuly, chair

Faculty: Ronald Rohe, Mark Yuly

Part-time: Daria Halkides

General Information

Courses support current environmental and space interests, and lead to the concentration required for a general science major. General science majors are required to take Physical Geology (ESCI 101) and another four-hour Earth Science course; an Earth Science concentration in General Science is fulfilled by adding eight more hours, including independent study.

Listed courses may be supplemented by appropriate AuSable courses (listed under Off-Campus Programs).

Course Descriptions

ESCI 101 Physical Geology (4, S)
Study of materials, structure, and dynamics of the Earth's crust. Identification of rocks and minerals; topographic map studies. Three lecture, three laboratory hours each week.

ESCI 102 General Astronomy (4, F)
Space orientation and a descriptive understanding of the solar system, our galaxy, and the universe. Current theories of cosmic origins. Three lecture, three laboratory hours each week.

ESCI 212 Environmental Earth Science (3, F)
Relationship between humans and Earth systems in the atmosphere, hydrosphere, lithosphere. Environmental problem solving. Introduction to remote sensing and GIS.

ESCI 213 Geographic Information Systems (GIS) Laboratory (1, F)
Optional laboratory to accompany Environmental Earth Science. The laboratory will focus on applications of GIS and GPS to environmental and earth science problems.

ESCI 224 Atmospheric Science (4, OD)
Comparative study of planetary atmospheres. Phenomena of Earth's atmosphere and aerospace, weather, meteorology, and climatology. Three lecture, three laboratory hours each week.

ESCI 230 Hydrology (3, OD)
A study of the properties and circulation of water on the surface of the land, underground and in the atmosphere. Topics to be covered include fluid mechanics, groundwater, wastewater, and environmental concerns. An engineering perspective will be used.

ESCI 291, 292, 391, 392, 491, 492 Independent Study (1, 2, or 3)

ESCI 295, 395, 495 Special Topics in Earth Science (1, 2, 3 or 4)

ESCI 480 Senior Capstone: General Science Seminar (1, S)
Written thesis and oral presentation on a topic selected for interdisciplinary breadth describing current scientific research in the area of the student's concentration, based on a thorough review of scientific literature.

ECONOMICS (minor)

Department of Business and Economics: Kenneth J. Bates, chair

Faculty: Robert A. Black

Website and e-mail: www.businessathoughton.com, business@houghton.edu

Mission: To develop Christlike scholar-servants to serve the people and manage the resources of corporations, small businesses, not-for-profit organizations, and churches.

Minor: (15 hours)

Economic theory provides essential background for careers in business, law, politics, teaching, and all areas of private and public administration.

Minor required courses:

Principles of Micro and Macroeconomics (ECON 210, 211) 3, 3

Additional hours from list below numbered 200 or above 9

Course Descriptions

ECON 102 Personal Finance (2, F)
Basic understanding concerning Christian perspectives toward stewardship, including the management of money, insurance, credit, budgeting, investment, and retirement planning. Elective credit only.

ECON 210 Principles of Microeconomics (3, F)
Economic method, demand and supply, consumer and producer theory, models of product market structure, and selected topics on factor markets, public choice analysis, public expenditure, and finance.

ECON 211 Principles of Macroeconomics (3, S)
Circular flow of income and expenditure in a market economy with government, financial, and foreign sectors. Economic method, demand and supply, national income accounting, inflation, unemployment, business cycles, theories of aggregate price and output determination, fiscal and monetary policy, and the government budget.

ECON 212 International Economics (3, F04)
International trade, international finance, and government policies regarding trade and finance. Why nations trade, protectionist policies, multinationals, financing trade, exchange-rate determination, and international trade and finance in developing nations. Prerequisite: ECON 210

ECON 213 American Economic History (3, OD)
Economic and business development of the United States, colonial period to the present. May be counted toward economics minor or history major/minor.

ECON 237 Comparative Economic Systems (3, F05)
Examination of alternative economic systems; comparison of U.S. economic system with other economies along capitalist-socialist spectrum. Prerequisite: ECON 210 or permission

ECON 301 Money and Banking (3, S)
Role of money and financial institutions in a market economy, development of the U.S. monetary system, Federal Reserve System, money creation process, financial regulation and deregulation, financial innovation, and monetary theory and policy. Prerequisite.: ECON 210 and 211

ECON 302 History of Economic Thought ((3, OD)
Development of modern economic thought in Europe and United States. Limited to juniors and seniors. Prerequisites: ECON 210 and 211 or permission.

ECON 303 Industrial Organization (3, OD)
Examination of firm behavior in theory and practice; case studies of major industries. Government policies toward business (e.g.: antitrust actions and regulation of business environment). Prerequisite: ECON 210 and 211

ECON 315 Managerial Economics (3, S)
Theories of consumer and producer behavior with emphasis on applications to public policy and management of business enterprise. Rationality of consumers, decision-making under risk with applications to insurance and investment, theory of the firm and efficient production, benefits of competition and costs of monopoly, and information and price determination. Prerequisite: ECON 210

ECON 191, -2; 291, -2; 391, -2; 491, -2 Independent Study (1, 2 or 3)

ECON 295, 395, 495 Special Topics (1-4, OD)
Group study of selected topics.

EDUCATION (majors and minor)

Department of Education: Mark LaCelle-Peterson, chair

Faculty: Darlene Bressler, Constance Finney, Cathy Freytag, Mark LaCelle-Peterson, Susan Martin, Charles Massey, Daniel Woolsey

Majors: Childhood (grades 1-6) Education (50 hours in the major; 9 in pre/co-requisites)
Adolescence (grades 7-12) Education (39-40 hours; 6 in pre/co-requisites)

General Information:

- As of spring 2003, there were 242 students (freshmen to seniors) enrolled in the education programs at Houghton College.
- Our students spend an average of 30+ hours/week student teaching for approximately 12 to 15 weeks.
- During the 2002-2003 AY, 55 Houghton College students completed education requirements for NYS certification. Of these, 44 students took the LAST and ATS-W and all 44 passed (100 percent). This compares favorably to the statewide passing percentage of 94 percent.

For admission to the **teacher education program**, a student must:

1. Complete the application to enter the teacher education program
2. Present a writing sample which demonstrates the ability to communicate in writing
3. Present a cumulative grade point average of 2.5 or above
4. Receive formal approval by the Teacher Education Committee.

For entry into **upper level education courses** (300 or above), a student must:

1. Have taken EDUC 219 Educational Psychology, **or** EDUC 240 Teaching in Urban America and, if the student is a childhood education major, EDUC 114 Math for Elementary Teachers
2. Present a cumulative grade point average of 2.6 or above
3. Complete the Upper Level Course Approval form and bring it to the Education Department advisor for course selection.

To be approved for **student teaching**, a student must:

1. Complete the Application for Professional Field Semester (to be submitted in the first two weeks of the semester preceding student teaching)
2. Demonstrate success in EDUC 314 and EDUC 315 (childhood majors) or EDUC 338 and 33x (adolescence majors).
3. Present a cumulative grade point average of 2.7 or above
4. Complete all training sessions required for certification (Identification and Reporting of Suspected Child Abuse or Maltreatment; School Violence Prevention and Intervention; Prevention of Child Abduction; Prevention of Alcohol, Tobacco and Other Drug Abuse; Safety Education; Instruction in Fire and Arson Prevention)
5. Be recommended by members of the education department.

To be approved for **overseas student teaching (an option for adolescence majors)**, the student will complete the first two requirements for student teaching approval noted above, as well as the following:

1. Present a cumulative grade point average of 2.8
2. Submit an essay explaining why he/she is qualified for the experience and how he/she would benefit from the experience
3. Provide a recommendation letter from the academic advisor.

Student Teaching Policy: Recognizing the importance of academic responsibility during teacher training and the challenges inherent in the teaching profession, the Teacher Education Committee has established a 2.7 cumulative grade point average as the necessary requirement for approval to student teach. However, there are rare occasions when students are slightly below the 2.7 cumulative grade point average, yet show reasonable potential for success in student teaching. When such students are identified by their education department advisor and/or the Student Teacher Coordinator, the student may prepare a Letter of Appeal and the case will be considered by the Teacher Education Committee.

Any student dismissed from the college for disciplinary reasons during the junior year or student teaching semester and subsequently readmitted must reapply to the Teacher Education Committee for acceptance for student teaching.

During the student teaching semester, students are not allowed to receive remuneration from the school for teaching services.

New York Teacher Certification

Initial Certification in New York State may be obtained by completing one of the following programs, and by completing three of the four sections of the New York State Teacher Certification Exam (NYSTCE). These sections include the LAST, ATS-W, and CST.

Childhood Education – grades 1-6

Includes the education major and a 30-hour concentration in one of eight areas: English Language Arts; French Language, Culture & Linguistics; Intercultural Studies; Mathematics; Mathematics & Science; Science; Social Studies; Spanish Language, Culture & Linguistics. (**Note:** Childhood education majors are required to take no more than two semesters of a modern foreign language.)

Requirement for 100 hours of pre-student teaching field experience will be met through the following courses:

EDUC 114	6 contact hrs.
EDUC 219	15 contact hrs.
EDUC 221	6 contact hrs.
EDUC 235	4 contact hrs.
EDUC 240	60 contact hrs.
EDUC 314	10 contact hrs.

Adolescence Education – grades 7-12

Includes the Education major and a second major in one of eight areas: Augmented History (Social Studies), Biology, Chemistry, English, French, Mathematics, Spanish, or Physics.

Requirement for 100 hours of pre-student teaching field experience will be met through the following courses:

EDUC 219	15 contact hrs.
EDUC 240	60 contact hrs.
EDUC 313	13 contact hrs.
EDUC 338	20 contact hrs.

Music Education – birth – grade 12

See the description for this program in the Music section of this catalog.

Physical Education – birth – grade 12

See the description for this program in the Physical Education section of this catalog.

Students who desire to teach in states other than New York should familiarize themselves with the requirements of the state in question and select those courses that meet such requirements. Thirty-eight states plus the District of Columbia and Overseas Dependent Schools now have reciprocity agreements with New York state in matters of certification. Lists of these states may be obtained from the education office.

Please note that changes in the Childhood Education major have been submitted to New York State Education Department. Pending the outcome of their review, the requirements of this major may change. Please contact the Education Department in the Academic Building room 200 and/or check the departmental web site for updates.

Childhood Certification – Program Leading to Grades 1-6 Certification

Students must complete the following program plus one of the concentrations outlined below:

Prerequisites/Co-requisites

PSY 111	Introduction to Psychology	3
PSY 214	Child Psychology	3
	American Studies: choose one	3
HIST 220	American History Survey	
POLS 222	American Political System	
POLS 295	ST: Governing the Adirondacks	

Childhood Education Major

EDUC 114	Math for Elementary Teachers	3
EDUC 219	Educational Psychology	3
EDUC 217	Philosophy & History of Education	3
EDUC 221	Children’s Literature	3
EDUC 226	Multimedia Technologies	2
EDUC 235	Educating Exceptional Learners	3
EDUC 240	Teaching in Urban America	3
EDUC 314	Elementary Practicum I	1

EDUC 315	Elementary Practicum II	1
EDUC 316	Collaboration of School, Home, & Community I	1
EDUC 317	Collaboration of School, Home, & Community II	1
EDUC 320	Curriculum & Assessment in Elementary Classrooms ...	3
EDUC 328	Foundations of Language & Literacy	3
EDUC 329	Language & literacy for Diverse Learners	3
EDUC 341	Teaching Elementary Social Studies through the Language Arts	2
EDUC 342	Teaching Elementary Math & Science	3
EDUC 408	Childhood Student Teaching	10
EDUC 485	Senior Capstone: Seminar on Reflective Teaching	2

Concentrations

1. English Language Arts (30 hours)

Literature: 15 hours

ENGL 201 Literature of the Western World	3
ENGL 221 Children's Literature	3
ENGL electives-Any 3 courses in ENGL numbered 203 or above	9

Writing/Communication: 15 hours

ENGL 101 Principles of Writing	3
COMM 205 Introduction to Communication Theory	3
COMM 210 Public Speaking	3
Two of the following, including 1 WRIT and 1 COMM	6
COMM 219 Oral Interpretation	3
COMM 245 Theater Arts	3
COMM 244 Readers Theater	3
COMM 315 Interpersonal Comm	3
WRIT 211, 212, or 213 Advanced Composition	3
WRIT 306 Creative Non-Fiction	3

2. French Language, Culture & Linguistics (30 hours)

Language: 18 hours

FREN 101/102 Beginning French	8
FREN 201 Intermediate French	4
Two of the following choices:	6
FREN 301 French Con & Reading I	3
FREN 302 French Con & Reading II,	3
FREN 305 French Phonetics	3

Culture & Literature: 6 hours

Two of the following:	6
One French Civ & Culture course (300 or above)	3
One French Lit course (300 or above)	3
One Mayterm in a French speaking culture	3

Linguistics: 6 hours

Two of the following:	6
LING 220 Intro Linguistics	3
LING 312 Sociolinguistics	3
LING 351 TESOL	3
COMM 325 Cross-cultural Communication	3

3. Intercultural Studies (31 hours)

Cultural Studies: 16 hours

HIST 101,102 Western Culture	4
INCL 201 Intro Intercultural Studies	3
SOC 243 Cultural Anthropology	3
One of the following:	3
SOC 330 Culture & Family	
SOC 361 Majority-Minority Relations	
One of the following:	3
LING 220 Intro Linguistics	3
LING 312 Sociolinguistics	3
LING 350 First and Second Language Acquisition	3
LING 352 Linguistics for TESOL	3
MISS 222 Modern Missions	3
URMN 212 Urban Ministry	3
MISS 395 ST: Missions in Africa	3
MIN/MISS/URMN/SOC 325 Life in the City	3

Global & Community Awareness: 15 hours

COMM 325 Cross-cultural Communication	3
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Two of the following, no more than one from each department (6)

POLS 220 World Regional Geography	3
HIST 223 Latin American History to 1800	3
HIST 224 Latin American History since 1800	3
HIST 249 African History	3
HIST 251 History of East Africa	3
HIST 306 Australian History	3
MHS 254 Music of World Cultures	3
MISS 321 World Religions	3
ENGL 308 Australian Literature	3
ENGL 361 Contemporary World Literature	3
SOC 293 Eastern African Culture	3
SPAN 211 Ecotour in Honduras	3
ENGL 390 ST: African Folklore	3
<u>Exactly</u> 6 hours (4 + 2, or 3 + 3) from the following:	6
INCL 211 Intercultural Trans & Adjust	2
INCL 311 Intercultural Experience	4
INCL/MISS 231 Global Relief & Development	3
INCL/POLS 320 Community Org & Dev	3
INCL/POLS 336 Gov & Pol in Dev Countries	3
URMN 250 Evang & Social Action in Urban Context	3
SOC 295 Special Topics: Urban Policy	3
INCL 295 Special Topics	3
MISS 295/395 Special Topics	3

4. Mathematics (30 hours)

Mathematics: 17 hours

MATH 181,182 Calculus I & II	8
EDUC 114 Math for Elementary Teachers	3
MATH 2xx (any two courses at 200 level)	6

Mathematics & Computer Science: 13 hours

Choose from among the following courses:	13
CSCI 211 Programming I	3
CSCI 218 Programming II	3
MATH 107 Pre-Calculus OR 110 Analytic Pre-Calculus	3
MATH 190 Math Apps & Issues	2
MATH 231 Probability	3
MATH 232 Math Stats	3
MATH 241 Differential Equations	3
MATH 261 Linear Algebra	4
MATH 281 History of Mathematics	3
MATH 321 Multivariate Calc	3
MATH 422 Advanced Calc	3
MATH 452 Point Set Topology	3
MATH 462 Algebra I	3
MATH 471 Complex Analysis	3

5. Mathematics & Science (30 hours)

Mathematics: at least 12 hours

MATH 107 Pre-Calculus	3
OR	
MATH 181 Calculus I	4
EDUC 114 Math for Elementary Teachers	3
At least 6 hours from among the following:	6+
MATH 181 Calc I (if not taken above)	4
MATH 182 Calc II	4
MATH 190 Math Apps & Issues	2
MATH 281 History of Mathematics	3
CSCI 211 Programming I	3
CSCI 218 Programming II	3

Science: at least 14 hours

Choose two or more from among the following areas: BIOL, CHEM, and PHYS/ESCI

BIOL 103 Fund. of Biology	4
BIOL 105 Conservation Biology	4
BIOL 214 Wildlife Biology	3
BIOL 215 Local Flora	3
BIOL 217/218 Human Anatomy & Physiology	4
CHEM 121 Impact of Science on Society	3
CHEM 207 Intro Nutrition	3
CHEM 208 Intro Nutrition Lab	1

ESCI 101 Physical Geology	4
ESCI 102 General Astronomy	4
ESCI 212/213 Env. Earth Science	3

Note: While these science courses are recommended, students may take any science courses for which they have met prerequisites.

6. Science (30 hours)

At least two courses from each of the following areas: BIOL, CHEM, and PHYS/ESCI

BIOL 103 Fund. of Biology	4
BIOL 105 Conservation Biology	4
BIOL 214 Wildlife Biology	3
BIOL 215 Local Flora & Vegetation	3
BIOL 217/218 Human Anatomy & Physiology	4,4
CHEM 121 Impact of Science on Society	3
CHEM 207 Introduction to Nutrition	3
CHEM 208 Intro Nutrition Lab	1
ESCI 101 Physical Geology	4
ESCI 102 General Astronomy	4
ESCI 212 Environmental Earth Science	3
ESCI 214 Environmental Earth Science Lab	1

Note: While these science courses are recommended, students may take any science courses for which they have met prerequisites.

7. Social Studies (31 hours)

History: 19 hours

HIST 101/102 Western Civilization I & II	4
HIST 220 American History Survey	3
HIST 226 New York State History	3
HIST Two electives, numbered above 220	6
HIST One elective, non-European, non-American	3

Political Science: 6 hours

POLS 220 World Regional Geography	3
POLS 222 American Political System	3

Social Science: 6 hours

PSY 111 Introduction to Psychology	3
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And one of the following:

ECON 210 Microeconomics	3
SOC 101 Principles of Sociology	3
SOC 243 Cultural Anthropology	3

8. Spanish Language, Culture & Linguistics (30 hours)

Language: 18 hours

SPAN 101/102 Beginning Spanish	8
SPAN 201 Intermediate Spanish	4

Two of the following choices:

SPAN 301 Spanish Con & Reading I	3
SPAN 302 Spanish Con & Reading II	3
SPAN 305 Spanish Phonetics	3

Culture & Literature: 6 hours

Two of the following:

One Spanish Civ & Culture course (300 or above)	3
One Spanish Lit course (400 level)	3
One Mayterm in a Spanish speaking culture	3

Linguistics: 6 hours

Two of the following:

LING 220 Intro Linguistics	3
LING 312 Sociolinguistics	3
LING 351 TESOL	3
COMM 325 Cross-cultural Communication	3

Adolescence Education - Program Leading to Grades 7-12 Certification

Students majoring in adolescence education are required to complete the program outlined below in addition to one of the following content majors: Augmented History, Biology, Chemistry, English, French, Mathematics, Physics, and Spanish. See the descriptions of these majors in the appropriate section of the catalog.

Note: those choosing majors in Mathematics, French (literature track) and Spanish (literature track) must complete 30 hours in those areas - which means an additional elective in the major - to be compliant with New York State certification guidelines.

Pre/co-requisites

PSY 111 Introduction to Psychology	3
PSY 215 Adolescent Psychology	3

Adolescence Education Major

EDUC 219 Educational Psychology	3
EDUC 218 Philosophy & History of Secondary Education	3
EDUC 223 Adolescent Literature	3
or EDUC 351 TESOL	3
EDUC 226 Multimedia Technologies	1 or 2
EDUC 235 Educating Exceptional Learners	3
EDUC 240 Teaching in Urban America	3
EDUC 313 Language & Literacy in the Content Areas	3
EDUC 33x Secondary Teaching: Content Methods	3
332 English Methods	
333 Foreign Language Methods	
334 Math Methods	
335 Science Methods	
336 Social Studies Methods	
EDUC 338 Curriculum & Assessment in Secondary Classrooms	3
EDUC 409 Secondary Student Teaching I	6
EDUC 410 Secondary Student Teaching II	5
EDUC 411 Senior Capstone: Seminar in Secondary Teaching	3

Education minor: (15 hours)

An education minor may be chosen by students who wish to broaden their understanding of the educational process yet are not seeking certification.

Required:

Required Courses:

EDUC 219 Educational Psychology	3
EDUC 217 History & Philosophy	3
OR	
EDUC 218 History & Philosophy of Secondary Education	3

Choose three of the following in consultation with an Education Department faculty member:

EDUC 114 Math for Elementary Teachers	3
EDUC 221 Children's Literature	3
EDUC 223 Adolescent Literature	3
EDUC 240 Teaching in Urban America	3
EDUC 235 Educating Exceptional Learners	3
EDUC 313 Lang. & Lit. in the Content Area	3
EDUC 351 TESOL	3
EDUC 355 Theory & Practice of Bilingual Education	3

Course Descriptions

EDUC 102 College Study Methods (P/U) (1, F&S)

Improve study habits: reading textbooks, taking notes, improving memory, preparing for and taking exams, writing research papers, time management. For any student who wishes to work to full potential.

EDUC 114 Math for the Elementary School Teacher (3, F&S)

Builds a conceptual framework for understanding number, numeracy, number operations, probability, statistics, geometry, and measurement. Focus on problem-solving and the use of manipulative materials for developing conceptual understanding.

EDUC 217 History and Philosophy of Education (3, F,S,M)

A survey of the philosophical and historical antecedents of American education and their relationships to current educational debates. Students develop an initial statement of their personal philosophy of education.

EDUC 218 History and Philosophy of Secondary Education (3, F)

A survey of the philosophical and historical antecedents of American education and their relationships to current educational debates with a focus on secondary schools. Students develop an initial statement of their personal philosophy of education.

EDUC 219 Educational Psychology (3, F&S)

The individual in the teaching/learning process. Focus on developmental theory, learning models and theories, cognition, individual differences, motivation, and instructional psychology. Prereq: PSY 111

EDUC 221 Children's Literature (3, F&S)

Offers a survey of various genre in literature for preschool and elementary grade children with an

emphasis upon developing criteria for selection and evaluation utilizing reader response theory, literary criticism, child development and philosophical perspectives.

EDUC 223 Adolescent Literature (3, F)

Students will read and analyze a variety of literature of interest to adolescents with an eye toward understanding adolescents and their place in society, developing criteria for evaluating adolescent literature, and exploring current trends in this literature. In this process students will investigate critical theories about the function and purpose of literature for adolescents, including developmental, aesthetic, and cultural considerations.

EDUC 226 Multimedia Technologies (1 or 2, F&S)

Introduction to (1) design and production of multimedia presentations for classroom use and (2) a variety of distance learning models that bring the World Wide Web into the classroom. One outcome product is a multimedia electronic portfolio. Childhood Ed majors must take the course for two credits; those with an adolescence education major may opt for either one or two credits.

EDUC 235 Educating Exceptional Learners (3, F & S)

Examines the historical and legal context for providing services for children with exceptionalities. Explores the scope of exceptionalities and the processes used to identify and address special needs. Focus on the CSE and referral process and the development and implementation of IEP's in the classroom.

EDUC 240 Teaching in Urban America (3, M)

Provides exposure to and an understanding of race, class, and culture issues in contemporary urban schools. The student will develop an awareness of family and community as partners with schools in the education enterprise. Students will participate in a ten-day field experience in an urban school, working as teachers' assistants. Recommended sophomore year.

EDUC 313 Language and Literacy in the Content Area (3, F)

Analysis of theory and practice of effective use of reading, writing and thinking across the curriculum, as applied to specific secondary school content areas.

EDUC 314 Elementary Practicum I (1, F)

Two half-days per week in either a primary (grades 1-3) or intermediate (grades 4-6) classroom. Focus on observing children and the learning environment, assisting the classroom teacher with daily routines, and supporting the learning of individual children. **Taken concurrently with EDUC 320 and EDUC 328.**

Prerequisites: EDUC 201 and EDUC 217

EDUC 315 Elementary Practicum II (1, S)

Continuation of EDUC 314. Two half-days per week in same classroom assigned for EDUC 314. Focus on increasing responsibility for planning and teaching of lessons under the guidance of the classroom teacher. **Taken concurrently with EDUC 329, EDUC 341, and EDUC 342. Prerequisites:** EDUC 314, EDUC 320 and EDUC 328

EDUC 316 Collaboration of School, Home, and Community I (1, OD)

Considers the nature of relationships among students, families, educators, and community members and explores means of enhancing these relationships to improve the quality of teaching and learning for all children.

EDUC 317 Collaboration of School, Home, and Community II (1, OD)

A continuation of EDUC 316. Considers the nature of relationships among students, families, educators, and community members and explores means of enhancing these relationships to improve the quality of teaching and learning for all children.

EDUC 320 Curriculum and Assessment in Elementary Classroom (3, F)

Provides an exploration of the development of elementary curriculum and assessment and the creation of learning environments that support diverse learners. Includes an examination of lesson planning and unit planning. **Taken concurrently with EDUC 314 and EDUC 328. Prerequisite:** EDUC 219.

EDUC 328 Foundations of Language and Literacy (3, F)

Examines diverse perspectives on language and literacy learning in families, schools, and communities. Explores instructional planning and means of developing literacy learning. Students articulate a philosophy of teaching the English language arts and begin to develop a teaching portfolio. **Prerequisites:** EDUC 217, EDUC 219, and EDUC 221, or permission of instructor. **Taken concurrently with EDUC 314 and EDUC 320.**

EDUC 329 Language and Literacy for Diverse Learners (3, S)

Explores issues related to the teaching and learning of the English language arts including working with English language learners, developing authentic assessment, and meeting the needs of special learners. Students focus on educational research and the continued development of their portfolio. **Prerequisite:** EDUC 328. **Taken concurrently with EDUC 315.**

EDUC 338 Curriculum & Assessment in Secondary Classrooms (3, F)
Examination and analysis of the strategies and dynamics of teaching and learning in adolescent classrooms. Students will spend 20 class hours in a secondary school practicum experience. **Prerequisite:** EDUC 218 and EDUC 219

EDUC 33X Secondary Teaching: Content Methods (3, S)
Adolescence Education majors register for the appropriate content area methods course. This course should be taken the year prior to student teaching. Each course will address instructional methods, New York State Learning Standards, and curricular issues particular to the given content. **Prerequisite:** EDUC 338

- EDUC 332 English Methods
- EDUC 333 Foreign Language Methods
- EDUC 334 Math Methods
- EDUC 335 Science Methods
- EDUC 336 Social Studies Methods

EDUC 341 Teaching Elementary Social Studies and Language Arts (2, S)
Exploration of methods and materials for addressing the needs of diverse students in pursuing various aspects of national and state curriculum standards in social studies and language arts. Emphases will be upon thinking, speaking, listening, reading, and writing about world, U.S., and New York history and geography, as well as citizenship and multicultural education. **Prerequisites:** EDUC 217, 219, and 221, or permission of instructor

EDUC 342 Teaching Elementary Mathematics and Science (3, S)
Exploration of methods and materials pertaining to teaching elementary mathematics and science. National curriculum standards are examined as well as New York State Learning Standards in each subject. This course must be taken concurrently with Elementary Practicum, EDUC 314 or EDUC 315. **Prerequisites:** EDUC 217 and EDUC 219

EDUC 351 TESOL (Teaching English to Speakers of Other Languages) (3, F)
Review of second language teaching methodologies and learning theories. Examination of some of the unique challenges of English structure (phonological, morphological and syntactical) and the transfer problems that non-native speakers may have. Recommended prerequisite: LING 220

EDUC 355 Theory and Practice of Bilingual Education (3, S)
Designed as an introduction to bilingual education and bilingualism. Study of the sociolinguistic and psycholinguistic issues that surround bilingualism and bilingual education. An attempt is made to balance the psychological and the sociological, the macro education issues and the micro classroom issues, the linguistic and the sociopolitical, and to balance discussion at the individual and societal levels. Recommended prerequisite: LING 220

***EDUC 408 Childhood Student Teaching** (10, F&S)
Twelve weeks in a supervised student teaching experience in one classroom, either primary (grades 1-3) or intermediate (grades 4-6) depending on the elementary practicum placement. **Designed for students who have completed all education course work except that offered as a part of the student teaching semester.** (See policy below on "Employment and Activities while Student Teaching.")

***EDUC 409 Secondary Student Teaching I** (6, F&S)
Minimum seven-week placement in either grades 7-9 or grades 10-12 in the appropriate content area. The experience will include a minimum of two weeks with full teaching load responsibilities. **Prerequisite:** EDUC 33x (Secondary Teaching Methods), EDUC 338, and EDUC 313. **Taken concurrently with EDUC 410 & EDUC 411.** (See policy below on "Employment and Activities while Student Teaching.")

***EDUC 410 Secondary Student Teaching II** (6, F&S)
Minimum six-week placement in either grades 7-9 or grades 10-12 in the appropriate content area. The experience will include a minimum of two weeks with full teaching load responsibilities. **Prerequisite:** EDUC 33x (Secondary Teaching Methods), EDUC 338, and EDUC 313. **Taken concurrently with EDUC 409 & EDUC 411.** (See policy below on "Employment and Activities while Student Teaching.")

***EDUC 411 Senior Capstone: Seminar in Secondary Teaching** (3, F&S)
Serves as a capstone course to the major, exploring issues related to the teaching professions through reflective thinking and research-based learning. Other issues examined include identification and prevention of child abuse and abduction, safety education, substance abuse prevention, and similar current educational concerns. **Taken concurrently with EDUC 410 & EDUC 411.**

- *EDUC 485 **Senior Capstone: Seminar on Reflective Teaching** (2, F&S)
Provides an opportunity for childhood student teachers to research their practice and reconsider their philosophy of education in light of their student teaching experiences and educational research. Students also complete the development of their portfolio. **Taken concurrently with EDUC 408.**
- *EDUC 230, 330, 430 **Special Topics** (1, 2, or 3 OD)
Depending on interest, demand and faculty availability, courses will be offered to allow students to consider issues and aspects of educational theory and practice which are not fully explored elsewhere in the curriculum.
- *EDUC 191, -2; 291, -2; 391, -2; 491, -2 **Independent Study** (1, 2, or 3)
- *EDUC 496 **Honors in Education** (3, OD)

***IMPORTANT INFORMATION FOR STUDENT TEACHING**

Employment and Activities while Student Teaching:

It is the responsibility of the college to provide each student with the greatest opportunity for success during student teaching. Students entering this stage of their program are often unaware of the many facets of the experience and do not fully comprehend the time and effort needed to ensure success. Therefore, students are **expected** to eliminate all employment during the student teaching semester. This guideline was established to protect education students from overextending themselves as well as to protect the reputation of Houghton College's education program. However, because students may have extenuating circumstances that necessitate exemption from this restriction, the Teacher Education Committee agrees that under the following guidelines, a student may be permitted to work:

- The student has shown a history of responsible behavior with respect to course requirements and Department of Education guidelines.
- The student presents a written request stating his/her financial need and the anticipated work responsibilities, including days and hours.
- A supporting letter from his/her advisor indicating ability to meet student teaching responsibilities and work involvements with a high degree of success.
- The student can demonstrate that outside employment will not interfere with normal after-school responsibilities associated with the student teaching assignment.
- The student indicates willingness to abide by any restrictions concerning working that the Teacher Education Committee requires.

PLEASE NOTE: If outside employment hinders a student's teaching performance, the Teacher Education Committee reserves the right to require the student teacher to further limit or eliminate work hours.

Failure to follow the appeal procedure may result in the student being removed from the field experience.

Students may be members of intercollegiate teams and club sports **only** if they have received special approval from the Teacher Education Committee **prior to placement**. During the student teaching semester students may not enroll in other college classes with the exception of EDUC 411 or 485.

EDUCATIONAL MINISTRIES

(major, minor, and youth ministries concentration)

Department of Religion and Philosophy: J. Michael Walters, chair

Faculty: Richard Eckley, Harold Kingdon, Kristina LaCelle-Peterson, Terence Paige, Carl Schultz, Paul Shea, John Tyson, J. Michael Walters

Major (BS): (35 hours plus a minor in Bible)

The **educational ministries** major, along with its **youth ministries concentration**, includes a strong liberal arts foundation plus theoretical and applied studies in religious education, to assist the student in preparing for church or para-church vocations such as Christian education director, children, youth, or adult education director, or careers in denomination educational programs or publications. The department expects that majors will fully prepare themselves for the above vocations through subsequent graduate programs in a university or seminary. To be eligible for TAP, New York state residents must also declare a second major and work toward a BA degree.

14 hours in educational ministries:

EDMN 231 Foundations of Educational Ministry	3
EDMN 325 Bible Study and Teaching Methods	3
EDMN 330 Christian Development of Children, Youth, and Adults	3

EDMN 442 Internship in Educational Ministries	3
EDMN 482 Senior Capstone: Seminar in Educational Ministries	2
6 hours in ministry:	
MIN 210 Introduction to Christian Ministries	3
MIN 317 Leadership in the Church	3
6 hours in theology	
THEL 313 Systematic Theology	3
THEL 320 Spiritual Formation	3
3 hours in psychology or education chosen from:	
PSY 214 Child Psychology	3
PSY 218 Social Psychology	3
PSY 306 Psychology of Religion	3
EDUC 201 Instructional Psychology and Research	3
3 hours in family studies chosen from:	
PSY 230 Lifespan Development of the Family	3
PSY 326 Introduction to Family Systems	3
SOC 237 Introduction to Marriage & Family Studies	3
3 hours in urban ministry chosen from:	
URMN 212 Urban Ministry	3
URMN 250 Evangelism & Social Action in the Urban Context	3

The Standard Teacher Diploma issued by the Evangelical Training Association (ETA), of which Houghton College is a member, is awarded to all who complete a major in educational ministries.

Youth Ministries Concentration (44 hours; plus a minor in Bible)

The youth ministry concentration requires the full core of Educational Ministries courses listed above, plus nine hours as follows:

EDMN 350 Youth Evangelism and Discipleship	3
PSY 215 Adolescent Psychology	3
And three hours chosen from the following:	
REC 227 Outdoor Leadership Training	3
REC 240 Administration of Organized Camps	3
REC 300 Program Planning and Evaluation	3
REC 301 Methods and Materials for Camps & Outdoor Education	3

Minor: (15 hrs arranged on a *contract* basis with the Educational Ministries program advisor)

The following courses are required:

MIN 210 Introduction to Christian Ministries	3
EDMN 325 Bible Study and Teaching Methods	3
THEL 313 Systematic Theology	3

In addition, six hours of electives are included as an *emphasis* in the following areas:

1. Educational Ministries core (except EDMN 442)
2. Youth
3. Missions
4. Urban Ministry

Course Descriptions

EDMN 231 Foundations of Educational Ministry (3, S)
Historical, philosophical, and theological developments of religious and Christian education in relation to the practice of ministry.

EDMN 325 Bible Study and Teaching Methods (3, F)
Survey of methods of Bible study and approaches to teaching/learning. Emphasizes: lesson design, planning and presentation, small group leadership, curricula.

EDMN 330 Christian Development of Children, Youth and Adults (3, F)
Examines principles and methods used to foster the spiritual development of children, youth, and adults in their respective life situation.

EDMN 350 Youth Evangelism and Discipleship (3, S)
Eclectic, descriptive, and critical examination of theory and practice of contemporary youth evangelism and discipleship in selected church and para-church models, including denominational programs, Campus Life, and Young Life.

EDMN 442 Internship in Educational Ministries (3, F/S)
Supervised field experience in a church or para-church agency combining academic work with practical and professional responsibilities and relationships. Prerequisites: MIN 210, EDMN 325, and 330 or permission of the educational ministries advisor.

EDMN 482 Senior Capstone: Senior Seminar in Educational Ministries	(2, F)
A senior capstone colloquium required of all students with a major in Religion or Educational Ministries.	
EDMN 191, -2; 291, -2; 391, -2; 491, -2 Independent Study	(1, 2 or 3)
EDMN 496 Honors in Educational Ministries	(3, S)

ENGINEERING

Department of Physics and Earth Science: Mark Yuly (chair)

Faculty: Ronald Rohe, Mark Yuly

Adjunct: John Andrews

Applied Physics Major — Engineering Emphasis (BS)

(31 hours in major, 17 in prerequisites; 13 in co-requisites)

General Information

This major is for those students interested in the engineering applications of physics, and is preparation for an engineering-related career or graduate school in engineering or physics.

The requirements for the engineering physics major are as follows:

Prerequisites (17):

PHYS 151,152 General Physics I, II	8
MATH 181,182 Calculus I,II	8
PHYS 170 Introduction to Engineering	1

Required (31):

PHYS 275, 276 Experimental Physics Lab	2
PHYS 215 Engineering Mechanics: Statics	3
PHYS 250 Engineering Mechanics: Dynamics	3
PHYS 258 Analog Electronics	4
PHYS 259 Digital Electronics	4
PHYS 212 Modern Physics	3
PHYS 353 Electricity and Magnetism I	3
PHYS 355 Thermal Physics	3
PHYS 471, 472 Physics Project Lab	2
PHYS 482 Senior Capstone: Physics Seminar	1

One advanced theory course selected from:

PHYS 352 Mechanics II	3
PHYS 354 Electricity and Magnetism II	3
PHYS 356 Quantum Mechanics	3

Co-requisites (13):

MATH 241 Differential Equations	3
MATH 321 Multivariate Calculus	3
CHEM 151 General Chemistry I	4
CSCI 211 Programming I	3

Additional recommended supporting courses include:

PHYS 260 Optics	3
CHEM 152 General Chemistry II	4
CSCI 211 Programming I	3
ECON 210 Microeconomics	3
BADM 303 Entrepreneurship	3

Dual-Degree Engineering Program

General Information

This is a cooperative program involving Houghton and a partner engineering school. Houghton College currently maintains formal dual-degree program arrangements with Washington University in St. Louis, MO, and Clarkson University in Potsdam, NY. Both of these universities offer outstanding engineering programs.

In a typical dual-degree program, the student will spend three years at Houghton and two years at the partner school of choice. At the conclusion of five years of study, a student making normal progress will have completed all requirements to receive degrees both from Houghton College and from the partner university. The Houghton College degree would be in an appropriate field of study, typically physics, general science, chemistry, or biology, and the degree from the partner school would be in the student's chosen engineering field.

A typical course load during that time would include

MATH 181, 182 Calculus I, II	8
PHYS 170 Introduction to Engineering	1
PHYS 151, 152 General Physics I, II	8
CHEM 151, 152 Chemistry I, II	8
CSCI 211 Programming I	3
MATH 241 Differential Equations	3
MATH 321 Multivariate Calculus	3

Other courses may include

PHYS 175 Engineering Mechanics: Statics	3
PHYS 250 Engineering Mechanics: Dynamics	3
PHYS 258 Analog Electronics	4
PHYS 259 Digital Electronics I	4
PHYS 352 Mechanics II	3
BIOL 151, 152 General Biology I, II	8
CHEM 241,242 Organic Chemistry	8
CSCI 236 Data Structures and Algorithms	3

The remainder of a student's load at Houghton would consist of major requirements and integrative studies courses. The integrative studies requirements at Houghton would, of course, meet humanities and/or social science requirements at the partner school.

ENGLISH (major and minor)

Department of English and Communication: Douglas Gaerte, chair
Faculty: Bruce N. Brenneman, Charles E. Bressler, Laurie A. Dashnau, John R. Leax, James F. Wardwell, Linda M. Woolsey, Stephen A. Woolsey, James A. Zoller

Major: (36 hours in the major)

The major in English provides students with strong liberal arts preparation for a variety of careers including education, business, and the media. It is also appropriate for pre-seminary and pre-law students.

Required courses:	21
WRIT 213 Advanced Composition: Writing about Literature	3
ENGL 203, 204 English Literature I, II	3,3
ENGL 215, 216 American Literature I, II	3,3
ENGL 412 Literary Criticism	3
ENGL 418 Senior Capstone: Seminar in Problems of Literary Study ..	3
An additional five courses of electives are to be selected as follows:	15
Choose two or three courses from:	
ENGL 311 English Renaissance	3
ENGL 312 Restoration and Eighteenth Century	3
ENGL 313 Romanticism and Nineteenth Century	3
ENGL 321 British Fiction	3
ENGL 350 Shakespeare	3
Choose two or three courses from any ENGL course above 216 not listed above (except 353)	
ENGL 221 Children's Literature	3
ENGL 222 Adolescent Literature	3
ENGL 315 Modern Drama	3
ENGL 319 Modern American Poetry	3
ENGL 320 Modern British Poetry	3
ENGL 322 American Fiction	3
ENGL 334 American Short Story	3
ENGL 361 Contemporary World Literature	3
LING 220 Introduction to Linguistics	3

Special Topics in Literature (ENGL 390) may be included in either category its subject matter suggests; the major advisor will provide approval.

Minor: (18 hours)

Students electing a minor in English are required to take either both semesters of English Literature (ENGL 203, 204) or both semesters of American Literature (ENGL 215, 216). An additional 12 hours of electives are to be selected from literature courses with an ENGL prefix. Advanced Composition: Writing about Literature (WRIT 213) is also strongly recommended and may be substituted for a literature course.

Course Descriptions**ENGL 101 Principles of Writing** (3, F&S)

Development of writing skills. Focus on narrative, descriptive, and expository essays. Principles taught by frequent writing, peer workshops, discussions, conferences. Extra tutorial contact required of those with difficulties with mechanics.

ENGL 201 Literature of the Western World (3, F&S)

An introduction to the Western literary heritage from the classical to the post-modern era. Emphasis on how to read poetry, drama, and fiction for better comprehension and interpretation as well as for enjoyment.

ENGL 203 English Literature I (3, F)

Surveys major works and literary movements in England from Beowulf to Neoclassicism. Provides biographical, historical, and ideological information to enhance understanding.

ENGL 204 English Literature II (3, S)

Surveys major works and literary movements of the romantic, Victorian, modern and post-modern periods in their biographical, historical, and ideological contexts.

ENGL 205 English Grammar (1, OD)

Intensive review of English grammar emphasizing practice in punctuation, parts of speech, syntax, usage, and sentence construction. Elective credit only.

ENGL 215 American Literature I (3, F)

Emphases on Puritan thought, deism, romanticism, transcendentalism. Close reading of primary texts. Required of English majors.

ENGL 216 American Literature II (3, S)

Emphasis on emerging realism, the development of naturalism, literary modernism, and new directions in the 20th century. Close reading of primary texts. Required of English majors.

ENGL 217A Writers in Nature (3, F)

(See course description in Off-Campus Programs -- Adirondack Park section.)

ENGL 220 Introduction to Linguistics (3, F&S)

An introduction to the basic elements of linguistics. Emphasis on phonology (the study of sounds), morphology (the study of word formation), syntax (phrase and sentence formation), and semantics (meaning in language).

ENGL 221 Children's Literature (3, F&S)

A survey of various genre in literature for children and young adults with an emphasis upon developing criteria for selection and evaluation. Also explores a range of techniques for enhancing children's understanding and enjoyment of literature.

ENGL 223 Adolescent Literature (3, F&S)

Students will read and analyze a variety of literature of interest to adolescents with an eye toward understanding adolescents and their place in society, developing criteria for evaluating adolescent literature, and exploring current trends in this literature. In this process students will investigate critical theories about the function and purpose of literature for adolescents, including developmental, aesthetic, and cultural considerations.

ENGL 308 Australian Literature (3, F)

(See course description in Off-Campus Programs -- Australia section.)

ENGL 311 The English Renaissance (3, S06)

Poetry and prose from Sidney to Milton (excluding Shakespeare). Attention given to political, historical, religious background. Emphases on Spenser, Milton, and the 17th century devotional poets.

ENGL 312 Restoration and Eighteenth Century (3, S05)

Major figures of English letters 1660-1800. Attention given to satire, comedy of manners, literary criticism, and the rise of the novel.

- ENGL 313 Romanticism and Nineteenth Century** (3, S06)
Problems and topics in nineteenth century life, culture, and letters. Readings in selected major figures from Wordsworth to Swinburne. Emphasis on the relationship of literary tastes and critical opinions to the intellectual and spiritual crisis of the age.
- ENGL 315 Modern Drama** (3, F06)
Emphasis on American and English drama from around 1900 to the present. Beckett and O'Neill as progenitors of significant theatrical trends such as realism, expressionism, and the absurd.
- ENGL 319 Modern American Poetry** (3, F04)
American poetry from 1900 to present. Emphases on trends and selected major figures such as Eliot, Frost, Pound, Stevens, Williams.
- ENGL 320 Modern British Poetry** (3, S05)
British poetry from 1900 to present. Emphases on trends and selected major figures such as Hopkins, Hardy, Yeats, Auden, Thomas.
- ENGL 321 British Fiction** (3, F05)
History and development of the English novel, with emphasis on such writers as E. Bronte, Eliot, Hardy, Wilde, Conrad, Forster, Joyce.
- ENGL 322 American Fiction** (3, S05)
History and development of the American novel, with emphases on such writers as Melville, James, Dreiser, Cather, Fitzgerald, Hemingway, Faulkner, and Baldwin.
- ENGL 334 The American Short Story** (3, S0D)
Development of the American short story from its beginnings with Irving, Poe, and Hawthorne to modern practitioners such as Malamud, O'Connor, and Updike.
- ENGL 350 Shakespeare** (3, F04)
Survey of significant examples of Shakespeare's histories, comedies, tragedies, and some poetry. Includes biographical, historical and critical background; emphasis on close reading of texts.
- ENGL 353 Internship for English Majors** (3, Summer)
Opportunities for off-campus experiences investigating a career option in fields other than teaching, such as advertising, government service, industrial publications, and library science.
- ENGL 361 Contemporary World Literature** (3, F06)
Selections from world masterpieces of the 20th century, especially novels since World War II from the non-English-speaking world.
- ENGL 390 Special Topics in Literature** (3, F&S & May)
Opportunity for study of issues, literary figures, or problems not covered elsewhere in the curriculum (e.g., the Oxford Christians, African-American literature, literature by women).
- ENGL 412 Literary Criticism** (3, F&S)
Theoretical and practical study of the principles of criticism. Emphasis on contemporary critical schools. Brief historical survey. Prerequisite: six hours of literature above ENGL 210.
- ENGL 418 Senior Capstone: Seminar in Problems of Literary Study** (3, S)
Original research and study into selected literary topics. Integration of faith and learning. Intensive library work. Required of all majors. Prerequisite: 21 hours of literature plus Literary Criticism (ENGL 412)
- ENGL 291, -2; 391, -2; 491, -2 Independent Study** (1, 2, or 3)
- ENGL 496 Honors in English** (3, S)

ENVIRONMENTAL SCIENCE

ENVIRONMENTAL STUDIES

Department of Biology: James M. Wolfe, chair
Faculty: John Leax, Robert Smalley, James Wolfe, others as determined by chair

Biology with Environmental Emphasis major (BA, BS)

For students wanting to major in environmental science, we recommend the Environmental Emphasis track within the Biology major (see BIOLOGY). The major builds upon a strong field curriculum (including options of off-campus courses and programs in Africa, Alaska, and the Adirondacks) and prepares students to take the New York state civil service exam for application as a conservation biologist with the NYS Department of Environmental Conservation as well as those planning on further graduate study.

Environmental Stewardship minor

The environmental stewardship minor provides background for students who plan careers that intersect with environmental issues. The minor is supradisciplinary with courses from biology as well as other areas (e.g. English, recreation). The minor can be completed via two options:

- 1) The Houghton in Adirondack Park program (see Off-Campus Programs) at Star Lake offers a fall semester of courses which complete the minor. This program builds upon the Adirondack Park model to examine issues of environmental stewardship in both local and global contexts.
- 2) The minor can be completed by the following on-campus courses:

Required courses:

BIOL 214 Wildlife Biology or	
BIOL 215 Local Flora and Vegetation*	3
REC 401 Natural Resource Management	3
ESCI 212 Environmental Earth Science*	3
WRIT 320 Writing About Nature and the Environment	3
BIOL 475 Environmental Stewardship Senior Seminar	1
Total:	13

* Biology majors with environmental emphasis (where such courses are duplicated or superseded) would substitute Atmospheric Science (ESCI 224), and Public Policy Analysis (POLS 242) or World Regional Geography (POLS 220).

Recommended courses: BIOL 105 Conservation Biology (4); an internship or independent study with environmental management is strongly recommended (1-2).

EQUESTRIAN STUDIES (minor)

Department of Physical Education/Exercise Studies & Recreation/Leisure:

William R. Swanson, chair

Faculty: Jo-Anne Young

Minor: (13-14 hours).

Students take two of these three courses:

REC 220 Leisure and Society	3
REC 221 Intro to Leisure Service Delivery Systems	3
REC 411 Seminar	2

Students also take HRSM 224 Riding Instructor Certification (2) plus six hours of equestrian studies electives (HRSM, 211 level or above). **Note: no more than eight hours of HRSM courses may be counted towards graduation.**

Course Descriptions

ALL equestrian courses have fees. HRSM 113 has a single fee; others have double fees.

HRSM 113 Horsemanship I

(1, F&S)

Fundamental skills in hunt seat, dressage, and/or western riding, according to student background or interest. Grade based on improvement in skills. One riding lab per week; written final. (Counts for PHED 102 integrative studies credit.)

- HRSM 223 Horsemanship II** (Activity Lab) (2, S)
Principles of horse management and other areas related to equitation studies. Hunt-seat equitation, basic dressage, ring riding, and cross-country riding.
- HRSM 224 CHA Riding Instructor Certification** (2, M)
Camp Horsemanship Association (CHA) curriculum: CHA clinic and horsemanship teaching certification in CHA camp programs. Teaching and equitation skills in ring and trail riding of hunt and stock seat. Horsemanship teaching practicum. Prerequisite: REC 113, 223 or permission
- HRSM 276 Dressage** (2, S)
Philosophical and physiological building blocks of dressage, leading to mastery of Training Level and introduction to First Level dressage; lays the necessary foundation for effective horsemanship in all higher level disciplines.
- HRSM 323 Eventing** (2, F)
Fundamentals of dressage and introduction to eventing (three-phase horse trials; includes dressage, cross-country galloping and jumping, stadium jumping techniques). Prerequisite: REC 223 or permission
- HRSM 324 Breaking and Training** (1, F)
Foundations of breaking and training the young horse. Students work with the actual training of a young horse, utilizing classical principles, philosophy, methodology. Prerequisite: REC 223 or permission
- HRSM 325 Horsemanship: Jumping I** (2, F&S)
Fundamentals of basic jumping position and introduction to correctly navigating a course. Philosophy of the hunt seat system of riding. Prerequisite: HRSM 223 or permission.
- HRSM 326 Horsemanship: Jumping II** (2, S)
Building skills, refining techniques, and expanding technical knowledge learned in HRSM 325. Prerequisite: HRSM 223 or permission.
- HRSM 327 Mini-Prix Jumping Equitation** (2, F)
Riding hunt seat equitation and showing hunters or jumpers; learning principles, practices, and philosophy of course design for the various classes and competitions for jumpers.
- HRSM 328 Horsemanship: Judging** (3, F)
Lectures and field trips incorporating judging assignments for learners; understanding the duties of the judge; using good judging to educate riders.
- HRSM 295, 395, 495 Special Topics** (2 or 3, OD)
Courses may be taught relative to special topics in horsemanship, such as riding for the disabled, CHA trail guide certification, CHA instructor of riders with disabilities certification, western reining, etc.

FAMILY STUDIES (minor)

Department of Psychology and Sociology: Daryl H. Stevenson, chair

Coordinators: Michael Lastoria, Jayne Maugans

Minor: (15 hours)

The Family Studies minor is an interdisciplinary program, combining the fields of anthropology, sociology, psychology, and religion. Special topics in other disciplines are also offered according to interest and demand. The minor is designed to provide students with adequate knowledge and skills needed for professional careers in human services and leadership roles in the church, family, and community, in addition to preparing students for further education in Family Studies and related areas.

Prerequisites:

- SOC 101 Principles of Sociology
- PSY 111 Introduction to Psychology

Required courses:

- SOC 237 Introduction to Marriage and Family Studies
- PSY 326 Introduction to Family Systems

Nine hours selected from:

- PSY 230 Lifespan Development of the Family
- PSY 325 Human Sexuality
- THEL 337 Theological Foundations of the Family
- SOC 330 Culture and Family
- SOC 362 Gender Relations
- SOC 390 Practicum in Family Studies

SOC 394 Internship in Family Studies
SOC 297 Special Topics Courses (*preapproved by a coordinator of Family Studies*)
SOC 394 Internship in Family Studies
(NOTE: No minor may include more than six hours of field experience credit.)

Course Descriptions (see Sociology and other areas)

FOREIGN LANGUAGES (majors and minors)

Department of Foreign Languages and Linguistics: Andrew Gallman, chair

Faculty: Marcus Dean, Andrew Gallman, Richard Gould, Nan Hussey, Rebecca Loaiza, Jean-Louis Roederer, Carl Schultz, Angela Tudorii

General Information:

Normally, native speakers of French or Spanish are not admitted to the conversation courses for credit.

Majors are required to spend one semester off campus in a study program in the target language.

Junior-year abroad programs are available in France, Canada, Spain, Colombia, Guatemala, Costa Rica, and Germany/Austria.

CDRP: Cross-disciplinary Research Project - A collaborative effort between the Foreign Language Department and select academic disciplines, allowing qualified students to enrich their studies in both areas through a joint research project. Gives **one** hour of credit in the foreign language, repeatable to a maximum of **three**. Credit may be applied to language majors, minors, or electives. Consult the Foreign Languages Department for specific guidelines and eligibility requirements. Applicable CDRP courses are identified by "CDRP" in departmental course listings. Collaborating departments are: Business and Economics, History and Political Science, Psychology and Sociology. Students taking a CDRP must fill out a special form that can be obtained from the Records Office.

French Major: (30-36 hours), **Spanish Major:** (35 hours)

French, German, & Spanish Minors: (9 hours beyond intermediate level)

Greek Minor: (9 hours beyond GREK 321)

Hebrew and Latin coursework

FRENCH

The French major is divided into two tracks. Students wishing to pursue a major in French must first choose which track they wish to follow in order to determine the appropriate courses to take. Senior Seminar is also required.

(1) Literature (27 hours): Students must take 27 hours from the courses noted in the sections below: two Conversation and Grammar courses; four Literature courses, one Civilization course, and two Foreign Language electives. At least 21 hours of these courses must be taken *in the foreign language*.

(2) Cross-cultural Communication: (33 hours): Students following the cross-cultural communications track must take a total of 12 hours of selected communications courses from the English and Communication department. No more than six of these hours may be taken at the 200 level and at least three of these hours must be taken at the 400 level. These courses should be selected from: COMM 245, 246, 251, 312, 316, 320, 325, 350, 351, 353, 417, 496. For details on these courses, please refer to the Communication section of this catalog.

Students must also take the following from the courses noted in the sections below: six hours of Conversation and Grammar; six hours of Literature; and nine hours of Civilization and Culture (at least three hours of Civilization & Culture must be taken *in the foreign language*).

NOTE: INDS 211 Intercultural Transition and Adjustment *is required* of all language majors/minors taking a semester abroad, and highly recommended for all other students studying abroad for Houghton credit.

Section Requirements: The courses below are divided into four sections. Pay close attention to the requirements for the track you wish to pursue.

1. Conversation and Grammar:

French (FREN)

301-Con & Reading
302-Con & Reading
452-Adv. Gram & Comp.
461-Advanced Conversation

2. Literature:

French (FREN)

321-Survey of Literature
407-Drama of 20th Century
408-Novel of 20th Century
409-Novel of 19th Century
395-Special Topics

3. Civilization and Culture

French (FREN)

315-Mayterm
421-French Civ
395-Special Topics
323-Political Cinema (in Engl)
324- Crossing Cultures (in Engl)
(up to three hours of CDRP)

4. Courses which may be applied to one of several tracks:

French (FREN)

395-Special Topics*
481-French Honors Intrnshp

*Depending on the course of study, this course may be applied as three hours of Literature or Civilization & Culture credit. Consult the professor for further clarification on the nature of the course.

SPANISH

The Spanish major consists of 35 credit hours. Students are required to take a semester off campus in a Spanish speaking country. The program and courses will need to be approved by your academic advisor.

Required Course	What year?	Hours
SPAN301	1st	3
SPAN 302	1st	3
SPAN 305 Spanish Phonetics	1 st or 2nd	3
SPAN350 Adv Spanish Grammar	2 nd	3
SPAN 405 Latin American Civ	2 nd or 3 rd	3
SPAN 406 Civ. of Spain	2 nd or 3 rd	3
SPAN 423 or 424 Latin American Lit	3 rd or 4th	3
SPAN 401 or 402 Spanish Lit	3 rd or 4th	3
INCL 211Intercultural Transition	2 nd or 3 rd	2
*Electives	3rd	6
Senior Seminar	4th	3
		= 35

* A semester off-campus is required for this major and these electives will normally be met at that time.

Course Descriptions

FRENCH

FREN 101, 102 Beginning French

(3/3, F&S)

Development of the skills of comprehending, speaking, reading, and writing French. One hour of in-class lab and additional lab practice required.

FREN 201 Intermediate French

(3, F&S)

Grammar review, selected literary readings and oral practice. Laboratory experience may be required. Prerequisite: FREN 102, or placement by examination

FREN 301, 302 Conversation and Readings

(3/3, F&S)

Intensive practice in speaking French. Oral discussions and reports based on contemporary readings. Laboratory practice required. Prerequisite: FREN 201 or equivalent. Students who have completed FREN 305 and above must obtain permission of instructor.

FREN 305 French Phonetics

(3, S07, S09)

Designed for the English-speaking student, this course stresses corrective measures for difficulties arising from Anglo-American pronunciation habits. Language lab practice required. Prerequisite: FREN 201 or equivalent

FREN 204 or 315 Paris: Capital of French Culture

(3, May, 05)

A three-week field trip course in Paris. Daily lecture-visits and excursions to places of cultural interest both in Paris and its environs. Language instruction and a long and short paper required for integrative studies or major/minor credit. Approximately \$1950 above tuition.

FREN 321 Survey of French Literature

(3, F06)

Masterpieces of French literature from its beginnings to the present. Prerequisite: FREN 301 or equivalent

FREN 395 Special Topics

(3, OD)

Opportunity for study of topics not covered elsewhere in the curriculum, such as: Quebec studies. Depending upon qualifications and student needs, others may be proposed by the French faculty. Prerequisite: FREN 301 or equivalent

FREN 407 French Literature of the 20th Century: Drama

(3, S05, 08)

Masterpieces of the French drama since 1900. Prerequisite: FREN 301 or equivalent

FREN 408 French Literature of the 20th Century: Novel

(3, F05, 08)

Masterpieces of the French novel since 1900. Prerequisite: FREN 301 or equivalent

FREN 409 French Novel of the 19th Century (3, S07)
A study of selected masterpieces of the French romantic and realistic novel. Prerequisite: FREN 301 or equivalent

FREN 421 French Civilization (3, F07, 10)
Historical backgrounds and major contributions of France to contemporary culture. Prerequisite: FREN 301 or equivalent

FREN 452 Advanced French Grammar and Composition (3, S06, 09)
A study of advanced grammar and style. Practice in writing compositions. Prerequisite: FREN 301 or equivalent

FREN 461 Advanced French Conversation: Current Events (3, S05, 08)
Intensive oral practice with a focus on current issues in Francophone countries. Prerequisite: FREN 301 or permission of instructor

FREN 481 French Honors Internship (3/3, F&S)
Experience in a college classroom. The student will be expected to assist the college professor in the classroom at the intermediate level (or above) three days a week. Introduction to prevailing language methods of instruction. **Permission of instructor required.** Must be a French major to be eligible. Upperclassmen and students in Education will be given priority.

FREN 485 Senior Capstone: French (3,S)
Taken as the final course in a French major, this course allows students to demonstrate mastery of the target language and integration of their knowledge of related cultures, history, literature, and linguistics. Students will not only work with a faculty member on a significant research paper or project (related to their chosen track), but will also assemble a portfolio that demonstrates the process of their learning. A presentation of the complete portfolio, including the final project, will be the culmination of this course and the French major. Prerequisites: Senior status and approval of the Department Chair.

FREN 391, -2; 491, -2 Independent Study (1, 2, or 3)

FREN 496 Honors in French (3, S)

SPANISH

SPAN 101, 102 Beginning Spanish (3/3, F&S)
Audio-lingual approach to speaking, reading, and writing. One hour of in-class lab and additional laboratory practice required.

SPAN 201 Intermediate Spanish (3, F&S)
Grammar, conversation, and civilization. Reading ability stressed. One hour of in-class lab and additional practice required. Prerequisite: SPAN 102 or placement by examination

SPAN 204 or 341 May in Spain (3, OD)
Tour of approximately six renowned Spanish cities. Visit museums, historic structures, other cultural sites; see highlights of Spain's past in art and architecture. Cost: \$1500 (est.) above tuition.

SPAN 205 or 342 MesoAmerican Civilization (3, OD)
Tour of the Aztec and Mayan heartland in Mexico. Includes visits to the ancient Aztec capital of Tenochtitlan in Mexico City and the pyramids of Teotihuacan in the Valle de Mexico, and then to the Mayan ruins of Uxmal, Chitzen Itza and Tulum in the Yucatan peninsula. Includes extended tours of the anthropological museums in Mexico City and Merida. Cost: \$1000 (estimated) above tuition.

SPAN 206 or 344 Latin-American Seminar: Current Issues (3, OD)
Three-week study tour in Latin America. Lectures and discussions on historical background, social problems, role of the church, revolutionary ferment, relations with the United States. Excursions to points of interest. Emphasis on a Christian response to third-world realities. Cost approximately \$1500 above tuition. (SPAN 206 fulfills SPAN 201; 344 fulfills conversational language requirement for Intercultural Studies majors.)

SPAN 207 or 346 Aspects of Costa Rica: Language, Culture, and People (4, M)
(SPAN 207 fulfills SPAN 201; 346 fulfills conversational language requirement for Intercultural Studies majors.)
Four-week immersion experience in Costa Rica. Students will be hosted in the homes of nationals as they undergo two weeks of intense language instruction at S4S Spanish school in the historic "City of Flowers," Heredia. Opportunities for service, relationships with university students, involvement in church activities, and excursions will present a broad picture of the current realities of life in Latin America. Prerequisite: SPAN 102 or equivalent. Cost approximately \$1,800 above tuition.

SPAN 211 Ecotour in Honduras (3, M)
Students will have a third-world experience including a service project with Christian Camping International. Visits to national parks and Mayan Indian ruins. Activities include hiking, snorkeling, and attending

cross-cultural classes. Check with professor for cost above tuition. (*Fulfills SPAN 201*)

SPAN 301, 302 Spanish Conversation and Readings (3/3, F/S)

Development of skill in oral comprehension and expression through the discussion of contemporary life issues and of selected readings in Hispanic literature. Prerequisite: SPAN 201 or equivalent

SPAN 305 Spanish Phonetics (3, S05, 07)

A survey of pronunciation problems, designed to help the English-speaker develop an accurate pronunciation of Spanish. Introduction to the phonetic alphabet and to basic concepts of linguistic science. Extensive oral practice. Prerequisite: SPAN 301; co-requisite: SPAN 302

SPAN 350 Advanced Spanish Grammar (3, S06, 08)

A comprehensive course in structure and usage. Prerequisite: SPAN 302 or permission

SPAN 401, 402 Survey of Spanish Literature (3/3, F05, S06)

Representative works, El Cid to contemporary times. Prerequisite: SPAN 350

SPAN 405 Spanish-American Civilization (3, F04, 06)

Survey of Spanish-American culture, pre-Colombian to the present. Socioeconomic problems and relationships with the United States. Prerequisite: SPAN 305; co-requisite: SPAN 350

SPAN 406 Civilization of Spain (3, F05, 07)

Geography and cultural history of Spain. Present political situation, education, art, music, everyday life. Prerequisite: SPAN 305; co-requisite: SPAN 350

SPAN 423, 424 Masterpieces of Spanish-American Literature (3/3, F04, S05)

Selected readings from outstanding Spanish-American authors representing different countries, periods and genres. Prerequisite: SPAN 350

SPAN 481 Spanish Honors Internship (3/3, F&S)

Experience in a college classroom. The student will be expected to assist the college professor in the classroom at the intermediate level (or above) three days a week. Introduction to prevailing language methods of instruction. **Permission of instructor required.** Must be a Spanish major to be eligible. Upperclassmen and students in Education will be given priority.

SPAN 485 Senior Capstone: Spanish (3,S)

Taken as the final course in a Spanish major, this course allows students to demonstrate mastery of the target language and integration of their knowledge of related cultures, history, literature, and linguistics. Students will not only work with a faculty member on a significant research paper or project (related to their chosen track), but will also assemble a portfolio that demonstrates the process of their learning. A presentation of the complete portfolio, including the final project, will be the culmination of this course and the Spanish major. Prerequisites: Senior status and approval of the Department Chair.

SPAN 191, -2; 291, -2; 391, -2; 491, -2 Independent Study (1, 2, or 3)

SPAN 496 Honors in Spanish (3, S)

GERMAN

GERM 101, 102 Beginning German (3/3, F&S)

Audio-lingual approach to speaking, reading, and writing. One hour of in-class lab and additional lab practice required.

GERM 201 Intermediate German (3, F&S)

Review and expansion of grammatical patterns, composition, and conversation; modern fiction, biography, and cultural-historical material. Laboratory practice required. Prerequisite: GERM 102 or placement by exam.

GERM 295, 395, 495 Special Topics (3, OD)

GERM 301 German Conversation & Readings (3, S04, 06)

Intensive practice in speaking German. Oral discussions and reports based on contemporary readings. Laboratory practice required. Prerequisite: German 201 or equivalent

GERM 191, -2; 291, -2; 391, -2; 491, -2 Independent Study (1, 2, or 3)

GREEK

GREK 101, 102 Beginning Greek (4/4, F/S)

Elements of the Koine Greek language. Stress on facility in reading selections from New Testament and Hellenistic literature. Cultural backgrounds in Greek civilization. This course or its equivalent is a prerequisite for all other Greek courses.

GREK 301 Classics in Translation (3, S05, 07)
This course surveys the major authors of Greek and Roman epic and classical drama to determine the variety of treatments given to some significant mythological figures. Individual authors, writing in different centuries, according to differing cultures and genres, portray such figures as Odysseus, Agamemnon, Jason and Medea both in traditional and strikingly original ways. (in Engl.)

GREK 321 New Testament Greek (4, F)
Grammatical readings and exegetical study of Gospel of John and two epistles. Prerequisite: GREK 102
GREK 191, -2; 291, -2; 391, -2; 491, -2 Independent Study (1, 2, or 3)

HEBREW (*Supervised by the Department of Religion and Philosophy*)
HEBR 101, 102 Beginning Hebrew (3/3, F05/S06)
Elements of Biblical Hebrew. Reading from Old Testament. (and alternate years)
HEBR 191, -2; 291, -2; 391, -2; 491, -2 Independent Study (1, 2, or 3)

LATIN
LATN 101, 102 Beginning Latin (4/4, F05/S06)
Elements of the Latin language. Stress on facility in reading. Cultural backgrounds in Roman civilization. Current relevancy.
LATN 221 Intermediate Latin (4, F04, 06)
Grammar review and introduction to Latin literature. Prerequisite: Beginning Latin (101, 102) or two entrance units of Latin

GENERAL SCIENCE (major)
Department of Physics and Earth Science: Mark E. Yuly, chair

Major (BA, BS): (49 hours)

General Information
The general science major is made up of eight (8) hours each in mathematics, biology, chemistry, physics, and earth science, eight (8) or more hours additional concentration in one of the four science areas in courses numbered 200 or above, and a one-hour seminar.

Required courses:

MATH 181, 182 Calculus	8
PHYS 151, 152 General Physics	8
BIOL 151, 152 General Biology	8
CHEM 151, 152 General Chemistry	8
ESCI 101 Physical Geology	4
ESCI Elective	4
Concentration	8
BIOL/CHEM/PHYS/ESCI 480 Senior Capstone: General Science Seminar	1

For the BS degree, the minor requirement is satisfied if this additional concentration is 12 hours or more. For the BA degree, the 12-hour minor should be from an unrelated area.

Course Descriptions
BIOL/CHEM/PHYS/ESCI 480 Senior Capstone: General ScienceSeminar (1)
Written thesis and oral presentation on a topic selected for interdisciplinary breadth describing current scientific research in the area of the student's concentration, based on a thorough review of scientific literature.

HISTORY (majors and minor)

Department of History and Political Science: David A. Howard, interim chair
Faculty: A. Cameron Airhart, William R. Doezeema, David A. Howard, Michael Pearce

History Major: (27 hours)

This major consists of 27 hours in any history course numbered 200 or above. All majors must take the Senior History Seminar (HIST 481). The remaining 24 hours are elective, except that no more than two of the courses marked by an asterisk (*) count toward the major. Transfer students have to take at least half of their major at Houghton - at least 12 hours of non-asterisk courses and no more than six hours of asterisk courses.

General Information

The history major involves a strong liberal arts concentration. The major pro-vides excellent background for careers in law, the ministry, public administration, government service, college and secondary teaching, business, foreign service, and preparation for archivists, museum curators, historic site specialists, librarians, editors, and writers.

Augmented History Major: (36 hours)

An augmented history major for certification at the secondary level consists of 36 hours as follows:

ECON 210 Principles of Microeconomics	3
HIST xxx American History (NY history is recommended for students planning to teach in NY state)	3,3
HIST xxx European History	3,3
HIST xxx Non-European, non-American History	3,3
POLS 220 World Regional Geography	3
POLS 222 American Political System	3
Total	27
PLUS 9 hours in either	
HIST xxx History Electives	3,3
HIST 481 Senior Capstone: Senior History Seminar	3
or POLS xxx Political Science Electives	3,3
(both must be major-level courses and one must be at the 300 or 400 level; neither can be POLS 309 or 312)	
POLS 480 Senior Capstone: Senior Politics Seminar	3
Total	9

Minor: The history minor consists of any 12 hours of history courses numbered 200 or above except that no more than one course marked by an asterisk (*) counts toward the minor.

Course Descriptions

HIST 101 Western Civilization I: Ancient Civilization to 1650 (2, F)
Survey of western civilization from its cultural roots in ancient Near Eastern, Greek and Roman civilizations through its development during the Middle Ages, Renaissance, Reformation, and age of discovery and expansion. Attention to analyzing primary source materials. (Reserved for first-year students. Upperclass transfer students may take this course during Mayterm.)

HIST 102 Western Civilization II: 1650 to the Present (2, S)
Survey of western civilization from the rise of science, the Enlightenment, Industrial Revolution, nationalism and other ideologies, two World Wars, the Cold War and beyond. Attention to analyzing primary source materials. (Reserved for first-year students; upperclass students during Mayterm.)

American History

***HIST 213 American Economic History** (3, OD)
Economic and business development of the United States, colonial period to the present. May be counted toward history major/minor or economics minor.

HIST 220 American History Survey (3, F)
Overview of American history to the present.

***HIST 226 New York State History** (May)
This course surveys the Empire State's history from the Colonial period through the present. The state's history is explored in its own right, but attention is also given to showing how New York state in many respects has been a notable microcosm for broader Colonial and national developments.

HIST 359 Colonial America, 1600-1788 (3, F04)
Settlement of North America with emphases upon religious and social developments as well as upon the American Revolution.

HIST 360 Early National Period, 1788-1850 (3, S05)
Establishment of national political institutions and ideologies. Manifest Destiny, institution of slavery, antebellum revivalism and reforms, nascent industrialization.

HIST 361 Civil War and Industrial America, 1850-1920 (3, F03)
Sectionalism and Civil War, Reconstruction, and adaptation to accelerating industrialization and urbanization, and World War I.

HIST 362 Recent American History, 1920 to Present (3, S04)
Immigration, Depression and New Deal, World War II, Cold War, and resurgence of Evangelicalism.

European History

HIST 325 Europe in the 19th Century (CDRP, see Foreign Languages) (3, F04)
Growth of liberal democracy, influence of industrial revolution and impact of nationalism. French Revolution to 1890.

HIST 326 Europe, 1890-1945 (3, S04)
The changing intellectual climate, World War I, problems of inter-war period, challenges to democracy, background of World War II.

HIST 332 History of Rome (3, F05)
Survey of Roman history and cultures from the beginning of the republic until the disintegration of the empire, emphasizing political and religious developments.

HIST 368 The Reformation (3, F03)
A survey of the continental, English, and Roman Catholic reformation of the 16th century.

HUM 401 Pagans and Christians: Ancient and Medieval Texts (3, OD)
Close analysis of some primary texts from ancient medieval times: Plato, Aristotle, Thucydides, Cicero, Augustine, Dante, et al. Develop scholarly skills of research, interpretation, writing; foster awareness of influence of such works on modern thought. Major/minor credit in history.

HIST 430 English History to 1714 (3, OD)
Roman England to the Stuarts, with attention to constitutional and religious developments.

HIST 431 English History since 1714 (3, S04)
Hanoverian Britain to the present, with attention to political and social developments.

***HIST 453, 454 History of Christianity** (3/3, F&S)
Ancient medieval modern development of Christianity in historical context; doctrines, prominent lives, institutions of each era. Fall: ancient through medieval; spring: reformation through modern. Major/minor credit in history, but will not fulfill the secondary social science portion of the integrative studies requirements. (Cross-listed with Theology.)

Regional History

HIST 223 Latin American History to 1800 (3, F04)
An introductory survey, with attention to cultural interaction during the colonial period.

HIST 224 Latin American History since 1800 (3, F03)
An introductory survey of Latin America from the revolutionary era to the present.

HIST 249 African History (3, S04)
Sub-Saharan Africa from earliest times. Medieval empires of western Sudan, colonial rule, emergence of national states.

***HIST 251 East African History** (3, S04)
(See Off-Campus Programs section for course description.)

***HIST 306 Australia History** (3, F03)
(See Off-Campus Programs section for course description.)

***HIST 355 East Asia: History and Politics** (3, TBA)
Introduction to history and politics of East Asia from ancient time to present, with focus on China and Japan. Emphasis on historical and political developments in 19th and 20th centuries leading to founding of Communist China and new Japan.

***HIST 357 Russia and the USSR: History and Politics** (3, TBA)
Introduction to Russian and Soviet history and politics from first records to present with focus on government, institutions, culture and society of Imperial and Soviet periods.

HIST 381 Historiography (3, OD)
History of historical writings and methods; theories of history.

HIST 295, 395, 495 Special Topics (CDRP, see Foreign Languages)	(2 or 3, OD)
Group study of selected topics; open only by permission.	
HIST 481 Senior Capstone: Senior History Seminar	(3, S)
Each student will work with a departmental faculty member to develop or revise a research paper into a substantial historical article. Required for the history major.	
HIST 191, -2; 291, -2; 391, -2; 491, -2 Independent Study	(1, 2 or 3)
HIST 496 Honors in History	(3, S)
* only one course with asterisk counts toward the minor	

HUMANITIES (major)

Department of Religion and Philosophy: J. Michael Walters, chair
Program Director: W. Christopher Stewart

Major: (37 hours)

The interdisciplinary major in humanities consists of an equal emphasis on courses selected from the departments of history, literature, and philosophy. The program encourages students to learn the methodologies of several disciplines, to trace interrelationship among disciplines, and to study common themes and issues from a variety of perspectives. Intensive and extensive study in the intellectual, social, and aesthetic movements of Western culture culminates in a senior paper in which the student has the opportunity to synthesize some of the developments which he or she studies.

Students majoring in humanities often look toward careers in professional fields such as teaching and the Christian ministry. Library services, geriatrics, and elementary education are other career options. This major appeals particularly to students with a broad range of intellectual interests and with a desire to study widely as well as in depth. The program, which involves the departments of History and Political Science, English and Communication, Foreign Languages, and Religion and Philosophy, is administered by the Department of Religion and Philosophy.

Major required courses:	
Literature (3 may be in classics or a modern foreign language)	9
History	9
Philosophy	9
Additional course in one of above	3
Art History or	
Music History	3
Elective (with consent of advisor)	3
Senior Capstone: Humanities Seminar	1

HUM 395 Special Topics	(1, OD)
HUM 481 Senior Capstone: Humanities Seminar	(1, S)
The student undertakes a directed studies project in which he or she produces a paper that synthesizes the historical, literary, and philosophical developments relevant to a selected theme or person.	

INTERCULTURAL STUDIES (major and minor)

Faculty: Andrew F. Gallman (Director); Jonathan E. Arensen; Marcus Dean, Richard K. Eckley; Sherry W. Gallman; Rebecca C. Loaiza; Ronald J. Oakerson; Paul W. Shea

Major: (35-44 hours which includes a 26-hour core plus either nine hours of electives or one 18-hour concentration. The five concentration options are linguistics, missions, urban studies, Spanish or French.)

General Information

The Intercultural Studies major seeks to prepare students to serve effectively as scholar-servants in cross-cultural communities. The major, drawing heavily on the methodologies and perspectives of anthropology and related social sciences, integrates the theory of cross-cultural development work with experiential learning in cross-cultural settings. This major will provide competence for students seeking to serve in such fields as community development, relief work, health services, education, missions, and Bible translation in developing countries and inner-city context.

Students choosing to do a concentration are not required to take a minor. However, if you do not choose to do a concentration, then you will need to choose three electives. You will still be required to do a minor.

Major required courses - 26 hours

INCL 201 Introduction to Intercultural Studies	3
INCL/SOC 243 Cultural Anthropology	3
INCL/MISS 231 Global Relief and Development	3
INCL/COMM 325 Cross-Cultural Communication	3
INCL 211 Intercultural Transition and Adjustment	2
INCL (FREN 301/SPAN 301) Conversation-level Frgn Lang	3
(Or substitute a spoken language: Swahili, Arabic, Thai...)	
INCL 311 Intercultural Experience	4
INCL 482 Senior Capstone: Intercultural Seminar	2
One of these two:	3
INCL/POLS 320 Community Organization and Development	
INCL/POLS 336 Governance and Politics in Developing Countries	

Electives -- 9 hours

Any course listed in the concentrations or listed but not taken as part of the core.

Business and Economics Department

BADM 313 International Business

ECON 212 International Economics

Foreign Language Department

Another 300+ level Foreign Language course

History and Political Science Department

HIST 223 Latin American History

HIST 249 African History

HIST 251 East African History

HIST 355 East Asia: History and Politics

HIST 357 Russia and the USSR: History and Politics

POLS 220 World Regional Geography

POLS 240 Comparative Government

Music Department

MHS 254 Music of World Cultures

Psychology and Sociology Department

SOC 293 East African Cultures

SOC 330 Culture, Ethnicity, and the Family

SOC 338 The Sociology of Religion

SOC 351 Individual and Society

Social Science Methodology

SOC 309 Statistics

SOC 312 Social Science Research Methods

Optional Linguistics Concentration - 18 hours

Basic Core: (12 hours)

LING 220 Introduction to Linguistics

LING 322 Phonetics

LING 323 Phonology

LING 333 Grammar

Special Interests: (choose any two)

LING 312 Sociolinguistics

LING 350 First and Second Language acquisition

LING 351 TESOL

LING 355 Theory and Practice of Bilingual Education

Optional Missions Concentration - 18 hours

Basic Core: (6 hours)

MISS 221 History of Missions

MISS 222 Modern Missions

Biblical/Religion Core: (6 hours)

Required:

MISS Missions in Biblical and Theological Perspective

Bible/Missions/Theology/Religion

Any BIBL course, level 200 or above

MISS 321 World Religions

THEL 214 Cults and New Age

THEL 215 Christian Apologetics

Skills/Tools Core: (6 hours any two)

Ministry skill

Choice of courses in Educational Ministry or Religion that enhance personal or ministry skills:

EDMN 325 Bible Study and Teaching Methods

EDMN 422 Leadership in Ministry

URMN 212 Urban Ministry

<i>MISS 395 Special Topics in Missions and other options available.</i>	
Cross-cultural Depth	3
<i>Choice of courses to enhance cross-cultural abilities:</i>	
<i>HIST 223 and other Regional Histories</i>	
<i>MHS 254 Music of World Cultures</i>	
<i>Linguistics or Language courses</i>	
<i>relevant courses from Off-Campus Study programs</i>	
<i>MISS 395 Special Topics in Missions</i>	
<i>and other options.</i>	

Optional Urban Studies Concentration – 18 hours

<u>Urban Ministry Core:</u> (6 hours)	
URMN 212 Urban Ministry	3
URMN 250 Evang. and Social Action in the Urban Context	3
<u>Urban Studies Core:</u> (6 hours)	
SOC 295 Urban Policy	3
SOC 361 Race and Ethnicity (Majority Minority Relations)	3
<u>Skills/Tools Core:</u>	6
Similar to missions concentration. Through counsel and advisement, students are allowed to sharpen their skills in appropriate areas of ministry or interest from administration to ministry.	

Optional French Concentration - 18 hours

<u>Basic Core:</u> (9hrs)	
FREN 302 French Conversation & Reading	3
FREN 305 French Phonetics	3
FREN 452 Advanced French Grammar and Composition	3
<i>(FREN 305 or 452 may be taken in either order after FREN 302)</i>	
<u>Civilization/Culture:</u> (choose one)	
FREN 421 French Civilization	
FREN 461 Advanced French Conversation	
<u>Literature:</u> (choose one of the following)	
FREN 321 Survey of French Literature	
FREN 407 French Literature of the 20 th Century: Drama	
FREN 408 French Literature of the 20 th Century: Novel	
FREN 409 French Literature of the 19 th Century	
<u>Electives:</u> (choose one of the following or any of the above not yet selected)	
FREN 315 Paris: Capital of French Culture (Mayterm)	
FREN 391 Independent Study (by permission of the instructor)	
FREN 395 Special Topics (in the target language)	
Approved study abroad program:	

Optional Spanish Concentration - 18 hours

<u>Basic Core:</u>	
SPAN 302 Spanish Conversation & Reading	
SPAN 305 Spanish Phonetics	
SPAN 350 Advanced grammar and Composition	
<u>Electives:</u>	
One course in Latin American Civilization*	
One course in Spanish Civilization*	
One course in Latin American or Spanish Literature	
<i>(*a Mayterm course in Latin America or Spain may substitute for ONE of the civilization elective requirements)</i>	

Minor in Intercultural Studies - 15 hours

INCL/SOC 243 Cultural Anthropology	3
INCL/COMM 325 Cross-Cultural Communication	3
INCL 211 Intercultural Transition and Adjustment	2
INCL 311 Intercultural Experience	4
Choose from:	3
INCL/URMN 212 Urban Ministry	
INCL/LING 220 Introduction to Linguistics	
INCL/MISS 222 Modern Missions	

Course Descriptions

INCL 201 Introduction to Intercultural Studies (3,S)
The entry level course for the Intercultural Studies major. Basic presentation of culture and service across cultures. Fundamentals in fields of anthropology, communication, cross cultural living, language learning and linguistics, and missiology will be introduced. Includes survey of options and agencies available for global intercultural service.

- INCL 211 Intercultural Transition and Adjustment** (2, F, S, M)
Transition model, cultural shock, cross-cultural conflict, and aspects of intercultural communication as influenced by value dissonance; to enable students to develop realistic, positive expectations about intercultural and interpersonal relationships. Required for students taking INCL/INDS 311.
- INCL/MISS 231 Global Relief and Development** (3, S)
Survey of the issues and principles involved in addressing the community level human crises in today's world – poverty, hunger, refugees, disease, and underdevelopment. Introduction to a theology of compassion, causes, principles, and case studies. Special attention given to preparing for role of listener, facilitator, and change-agent.
- INCL /SOC 243 Cultural Anthropology** (CDRP, see Foreign Languages) (3, F)
Cultural and social aspects of human behavior; comparison of cultures.
- INCL 311 Intercultural Experience** (4, OD)
A cross-cultural experience in an approved setting in an area of service related to student's concentration or field of interest. Preliminary studies and research, the dynamics of living and serving, ongoing mentorship, and periodic reflection will result in journaling and final summary synthesis research paper. This experience may be linked to formal study-abroad programs, official internship affiliation, or pre-approved individual arrangements. Prerequisite: INCL 211
- INCL/POLS 320 Community Organization and Development** (3, F)
A comparative study of how local communities organize themselves to manage natural resources and provide collective goods and sources. Considers issues related to decentralization and sustainable development. Emphasis in analytic approaches to problem-solving. Prerequisite: INCL 231
- INCL/COMM 325 Cross-Cultural Communication** (3, F)
Theory and practice in communication across cultural boundaries. Permission of instructor.
- INCL/POLS 336 Governance and Politics in Developing Countries** (3, OD)
A study of patterns of governance and politics typical of developing countries with an emphasis in relationships between governance and development. Prerequisite: INCL 231
- INCL 482 Senior Capstone: Intercultural Seminar** (2, S)
Joint weekly discussion sessions of all senior majors aimed at reflection on critical broad principles and fine-tuning of abilities for intercultural service. Program faculty assumes team leadership and preparation of topics and format, and they each present a summary session on key issues for the entire seminar. Students each present an approved paper on area of interest stemming from studies and intercultural experience. Several weeks may be set aside for specific disciplines to meet separately for capstone discussions in their field.
- INCL 291, 391, 491 Independent Studies** (1-3, OD)
- INCL 195, 295, 395, 495 Special Topics** (1-3, OD)
Topics offered according to interest and demand.

INTERNATIONAL RELATIONS (major and minor)

Department of History and Political Science: David A. Howard, interim chair

Program Director: B. David Benedict

Faculty: B. David Benedict, Robert Black

Major: (38-39 hours, 6 hours prerequisite)

Minor: (15 hours; 3 hours prerequisite)

General Information

This major is an interdisciplinary study of international relations from international politics, international economics, and world community perspectives.

Prerequisites:

ECON 210 Microeconomics 3

POLS 309 Statistics 3

(counts for first level Integrative Studies credit for social science choices)

The major consists of 38 hours.

Foundational Course:

POLS 230 Introduction to International Relations 3

Skills Courses:

COMM 325 Cross-Cultural Communication 3

Foreign Language (Conversation and Readings)	3
(Students must have language instruction or demonstrate ability at the conversation and reading level in one foreign language)	
POLS 312 Social Science Research Methods	3
INDS 211 Intercultural Transition and Adjustment	2
(is a prerequisite for the Intercultural Experience)	
Core Courses: Students must complete six core courses.	
Choose <i>two</i> International Politics courses:	6
POLS 240 Comparative Government	
POLS 395 International Relations Theory	
POLS 395 International Law and Organization	
POLS 316 American Foreign Policy	
POLS 395 Governance and Politics in Developing Countries	
Choose <i>two</i> International Economics/Business courses:	6
ECON 212 International Economics	
ECON 237 Comparative Economic Systems	
ECON 211 Macroeconomics	
BADM 313 International Business	
Choose at least one (3 hours), but not more than two (6 hours), regional histories:	
HIST 223, 224 Latin American History	3, 3
HIST 249 African History	3
HIST 251 East African History	3
HIST 325,326 European History	3, 3
HIST/POLS 355 East Asia: History and Politics	3
HIST/POLS 357 Russia and USSR: History and Politics	3
HIST 430, 431 English History	3, 3
Or a regional history taught during the Intercultural Experience	3
If needed, choose a sixth course from the above Core Course offerings or an equivalent taught during the Intercultural Experience.	
Capstone Courses:	
INDS 311 Intercultural Experience (Internship)	4
INCL 482 Senior Intercultural Seminar or	2
POLS 480 Senior Politics Seminar	3
Total:	38-39 hours

Minor: (15 hours; 3 prerequisites)

Prerequisite:

ECON 210 Microeconomics	3
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Minor:

POLS 230 Introduction to International Relations	3
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International Politics	3
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(choose one course from list of Int'l Politics courses in major)

International Economics	3
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(choose one course from list of Int'l Economics courses in major)

And both these courses:

INDS 211 Intercultural Transition and Adjustment	2
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INDS 311 Intercultural Experience	4
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Course Descriptions

INDS 211 **Intercultural Transition and Adjustment** (2, F&S)

Transition model, cultural shock, cross-cultural conflict, and aspects of intercultural communication as influenced by value dissonance; to enable students to develop realistic, positive expectations about intercultural and interpersonal relationships. Required for students taking INCL/INDS 311.

INDS 311 **Intercultural Experience** (4, OD)

A cross-cultural experience in an approved setting in an area of service related to student's concentration or field of interest. Preliminary studies and research, the dynamics of living and serving, ongoing mentorship, and periodic reflection will result in journaling and final summary synthesis research paper. This experience may be linked to formal study-abroad programs, official internship affiliation, or pre-approved individual arrangements. Prerequisite: INCL 211

LATIN (see Foreign Languages)

LINGUISTICS (minor)

Department of Foreign Languages and Linguistics: Andrew Gallman, chair

Faculty: Andrew Gallman, Sherry Gallman, Rebecca Loaiza

Minor: (15 hours) This minor is taught in conjunction with the Summer Institute of Linguistics (Wycliffe Bible Translators).

Required courses:

LING 220 Introduction to Linguistics	3
LING 322 Phonetics	3
LING 323 Phonology I	3
LING 333 Grammar I	3
One additional course from LING	3

Linguistics courses are useful to anyone expecting to learn or work with languages; foreign language majors, English as a second language students, people interested in TESL as a career, people interested in missions and international business, education majors facing multilingual classrooms, are a few examples. Philosophy and psychology students find the areas of semantics and phonology to overlap with their fields of interest. Math majors have found the analysis procedures of linguistics to require similar thinking skills to higher mathematics, and linguistics has provided them a real world application of mathematics training.

Course Descriptions

LING 220 Introduction to Linguistics (3, F,S)
An introduction to the basic elements of linguistics. Emphasis on phonology (the study of sounds), morphology (the study of word formation), syntax (phrase and sentence formation), and semantics (meaning in language).

LING 312 Sociolinguistics (3, S)
Focuses on language use patterns in multilingual societies: language maintenance and death; language attitudes; language planning; Pidgins and Creoles.

LING 322 Phonetics (3, S)
An introduction to the theory and practice of articulatory phonetics; intensive drill in definition, recognition, production, and transcription of the whole range of sounds used in human speech.

LING 323 Phonology I (3, F)
The principles involved in the analysis of sound systems with extensive practice in the phonological analysis of material from a wide variety of languages. Prerequisite/co-requisite: LING 322 Phonetics.

LING 333 Grammar I (3, S)
Principles and techniques of the analysis of morphological and syntactic structures of language.

LING 351 TESOL (Teaching English to Speakers of Other Languages) (3, F)
Review of second language teaching methodologies and learning theories. Examination of some of the unique challenges of English structure (phonological, morphological and syntactical) and the transfer problems that non-native speakers may have. Recommended prereq: LING 220.

LING 355 Theory and Practice of Bilingual Education (3, S)
Designed as an introduction to bilingual education and bilingualism. Study of the sociolinguistic and psycholinguistic issues that surround bilingualism and bilingual education. An attempt is made to balance the psychological and the sociological, the macro education issues and the micro classroom issues, the linguistic and the sociopolitical, and to balance discussion at the individual and societal levels. Recommended prereq: LING 220.

LING 295, 395, 495 Special Topics (1-3, OD)
These offerings will take advantage of faculty expertise to focus on advanced linguistic topics of interest to the student body. The first offering will be during the Houghton in Tanzania program, focusing on African language structure. The course may be repeated for different topics. Prerequisites to be determined at the time of offering.

LING 291, -2; 391, -2; 491, -2 Independent Study (1, 2, or 3)

MATHEMATICS (major and minor)

Department of Mathematics and Computer Science: Richard Jacobson, chair

Faculty: Wei Hu, Richard Jacobson, David Perkins, Paul Watson

Major: (28 hours)

Required courses:

MATH 181, 182 Calculus I, II 8

MATH 261 Linear Algebra 4

MATH 482 Senior Capstone: Mathematics Seminar 2

Other courses 181 or above 14

Highly recommended for teachers of math:

MATH 251 Modern Geometries

MATH 462 Algebra

MATH 291 History of Mathematics

Teaching Mathematics - Childhood (Elementary) or Adolescence (Secondary): See Education

Minor: (14 hours numbered 181 or above)

General Information

Many of our graduates enter the teaching profession. However, the math majors are also well prepared to pursue graduate work in engineering, computer science, law, theology, and the medical profession, as well as mathematics. Most of our students who complete a PhD program in mathematics are now college professors. Those who do not pursue an advanced degree find employment in a multitude of fields, ranging from the banking profession to Bible translators with Wycliffe. A number of our math majors find careers in the computer field.

Course Descriptions

MATH 107 Pre-Calculus (3, F&S)

A contemporary approach to precalculus mathematics, including linear, quadratic, exponential and trigonometric functions as well as introductory probability concepts. Incorporation of peer group work with a strong emphasis on graphing technology. Meets math integrative studies requirement as well as preparing students for calculus.

MATH 181 Calculus I (4, F&S)

Single variable calculus of algebraic and trigonometric functions. Applications involving maximum, minimum, and related rates. Intensive use of graphing calculators and computer software. Prerequisite: MATH 107 or equivalent proficiency.

MATH 182 Calculus II (4, F&S)

Areas, volumes, centroids, integration techniques, calculus of transcendental functions, infinite series. Prerequisite: MATH 181

MATH 190 Mathematical Applications and Issues (2, S)

A survey of various problems encountered in present day mathematics as well as vocational opportunities available to mathematicians. Pre-requisite: MATH 181 or permission

MATH 214 Discrete Mathematics (3, F 05, 07)

Topics include: sets, functions, relations (incl. Partial order), methods of propositional logic, introduction to predicate logic, counting, recurrence relations, asymptotic analysis, proof (incl. Induction), introduction to probability, graphs.

MATH 231 Probability (3, F05, 07)

Combinatorics, independence, conditional probability, discrete and continuous random variables, expected value and variance. Prerequisite: MATH 182

MATH 232 Mathematical Statistics (3, F04, 06)

Probability theory, random variables, sampling, estimation, hypothesis testing and linear regression. This course emphasizes the mathematical rather than the applied features of statistics. Prerequisite: MATH 182

MATH 241 Differential Equations (3, F)

Methods of solution and applications of principle types of differential equations. Prerequisite: MATH 182

MATH 251 Modern Geometries (3, S)

A survey of geometry including advanced Euclidean geometry and an introduction to non-Euclidean geometries. Prerequisite: MATH 182

MATH 261 Linear Algebra	(4, F&S)
Linear algebra: vector spaces, linear mappings, inner products and matrices. Prerequisite: MATH 181	
MATH 281 History of Mathematics	(3, M)
A contextual study of the history of mathematics and some of the classical problems. Prerequisite: MATH 182	
MATH 321 Multivariate Calculus	(3, F)
Infinite series, space geometry, vectors, vector function, function of several variables, partial differentiation, multiple integration. Prerequisite: MATH 182	
MATH 331 Numerical Analysis	(3, S06, 08)
Representation of numeric data. Error analysis, mathematical basis, and limitations of techniques relating to selection of method. Topics: linear and nonlinear systems, curve fitting, numerical calculus, programming in MatLab. Prerequisite: MATH 181	
MATH 422 Advanced Calculus	(3, F04, 06)
Structure of the real number system, theory of limit, continuity, differentiation, Riemann integration, and infinite series. Prerequisites: MATH 321 and MATH 261, or permission	
MATH 452 Point Set Topology	(3, S06, 08)
Open and closed sets. Connected, compact, and metric topological spaces. Prerequisite: MATH 261	
MATH 462 Algebra I	(3, S05, 07)
Groups, Sylow theorems, rings and fields. Prerequisite: MATH 261	
MATH 471 Complex Analysis	(3, S05, 07)
Complex number system, limits, differentiation and integration in the complex plane, complex series. Prerequisites: MATH 321 and MATH 261, or permission	
MATH 482 Senior Capstone: Mathematics Seminar	(2, S)
A capstone course which draws on many other courses. Emphases on formulating, solving, and explaining challenging problems in both verbal and written form. For seniors, except by permission.	
MATH 391, -2; 491, -2 Independent Study	(1, 2 or 3)
MATH 295, -6; 395, -6; 495 Special Topics in Mathematics	(1, 2 or 3)
A survey of topics not covered in other mathematics classes, including graph theory, computation theory, infinite cardinalities, and Galois theory.	
MATH 496 Honors in Mathematics	(3)

MEDICAL TECHNOLOGY - with a major in Biology (BS)

Department of Biology: James M. Wolfe, chair
Faculty: As determined by chair.
Adjunct Faculty: Joseph King, Brian Spezialetti

The program in medical technology which leads to a BS in biology requires that the student complete 94 hours of course work at Houghton College and then transfer to Robert Packer Hospital (Sayre, Pa.) or another approved program to complete a major in biology and a minor in chemistry.

The following courses must be taken at Houghton:

All integrative studies requirements	
BIOL 151, 152 General Biology	8
BIOL 242 Microbiology	4
BIOL 251 Genetics	4
BIOL 281 Introduction to Research	1
BIOL 365 Immunology	4
CHEM 151, 152 General Chemistry	4, 4
CHEM 241 Organic Chemistry I	4
CHEM 277 Analytical Chemistry	4
MATH 107 Pre-Calculus or	3
MATH 181 Calculus I	4

If a student plans to attend a nonaffiliated medical technology program, s/he must petition for approval of the program during his/her junior year. Enrollment in hospital programs is limited by small class size, and there is no guarantee of admission. Usually a cumulative grade point average of at least 3.0 is needed in order to be a successful applicant. Students who choose not to continue in the medical

technology (clinical laboratory science) program or who are not admitted to the professional curriculum may complete a year in biology or general science during the senior year.

Following successful completion of the senior year in the hospital program, students are qualified to sit for the national certification exams. These are administered by the Board of Registry of Medical Technologists and the National Certification Agency for Medical Laboratory Personnel.

MINISTRY – *See the following headings:*

- Christian Ministries (AAS)**
- Educational Ministries (incl. Youth Concentration option)**
- Missions**
- Pastoral and Church Ministries Program (AAS), in Adult Learning Opportunities section**
- Religion (includes Ministerial Concentration option)**
- Urban Ministry**

MISSIONS (minor, see also Intercultural Studies mission concentration)

Department of Religion and Philosophy: J. Michael Walters, chair

Faculty: Kristina LaCelle-Peterson, Paul Shea

Minor: (12 hours) Most students minoring in missions will include the highly recommended Cross-Cultural Field Experience in addition to the 12 hours of regular course work.

Required courses:

MISS 221 History of Missions	3
MISS 222 Modern Missions	3
Minor elective credit chosen from:	6
MISS 231 Global Relief and Development	
MISS 311 Cross-Cultural Field Experience	
MISS/THEL 321 World Religions	
MISS 341 Missions in Biblical and Theological Perspective	
MISS 395 Special Topics in Missions	
THEL 214 The Cults and New Age	
COMM 325 Cross Cultural Communication	
LING 220 Introduction to Linguistics	
SOC 243 Cultural Anthropology	

Course Descriptions

MISS 221 History of Missions (3, F)
Missions from apostolic days to present. Changing concepts of missions. Contributions of outstanding leaders.

MISS 222 Modern Missions (3, S)
Survey the contemporary state of the global church and its mission; introduction to theology of missions, goals, and strategies; special attention to current trends, issues, and research.

MISS 231 Global Relief and Development (3, S)
A survey of the underlying theology, principles, and methods involved in addressing the human crises in today's world – poverty, hunger, disaster, disease, refugees, and underdevelopment. Focuses on Christians' responsibility as change-agents at the community level. An interdisciplinary approach incorporates theology, missiology, economics, and social sciences seeking to balance theory with concrete case studies and modest hands-on experience and debriefing.

MISS 300 Christianity and Postmodernism (3, F)
(See course description in Off-Campus Programs-Australia section.)

MISS 311 Cross Cultural Field Experience (3)
Introduction to mission work through pre-approved cross-cultural ministry either overseas or in North America. Guided readings and a project are required in consultation with the instructor. INDS 211 Intercultural Transition and Adjustment is recommended.

MISS 321 World Religions (3, S)
Background, major teachings of Eastern religious and philosophical thought. Emphases on understanding and evaluating non-Western ideas and practices.

MISS 325 **Life in the City** (3, F)
(See course description in Off-Campus Programs-Australia section.)

MISS 341 **Missions in Biblical and Theological Perspective** (S, 05)
An examination of the biblical foundations of missions. The course will explore the extensive Old Testament roots of missions and the New Testament and development. It will build a biblical view of culture, worldview, the nature and function of the church, and other relevant topics. Attention will be paid to the application of appropriate principles of biblical theology, exegesis, hermeneutics, and contextualization and to the development of a diachronic approach to scripture.

MISS 395 **Special Topics in Missions** (3, OD)
Topics offered according to interest and demand.

MISS 191, -2; 291, -2; 391, -2; 491, -2 **Independent Study** (1, 2 or 3 hours)

MUSIC (undergraduate majors and minors)*

Greatbatch School of Music: Ben R. King (director & associate dean for music)

Faculty: Heather M. Armstrong, Shirley S. Close, Judy A. Congdon, Paul T. DeBoer, Robert J. Galloway, Lin He, Mark D. Hijleh, Brandon P. Johnson, Ben R. King, William J. Newbrough, B. Jean Reigles, Gary M. Stith

Part-time & Adjunct: Joanna Bassett, Amanda Young Cox, Anthony Franco, Dolores Gadevsky, Nan Gullo, Virginia Halberg, Kelley Hijleh, Donna Lorenzo, Anton Machleder, James Tiller, Rintaro Wada; others as appropriate from the Buffalo and Rochester Philharmonic orchestras

*See Graduate Bulletin for information regarding graduate curricula, faculty, and courses.

E-mail & Webpage: music@houghton.edu; campus.houghton.edu/orgs/music/

Mission

Within a Christ-centered, challenging, liberal arts education, the Greatbatch School of Music, Houghton College endeavors to produce graduates who, through commitment to musical excellence and to intelligent articulation of the integration of faith and music in their lives, can be effective musical practitioners and advocates in the Christian community and in the broader world.

Accreditation

The Greatbatch School of Music is a full member of the National Association of Schools of Music, and its curricula conform to NASM published standards.

Majors: Music (BA: 38-39 hours), Performance (BMus: hours variable), Music Education (BMus: hours variable), Composition (BMus: hours variable)

Minors: Performance and contract minors available (16 hours).

Liberal arts study in the Greatbatch School of Music, Houghton College

Liberal arts students may study privately on a credit basis, may elect major or minor concentrations in music, and may participate in music ensembles. No more than eight hours of applied music may count toward graduation for students who are not majoring or minoring in music.

Liberal Arts Music Major (BA)

Course requirements (listed in catalog order):

MAP LL10-25	Applied Music (6 hours at or above LL20)	6
MUS —	Ensembles (8 sem., with or w/o credit)	0
MHS 231-334	Music History and Literature I-IV (any 2)	5-6
MLT 211	Music & Listening: an introduction	3
MUS 250	Music & Christian Perspective	2
MTH 227, 228, 327, 328	Aural Skills I-IV	4
MTH 225, 226, 325, 326	Theory I-IV	12
—	Electives in Music (211 or above)	6
Total:		38-39

Senior Capstone Requirement

As a culminating experience in the music major, the degree candidate shall:

1. Prepare and successfully present a public performance of literature on the principal instrument, either as a solo half-recital or as a lecture-recital, with accompanying approved program notes, or
2. Prepare a paper or project examining some aspect of music, either alone or in relationship to another field of inquiry, or
3. Participate in an internship appropriate to the major or majors chosen.

The BA degree in music can be combined with other curricula in a double major. Business administration, communication, and psychology are combinations often selected. These combinations are valuable for those wishing to work in some aspect of the music industry. Suggested course sequences may be found in the Music Student Handbook. An audition is required to establish an appropriate performance course level.

For those interested in full-time Christian service with music as a component, a double major with either Bible or Educational Ministries (see those respective majors) is recommended. With this major, directed electives in church music should be chosen. An audition is required to establish an appropriate performance course level.

BA music majors must maintain membership in a major ensemble (see ensembles section) with or without credit. Choice of ensemble is made with the School of Music director's approval.

The recital attendance requirement is ten performances per semester for BA majors, for any four semesters of residence.

Bachelor of Music - Entrance requirements for music majors

Students planning to pursue Bachelor of Music curricula should request a special music application when applying for admission to the college. An entrance audition in the major performing area is required. A schedule of such auditions is available from the Greatbatch School of Music. A tape-recorded audition may be sent, by permission of the director, in cases where an in-person audition is not possible. All appropriate forms, guidelines, supplemental information, and scholarship information available through the music office. Call 1-800-777-2556 or send e-mail to request these.

Transfer students

Students transferring to Houghton and intending a Bachelor of Music curricula should follow the entrance and application procedures outlined above. In addition, transfer students must complete at least four semester hours at Houghton in their major applied area, regardless of achievement or previous hours completed.

Integrative Studies Requirements - Bachelor of Music Curricula

As part of all bachelor of music curricula, students are required to have 30-36 hours of integrative studies credits, including the following:

FYI (First-Year Introduction)	1
Biblical Literature	3
Principles of Writing	3
Research requirement	0
Foreign Language (see note*)	3-12
Literature of the Western World	3
Western Civilization	4
Lifetime Wellness or Activity course	1
One advanced Bible course or Intro to Christianity	3

*The minimum requirement for Music Education-Instrumental (MEI) and Composition majors is three hours of beginning foreign language. The minimum requirement for Music Education-Voice (MEV) majors, and for Instrumental Performance majors, is six hours of foreign language, normally either German (preferred) or French. The minimum requirement for Vocal Performance majors is 12 hours of beginning language in French and German. Music majors may satisfy these requirements via placement exam, CLEP, or AP exam.

Music Education majors add:

Introduction to Psychology	3
Physics of Music	2

Add additional hours from liberal arts foundation or liberal arts exploration to equal 36 hours. (See Integrative Studies section.)

Bachelor of Music - Senior Capstone Experience

As a culminating experience in any Bachelor of Music curriculum, the degree candidate shall prepare and successfully present one or more public performances of literature on the principal instrument, either a solo half-recital (music education curricula), the junior-senior recital sequence MUS 385/485 (performance curricula), or a full senior composition recital (composition curriculum). For music education majors the successful completion of music student teaching and its attendant seminar (MED 405, 419) are also components of the capstone.

Bachelor of Music in Composition

The composition curricula provides a foundation for graduate degree study leading to college/conservatory teaching credentials in composition and theory, as well as professional and/or commercial compositional activity. Students explore a wide variety of musical styles with an emphasis on understanding compositional techniques which may be less familiar to them, such as those of 20th -century art music. The senior recital requirement may be met by either a full recital of original compositions, or

by a half recital of original compositions plus an original work of significant length and form included in another performance. The composer must serve as a performer or conductor for at least one of the pieces on the senior recital.

Course requirements (listed in catalog order):

MAP CM40-45	Applied Composition	16
MAP LL20+	Applied Music (Required piano: min. 4 hours at or above PI20)	6-18
MAP 485	Senior Capstone: Senior Recital	0
MUS 229	Basic Conducting	2
MUS 329	Choral Conducting or	2
MUS 430	Instrumental Conducting	
MUS—	Ensembles (with or without credit-8 semesters)	0
MED 214	Woodwind Instruments	1
MED 215	String Instruments	1
MED 217	Brass Instruments	1
MED 218	Percussion Instruments	1
MHS 231-334	Music History and Literature I-IV	10
MUS 250	Music & Christian Perspective	2
MUS 356	Vocal Pedagogy (Voice concentration only)	(2)
MTH 227-328	Aural Skills I-IV	4
MTH 225-326	Theory I-IV	12
Advanced theory, chosen from:		6
MTH 458	Sixteenth Century Counterpoint (3) or	
MTH 475	Synthesizer Computer Applications (3) or	
MTH 463	Form and Analysis (3)	
Total:		76-78

Entering Composition majors are expected to have piano proficiency equivalent to completion of at least three hours of PI10, and LL20 in the major applied area. Required graduation levels are minimum 4 hrs of piano at or above PI20 and minimum 6 hrs at or above LL30 in the major applied area.

Music Education

Music Education curricula prepare students for teaching music in grades K-12. Entrance levels and graduation requirements vary for the four curricula as outlined below. These curricula meet all teacher certification requirements of the Board of Regents of the University of the State of New York.

Bachelor of Music in Music Education – Instrumental emphasis (MEI)

Music Courses (listed in catalog order):		Hours
MAP LL20-45	Applied Concentration (min. 9 hrs at or above LL40)	19
MAP VO10	Voice	1
MAP 485	Senior Capstone: Senior Recital	0
MCHU 475	Service Playing, Piano (keyboard concentration only)	(1)
MUS 229	Basic Conducting	2
MUS 430	Instrumental Conducting	2
MED 214-218	WW, St, Br, Prc Instruments	4
MED 330	Keyboard Skills (Keyboard concentration only)	(2)
MUS —	Ensembles (7 sem., with or w/o credit)	0
MUS 223	Jazz Workshop	1
MKBD I-III	Practical Keyboard I-III (Instr. concentration only)	(0-3)
MHS 231-334	Music History and Literature I-IV	10
MUS 250	Music & Christian Perspective	2
MTH 225-326	Music Theory I-IV	12
MTH 227-328	Aural Skills/Ear Training I-IV	4
MTH 367	Elementary Composition and Orchestration	2
Total:		62
Professional Education:		Hours
EDUC 219	Educational Psychology	3
EDUC 217	History and Philosophy of Education or	3
EDUC 218	History & Philosophy of Secondary Education	
EDUC 235	Educating Exceptional Learners	3
MED 210	Field Experience in Music Education	2
MED 227-242	St, Br, Prc, WW Techniques	7
MED 351	Elementary School Methods	2
MED 354	Instrumental Methods	2
MED 405	Student Teaching	12
MED 419	Student Teaching Seminar	2
Total:		36

Bachelor of Music in Music Education – Vocal emphasis (MEV)

Music Courses:		Hours
MAP LL20-45	Applied Concentration (min. 9 hrs at or above LL40)	19

MAP VO 10	Voice (Keyboard concentration only)	(2)
MAP 485	Senior Capstone: Senior Recital	0
MCHU 475	Service Playing, Piano (Keyboard concentration only)	(1)
MUS 229	Basic Conducting	2
MUS 329	Choral Conducting	2
MED 214-218	WW, St, Br, Prc Instruments	4
MED 330	Keyboard Skills (Keyboard concentration only)	(2)
MUS —	Ensembles (7 sem., with or w/o credit)	0
MUS 353	Opera Workshop	1
MKBD I-VI	Practical Keyboard I-VI (Voice concentration only)	0-6
MHS 231-334	Music History and Literature I-IV	10
MUS 219-220	Foreign Language Diction (Voice concentration only)	(2)
MUS 250	Music & Christian Perspective	2
MUS 356	Vocal Pedagogy (Voice concentration only)	(2)
MTH 227-328	Aural Skills/Ear Training I-IV	4
MTH 225-326	Music Theory I-IV	12
MTH 367	Elementary Composition and Orchestration	2
	Total:	63-68

Professional Education:		Hours
EDUC 219	Educational Psychology	3
EDUC 217	History and Philosophy of Education or	3
EDUC 218	History & Philosophy of Secondary Education	
EDUC 235	Educating Exceptional Learners	3
MED 210	Field Experience in Music Education	2
MED 351	Elementary School Methods	2
MED 352	Secondary School Methods	2
MED 405	Student Teaching	12
MED 419	Student Teaching Seminar	2
	Total:	29

Bachelor of Music in Music Education — Alternate Applied Concentration in Composition (MEV-C or MEI-C)

An alternate curricular plan in music education (for students with either vocal or instrumental emphasis) with a concentration in composition is available for qualified students. The Bachelor of Music in Music Education curricula outlined above form the core, with the following changes:

Music Courses:		Hours
MAP	Applied Music (at or above LL 20)	10
MAP CM40-45	Applied Composition	6
Advanced theory chosen from		3
MTH 458	Sixteenth Century Counterpoint (3) or	
MTH 475	Synthesizer Computer Applications (3) or	
MTH 463	Form and Analysis (3)	
MAP 485	Senior Capstone: Senior Recital (Composition)	0

Students pursuing this major must meet the entrance and graduation proficiency requirements cited under the BMus Composition major.

Performance curricula give initial preparation for careers as solo performers in concert, recording, or church fields; as accompanists, as private studio teachers; as professional ensemble members; as junior college or Bible school faculty, or college teachers (after advanced study). Practical experience in teaching is desirable during junior/senior years. Highest level of performance is expected. Course requirements are listed in catalog order:

Bachelor of Music in Performance — Instruments: Brass, Guitar, Strings, or Woodwinds

MAP LL30-45	Major Applied Studies (min. 16 hours at or above LL40)	30
MAP LL20+	Applied minor in major family	4
MAP CM40	Applied (private) composition or	
MAP PN10	Piano	3
MAP 385	Junior Recital	0
MAP 485	Senior Capstone: Senior Recital	0
MUS 229	Basic Conducting	2
MUS 430	Instrumental Conducting	2
MUS —	Ensembles (with or without credit -- 8 semesters)	0
MED 241	Brass Techniques (2) or	
MED 242	Woodwind Techniques (2) or	
MED 227	String Techniques (2)	2
MHS 231-334	Music History and Literature I-IV	10
MLT 450, 451, 452, or 453	Instrumental Literature	2
MUS 250	Music & Christian Perspective	2

MTH 227-328	Aural Skills I-IV	4
MTH 225-326	Theory I-IV	12
MTH 367	Elementary Composition and Orchestration	2
Advanced theory, chosen from:		6
MTH 458	Sixteenth Century Counterpoint (3)	
MTH 475	Synthesizer Computer Applications (3)	
MTH 463	Form and Analysis (3)	
Total:		81

Bachelor of Music in Performance – Organ

MAP OR30-45	Organ(min. 16 hours at or above OR40)	30
MAP PN20+	Piano (at or above PI20)	5
MAP CM40	Applied (private) composition or	
MAP 385	Junior Recital	0
MAP 485	Senior Capstone: Senior Recital	0
MCHU 476	Service Playing	2
MUS 229	Basic Conducting	2
MUS –	Ensembles (with or without credit -- 8 semesters)	0
MHS 231-334	Music History and Literature I-IV	10
MLT 470	Organ Literature	2
MUS 250	Music & Christian Perspective	2
MUS 470	Organ Pedagogy	2
MED 330	Keyboard Skills	2
MTH 227-328	Aural Skills I-IV	4
MTH 225-326	Theory I-IV	12
MTH 367	Elementary Composition and Orchestration	2
Advanced theory, chosen from:		6
MTH 458	Sixteenth Century Counterpoint (3)	
MTH 475	Synthesizer Computer Applications (3)	
MTH 463	Form and Analysis (3)	
Total:		81

Bachelor of Music in Performance – Piano

MAP PN30-45	Piano (min. 16 hours at or above PI40)	30
MAP –	Applied Minor (organ strongly recommended)	5
MAP CM40	Applied (private) composition or	
MAP 385	Junior Recital	0
MAP 485	Senior Capstone: Senior Recital	0
MCHU 475A	Service Playing	1
MUS 229	Basic Conducting	2
MED 330	Keyboard Skills	2
MUS –	Ensembles (with or without credit -- 8 semesters)	0
MHS 231-334	Music History and Literature I-IV	10
MLT 480	Piano Literature	2
MUS 250	Music & Christian Perspective	2
MUS 477	Piano Pedagogy I	2
MUS 478	Piano Pedagogy II	2
MTH 227-328	Aural Skills I-IV	4
MTH 225-326	Theory I-IV	12
MTH 367	Elementary Composition and Orchestration	2
Advanced theory, chosen from:		6
MTH 458	Sixteenth Century Counterpoint (3)	
MTH 475	Synthesizer Computer Applications (3)	
MTH 463	Form and Analysis (3)	
Total:		82

Bachelor of Music in Performance – Voice

MAP VO30-45	Voice (min. 16 hours at or above VO40)	28
MAP PN20+	Piano	6
MAP CM40	Applied (private) composition or	
MAP 385	Junior Recital	0
MAP 485	Senior Capstone: Senior Recital	0
MCHU 416	Hymnology	2
MUS –	Ensembles (with or without credit -- 8 semesters)	0
MUS 229	Basic Conducting	2
MUS 329	Choral Conducting	2
MHS 231-334	Music History and Literature I-IV	10
MLT 460	Vocal Literature	2
MUS 219-220	Foreign Language Diction	2
MUS 250	Music and Christian Perspective	2
MUS 356	Vocal Pedagogy	2
MTH 227-328	Aural Skills I-IV	4

MTH 225-326	Theory I-IV	12
MTH 367	Elementary Composition and Orchestration	2
Advanced theory, chosen from:		6
MTH 458	Sixteenth Century Counterpoint (3) or	
MTH 475	Synthesizer Computer Applications (3) or	
MTH 463	Form and Analysis (3)	
Total:		82

Contract minor in music

A 16-hour contract minor as determined by arrangement with the director of the Greatbatch School of Music. A special course of study is developed to meet the student's specific goals and is signed prior to the taking of the courses. The signed course of study is placed on file in the Academic Records Office.

Performance minor

Sixteen hours in one specific performance area (eight hours at or above LL20 and one year in an appropriate ensemble). A hearing is required to establish an appropriate performance course level. Limited enrollment in some areas based on teacher load availability.

Instrumental voice, violin, viola, violoncello, double bass, guitar,
and Vocal: trumpet, French horn, trombone, euphonium, tuba, flute, oboe,
clarinet, saxophone, bassoon, percussion
14 hours of applied music
2 hours of ensemble

Keyboard: 14 hours of piano (10 hours at or above PN30)
14 hours of organ (6 hours of piano at or above PN10 and
10 hours of organ at or above OR20, or 14 hours of organ at or above
OR20)
2 hours of ensemble

Short Course in Organ

Students interested in developing an organ technique for modest church requirements may elect a number of hours in organ, taking a minimum of one hour of practice per day, five days a week, for one hour credit per semester, or six days' practice a week for two hours' credit. Four semesters of such study will ordinarily suffice, although further work is encouraged. (Regular or intensified study is also available in summer school.)

Summer School

Applied music lessons and composition may be taken for credit during summer school, depending on instructor availability.

Course Descriptions

Applied Study (private lesson fees charged, see Financial Information in this catalog)

Applied (private lesson) study is available only by permission of the appropriate studio faculty, and requires an audition. May be taken for major, minor, or elective credit. Each level number must be taken for a minimum of two credit hours before advancing to the next number. A minimum of two semesters at level (-10, -20, etc.) is required before advancing to the next level. Applied study does not carry Integrative Studies first-level credit.

Course Numbering in Applied Study (all performance areas; LL = instrument code):

MAP LL10, LL15 (1-4, F&S)

Normal level for introductory private study, non-majors. Permission of appropriate studio faculty. For voice: successful completion of MCLV II or permission. For piano: successful completion of MKBD IV or permission.

MAP LL20, LL25 (1-4, F&S)

Normal level for beginning private study, music education majors. Audition required, or prerequisite of LL15 and permission of studio faculty.

MAP LL30, LL35 (1-6, F&S)

Normal level for beginning private study, performance majors; intermediate private study, music education majors, minors, and elective study. Audition required, or LL20-25 as prerequisite. May be repeated for two additional semesters.

MAP LL40, LL45 (1-6, F&S)

Advanced private study for B.Mus. majors. Prerequisite: FH 30-35 and successful Sophomore Review, or permission of studio faculty. Repeatable as required

Areas of Applied Study

Composition

MAP CM40, CM 45 **Composition**

(1-4, F&S)

Original composition in various forms, genres, and styles.

Conducting

MAP CC40, CC45 **Advanced Conducting, Choral**

(1-4, F&S)

Preparation of material for a major choral ensemble and actual experience directing the ensemble.

Prerequisites: MUS 229,329, participation in ensemble, permission of ensemble director

MAP CI40, CI 45 **Advanced Conducting, Instrumental**

(1-4, F&S)

Preparation of material for a major instrumental ensemble and actual experience directing the ensemble.

Prerequisites: MUS 229, 430, participation in ensemble, and permission of ensemble director

Individual Performance Areas

Brass

MAP FH10-FH45 **French Horn**

MAP TR10-TR45 **Trumpet**

MAP EU10-EU45 **Euphonium**

MAP TN10-TN45 **Trombone**

MAP TB10-TB45 **Tuba**

Strings

MAP VL10-VL45 **Violin**

MPA VA10-VA45 **Viola**

MAP VC10-VC45 **Violoncello**

MAP BS10-BS45 **Double Bass**

MAP GU10-GU45 **Guitar**

P10-HP45 **Harp**

Keyboard

MAP HC10-HC45 **Harpsichord**

MAP OR10-OR 45 **Organ**

MAP PN10-PN45 **Piano**

MAP PC10-PC45 **Percussion**

Woodwinds

MAP FL10-FL45 **Flute**

MAP OB10-OB45 **Oboe**

MAP CL10-CL45 **Clarinet**

MAP SX10-SX45 **Saxophone**

MAP BN10-BN45 **Bassoon**

Voice

MAP VO10-VO45 **Voice**

MAP SP10-SP45 **Specialized Study**

MAP 385 **Junior Recital**

MAP 485 **Senior Capstone: Senior Recital**

(0, F&S)

Church Music

MCHU 301 **Church Music Administration**

(2, F04, 06)

Principles and administration of church music including resources, recruitment, children's choirs, handbell choirs, and working with pastoral staff and congregation.

MCHU 416 **Introduction to Hymnology**

(2, F 05, 07)

An introductory history of hymnology from the early Christian church to the present. An investigation of hymnic poetic and musical styles. Stress upon familiarity with the hymnal.

MCHU 451 **Music and Worship**

(3, S06)

Music and liturgical practices in the history of the Christian Church, and consideration of issues in contemporary worship practice in light of church history and Christian theology.

MCHU 475 **Service Playing, Piano**

(1, OD)

Development of keyboard skills with special application to piano playing in church service: melody harmonization and reharmonization, hymn playing and transposition, accompanying (solo and choral), extemporization in various styles. Permission of instructor. Required of piano majors and piano & organ concentrations within music education curricula.

MCHU 476 **Service Playing, Organ**

(2, OD)

Development of keyboard skills with special application to organ playing in church service: melody harmonization, bass realization, hymn playing and transposition, accompanying (solo and choral), extemporization in various styles. Permission of instructor.

Composition (see Applied Study above for private composition courses)

MTH 367 **Elementary Composition and Orchestration**

(2, F&S)

Composition and orchestration of smaller forms up to and including the sonata. Students progress in formal and technical skill by ability. Public performance encouraged. Prerequisite: MTH 326 or permission.

Conducting (see Applied Study above for advanced conducting courses)

MUS 229 **Basic Conducting**

(2, F&S)

Basic conducting, rhythmic development, baton technique, three hours per week. Prerequisite: MTH 225

MUS 329 Choral Conducting (2, F)
Elements of choral conducting; training of choirs; rehearsal techniques; preparation of choral scores. Three hours per week. Prerequisite: MUS 229

MUS 430 Instrumental Conducting (2, S)
Conducting laboratory band or orchestra; methods of presenting band and orchestral materials. One and one-half hours with laboratory band or orchestra per week. Prerequisite: MUS 229

Ensembles

For non-music majors

All college students are invited to participate in the various musical organizations. Credit is awarded non-music majors for the various available ensembles (normally one credit per semester), and an academic grade is recorded. By special permission of the conductor, a student may participate in a major ensemble without credit. Chamber ensembles are also formed according to demand, either with or without credit.

Non-music majors may satisfy the three-credit first-level integrative studies requirement in fine arts by several semesters' participation in a major ensemble. Ensembles which carry integrative studies credit include Men's Choir (MUS 144), Women's Choir (MUS 145), Chapel Choir (MUS 147), Symphonic Winds (MUS 137), Philharmonia (Orchestra) (MUS 143), and College Choir (MUS 149). Completion of the IS fine arts requirement normally requires two years' participation in a major ensemble. It is important that students desiring IS credit for ensemble participation enroll in the course numbers listed above and **not** in the 200- or 300-level numbers used by music majors and others not seeking IS credit for this experience.

Membership in major ensembles is on a yearly basis; students enrolled in the fall semester are also expected to participate in that ensemble in the spring semester. A director may occasionally grant an exception to the foregoing, or permit joining for only the second semester.

Non-music majors may participate in any music ensemble, by audition or permission of the director. However, ensembles other than the five major groups listed above (with 100-level course numbers) will count only as elective credit, and not for integrative studies credit.

For music majors

One major ensemble (MUS 244, 245, MUS 247, MUS 337, MUS 343, or MUS 349) is required of music majors during each semester of residence. The time spent in such experience is three or five hours per week per ensemble. Woodwind, brass, and percussion majors must be members of both orchestra and symphonic winds unless excused by the director or one of these ensembles with the concurrence of the associate dean for music.

Credit is allowed for membership in the second ensemble. Music education majors who elect the combined curriculum must participate in both instrumental and choral ensembles in the course of their four years. Those who elect the vocal curriculum are excused from participating in instrumental ensembles.

Major ensembles; † = course number for first-level integrative studies credit

Audition required. By permission of the director.

MUS 144 **Men's Choir** †

MUS 244 **Men's Choir**

MUS 145 **Women's Choir** †

MUS 245 **Women's Choir**

MUS 147 **Chapel Choir** †

MUS 247 **Chapel Choir**

MUS 137 **Symphonic Winds (Touring)** †

MUS 337 **Symphonic Winds (Touring)**

MUS 143 **Philharmonia (Orchestra) (Touring)** †

MUS 343 **Philharmonia (Orchestra) (Touring)**

MUS 149 **College Choir (Touring)** †

MUS 349 **College Choir (Touring)**

(1/1, F&S)

(0, 1, F&S)

(1/1, F&S)

(0, 1, F&S)

(1/1, F&S)

(*0, 1, 2 F&S)

(1/1, F&S)

(*0, 1, 2 F&S)

(1/1, F&S)

(*0, 1, 2, F&S)

**Ordinarily one credit first semester; two credits second semester if touring.*

MUS 223 Jazz Workshop (Houghton Jazz) (0, 1, F&S)
Preparation and presentation of a variety of jazz repertoire, including swing, combo, and modern styles. Permission of director.

MUS 226 Flute Ensemble (0, 1, F&S)
Preparation and presentation of repertoire for flute ensemble. Permission of director.

MUS 255 Brass Ensemble (0, 1, F&S)
Preparation and presentation of repertoire for brass ensemble. Permission of director.

MUS 457C Handbell Choir

(0, 1, F&S)

Preparation and presentation of repertoire for handbells. Permission of director.

MUS 353 Opera Workshop

(1, S)

Preparation and presentation of operatic scenes and complete works from the standard repertoire. Some musical comedy. Study of techniques of stage movement and stagecraft. Three hours in rehearsal per week; some outside rehearsal. Permission of director.

MUS 447, 448 Piano Ensemble

(1/1, F&S)

Performance of keyboard ensemble repertoire, Renaissance to 20th century. Duet and multi-piano literature. Emphasis on style and special ensemble problems. Fulfills ensemble requirement for junior and senior applied piano (performance) majors. Four hours outside practice.

MUS 455 Chamber Singers

(1, F)

Practical experience singing in a small group of 12 to 16 performers. Three hours in rehearsal per week. Permission of director.

MUS 457 Chamber Ensembles

(1/1, F&S)

Ensembles organized to include interested students. Small groups rehearse three hours per week. Standard literature for handbells, percussion, strings, woodwinds, brass, percussion, guitar, etc., is studied with a view toward public performance during the year. Permission of appropriate ensemble director.

Group Instruction: Practical Keyboard

Elementary and intermediate piano, taught in six semesters of Practical Keyboard. One hour class, six hours practice weekly. Emphases: technique, repertoire, and functional skills of sight-reading, transposition, improvisation, and accompaniment. Placement level determined by audition. Piano levels 222, 225, 226, 227 must be taken by all music education non-keyboard majors except instrumental majors, regardless of repertoire level at audition.

MKBD I Practical Keyboard I

(1, F&S)

Basic technique, rhythm, tone conception, articulation, fingering. Pentachord patterns, sight reading, transposition. Tetrachord scales. Simple I-V harmonization. Grade 1 repertoire.

MKBD II Practical Keyboard II

(1, F&S)

Basic work as in MKBD 110-111; pedaling and phrasing. Easier major scales, two rhythms, and arpeggios (hands separate). I-IV-V progressions and harmonization with simple accompaniments; IV7 by-ear chording. Grade 1 sight reading. Grade 2 repertoire.

MKBD III Practical Keyboard III

(1, F&S)

Easier major scales, hands together, two rhythms; easier arpeggios and minor scales, hands separate. Major/minor primary triad patterns and harmonization, by-ear work with varied accompaniments. Grade 2 sight reading; simple improvisation; easy hymns. Grade 3 repertoire.

MKBD IV Practical Keyboard IV

(1, F&S)

Major/minor scales, arpeggios, triads; hands together. Major/minor progressions, harmonization; by-ear work using secondary chords and expanded accompaniments. Grade 2-1/2 sight reading; grade 3 transposition, improvisation; hymns, songs. Repertoire such as Bach short preludes and easy sonatas.

MKBD V Practical Keyboard V

(1, F&S)

All major/minor scales and arpeggios, hands together, three rhythms. Progressions, harmonization; by-ear work using secondary chords and dominants in expanded patterns. Grade 3 sight reading; four-part transposition. Repertoire: easier Bach inventions, allegro sonatina movement.

MKBD VI Practical Keyboard VI

(1, F&S)

All scales and arpeggios, four rhythms. Harmonization and by-ear work with advanced chords and accompaniments. Hymns and patriotic songs in pianist styles with transposition. Choral (including open vocal score) and art song accompaniment. Grade 4 sight reading. Repertoire such as Bach inventions and easy classic sonatas.

Group Instruction: Voice Class**MCLV I Class Voice I**

(1, F&S)

Study of posture, breath control, tone production, and diction. Textbook used. Includes both group and individual singing of simple vocalises and songs in English. Hearing required. Six hours practice.

MCLV II Class Voice II

(1, F&S)

Continued study of basic vocal techniques. Emphasis on individual singing of vocalizes and songs in English. Introduction to Italian diction. Hearing required. Six hours practice.

Music Education

MED 203 Music in Therapy

(3, OD)

Introduction to music therapy as a profession and to applying music as a therapeutic method. History and present state of music therapy; music's contribution to business, industry, schools. Expected: some skill at reading music and some skill at the piano.

MED 210 Field Experiences in Music Education

(2, M)

Students participate in three weeks of field experiences in high-need school districts working as teachers' assistants and meet in a weekly seminar to discuss their experiences. Designed to fulfill the New York state field experience mandate; students earn 75-90 hours of field experience credit taken during freshmen or sophomore years. Students may opt to take EDUC 240, Teaching in Urban American, in lieu of this course. (See Greatbatch School of Music Handbook for detailed explanation of Field Experience and other Certification requirements.)

MED 214 Woodwind Instruments

(1, F&S)

Basic techniques of playing flute, oboe, clarinet, saxophone, and bassoon; acoustical, historical, and practical understanding of these instruments. Two hours class, two hours practice per week.

MED 215 Stringed Instruments

(1, F&S)

Basic techniques of playing violin, viola, 'cello, and double bass; acoustical, historical, and practical understanding of these instruments. Two hours class, two hours practice per week.

MED 217 Brass Instruments

(1, S)

Class instruction in various brass instruments, to acquaint music education majors with basic problems and teaching techniques of the brasses. Includes study on at least three brass instruments. Two hours class, two hours individual practice per week.

MED 218 Percussion Instruments

(1, S)

Snare drum, timpani basics, bass drum, mallet instruments, cymbals, smaller instruments of the battery; prepares music education majors to teach percussion instruments in public schools. Concentration on snare drum: coordination of hands; counting and playing rhythm. Two hours class, two hours individual practice per week.

MED 227 String Techniques

(2, S)

Preparation for teaching violin, viola, 'cello, and double bass through the high school level. Development of playing and demonstration abilities. Survey of methods and materials. Two hours class, three hours practice. Prerequisite: MED 215

MED 240 Percussion Techniques

(1, S)

Preparation for teaching percussion instruments through high school level. Development of playing skills on timpani, mallet instruments, drums. Survey of percussion ensemble music and other materials. One class per week, three hours practice. Prerequisite: MED 218

MED 241 Brass Techniques

(2, F)

Preparation for teaching brass instruments through the high school level. Development of playing and demonstration abilities. Survey of methods and materials. Two hours class, three hours practice. Prerequisite: MED 214

MED 242 Woodwind Techniques

(2, S)

Preparation for teaching woodwind instruments through the high school level. Development of playing and demonstration abilities. Survey of methods and materials, two class hours, three hours of practice. Prerequisite: MED 214

MED 330 Keyboard Skills

(2, F or S)

Functional piano class required of piano and organ majors and concentrations within music education curricula. Emphases: sight reading, harmonization, transposition, accompaniment, score reading, improvisation. Jury exam. Six hours weekly practice. Prerequisite: Piano level 237

MED 351 Elementary School Methods

(2, F)

Preparation for teaching general music in kindergarten through sixth grades. Particular emphasis upon preparation to teach according to the New York State Learning Standards for the Arts.

MED 352 Secondary School Methods

(2, S)

Preparation for directing secondary school (grades 7-12) choral ensembles, and for teaching secondary level general music and other non-performance music classes. Particular emphasis upon preparation to teach according to the New York State Learning Standards for the Arts.

MED 354 Instrumental Methods

(2, S)

Instrumental music program in public schools. Organization and training of school orchestras, bands, and instrumental classes; pedagogical methods of the standard band and orchestra instruments. Particular emphasis on preparation to teach by the New York State Learning Standards for the Arts.

MED 405 Student Teaching in Music (12, F)
Practical experience teaching music in public schools. Two placements of approximately seven weeks each, one on the elementary level (grades K-6), and one on the secondary level (grades 7-12). Criteria for approval: Completion of required professional education coursework as per emphasis, cumulative gpa of at least 2.50, documentation of at least 100 hours of field experience, and approval by the Study Teaching Committee.

MED 419 Student Teaching Seminar (2, F)
Seminar during and following student teaching, dealing with effective teaching practices including problems of motivation, group management, curriculum development, and musical education goals.

Music History and Literature

MHS 222 Introduction to Film Music (3, OD)
History and aesthetics of music written for Hollywood films. Exploration of the sociology, philosophy, psychology, and technique of film music. Review of the elements of musical style, with particular emphasis on their relation to the dramatic aspects of film. Written work emphasizing critical analysis of the use of music in various American film genres.

MHS 231 Music History and Literature I (2, F)
Development of music from earliest times through the Renaissance. Principles of listening and style analysis. Literature and style of various schools. Listening, examination of scores, performance, research reports, lectures, discussion.

MHS 232 Music History and Literature II (2, S)
Continues MHS 231, from late Renaissance through Baroque (1750).

MHS 254 Music of World Cultures (3, OD)
Survey of Asian, Latin American, African, European music; listening experience, with research and analysis. Introduction to ethnomusicology, to broaden student's perspective. Recommended for those interested in mission field or intercultural relations.

MHS 333 Music History and Literature III (3, F)
Development of early classic through romantic music styles in cultural context. Principles of listening and style analysis. Introduction to basic bibliography and research. Principles of a Christian aesthetic.

MHS 334 Music History and Literature IV (3, S)
From late romantic through 20th century styles. Emphasis on individual research, writing, and class presentations. Evaluation of musical-cultural trends from a Christian perspective.

MLT 113 Masterworks of Sight and Sound (3, OD)
Introduction of art and music from classic age to present; concert and gallery attendance included. Satisfies fine arts requirement.

MLT 211 Music and Listening: An Introduction (3, F&S)
Introduction to the study and enjoyment of classical masterpieces in music: recordings, outside biographical readings, reports on current musical events.

MLT 450, 451, 452, 453 Brass, Woodwind, String and Percussion Literature (2, OD)
Survey of standard chamber, solo, and orchestral excerpt repertoire from the Baroque to the present. Emphasis on stylistic and interpretive traits, pedagogical issues and repertoire selection, major composers and representative works.

MLT 460 Vocal Literature (2, alt. S06)
Survey of standard vocal repertoire from the High Baroque to the present. Emphasis on stylistic and interpretive traits, pedagogical issues and repertoire selection, major composers and representative works.

MLT 470 Organ Literature (2, OD)
An examination of the history of the development of the organ and its literature from the middle ages to the present. Examination of style and structure and their impact on performance.

MLT 480 Piano Literature (2, S05)
An examination of the history of the development of the piano and its literature, including music written for early keyboard instruments which today is accepted as part of the piano repertoire. Emphasis on 18th, 19th, and 20th century repertory. Examination of style and structure and their impact on performance. Chamber music with piano, concerti, solo piano literature.

Music Pedagogy and Specialized Courses

MUS 219, 220 Foreign Language Diction (1/1, F&S)
Basic diction facility in English, Italian, German, French. Required of voice majors and concentrations (any curriculum); elective for others. Two class meetings per week.

MUS 250 Music and Christian Perspective: An Introduction (2, F)
Introduction to music studies in the context of Christian worldview. Examination of Biblical, philosophical, and scientific bases for human creativity. Discussion of music's role in society and in the liberal arts context. Orientation to college-level work in music, including diagnostic examination of background knowledge.

MUS 330 Keyboard Skills (2, F or S)
Functional piano class required of piano and organ majors and concentrations within music education curricula. Emphases: sight reading, harmonization, transposition, accompaniment, score reading, improvisation. Jury exam. Six hours weekly practice. Prerequisite: Piano level 237

MUS 356 Voice Pedagogy (2, S05)
Methods of voice production and development as preparation for teaching; emphases on teaching and evaluation. Attention to proper selection of music. Two class hours per week; junior and senior year.

MUS 477 Piano Pedagogy I (2, F05)
Preparation for teaching beginning piano students. Study of beginning piano methods and literature, including adult and preschool materials. Projects in relevant teaching methods such as Suzuki, Kindermusik, Orff, and Dalcroze. Guidelines for development and maintenance of private piano studio and to assist in the purchase and maintenance of a piano. Observation of studio and group teaching.

MUS 478 Piano Pedagogy II (2, S06)
Practicum for teaching community students, with presentation of a public recital for children and a masterclass for adults at end of the semester. Practical Keyboard Practicum. Study of intermediate piano methods and repertoire, a survey of professional organizations and publications for the private piano teacher, and a study of the writings and teaching ideals of great piano pedagogues. Prerequisite: Piano Pedagogy I

MUS 470 Organ Pedagogy (2, OD)
Examination of teaching methods, materials, and technical approaches for the organ. Guided teaching in private and class settings. Required for organ performance majors.

MUS 191, 192; 291, 292; 391, 392; 491, 492 Independent Study (1, 2, or 3)

MUS 395 Special Topics (1-3, OD)

Music Theory

MTH 225 Theory I (3, F)
Basic materials of tonal music. Correlated keyboard, musical analysis and original composition. Corequisite: MTH 227 or permission of instructor

MTH 226 Theory II (3, S)
Continuation of tonal musical materials. Correlated keyboard, musical analysis and original composition. Prerequisite: MTH 225; Corequisite: MTH 228, or permission of instructor

MTH 227 Aural Skills I (1, F)
Beginning work in sight singing, ear training, and dictation. Two hours class per week, plus independent computer- and tutor-assisted instruction. Corequisite: MTH 225 or permission

MTH 228 Aural Skills II (1, S)
Continued work in diatonic sight singing, ear training, and dictation. Two hours per week, plus independent computer- and tutorial-assisted instruction. Prerequisite: MTH 227; corequisite: MTH 226, or permission

MTH 325 Theory III (3, F)
Analysis and composition of eighteenth-century counterpoint. Harmonic materials of the nineteenth century. Analysis of literature to Debussy. Form study and original composition. Prerequisite: MTH 226; co-requisite: MTH 327, or permission of instructor

MTH 326 Theory IV (3, S)
Art music of the 20th century, integrating basic materials and processes of selected western vernacular and non-western musics. Prerequisite: MTH 325; co-requisite: MTH 328, or permission of instructor.

MTH 327 Aural Skills III (1, F)
Chromatic sight singing, ear training and musical dictation. Two hours per week, plus independent computer- and tutor-assisted instruction. Prereq: MTH 228; Coreq: MTH 325, or permission.

MTH 328 Aural Skills IV (1, S)
Advanced sight singing, ear-training and dictation using modal, 20th century, American vernacular, and world music materials. Two hours per week, plus independent tutor-assisted instruction. Prerequisite: MTH 327; corequisite: MTH 326, or permission of instructor.

MTH 458 **Sixteenth Century Counterpoint** (3, F05)
A study of the principles of Counterpoint in western music, with an emphasis on models from 16th century vocal polyphony. Analysis of repertoire, original compositions. Prerequisite: MTH 326 or permission.

MTH 463 **Form and Analysis** (3, F04)
Structural and harmonic analysis of musical form through simple and compound song form, variation, rondo, sonata forms. Contrapuntal forms of the invention, chorale prelude, fugue, canon. Study of the analysis techniques of Schenker, La Rue, and others.

MTH 475 **Synthesizer/Computer Applications** (3, OD)
Introduction to electronic musical aesthetics, synthesis, and MIDI techniques. Hands-on composition projects utilizing computers and synthesizers. Prerequisite: MTH 367, Elementary Composition and Orchestration (see Composition heading for course description), or permission of instructor.

PASTORAL & CHURCH MINISTRIES PROGRAM (AAS)

(See Adult Learning Opportunities section)

PASTORAL MINISTRY

(see Religion, Ministerial Concentration)

PHILOSOPHY (major and minor)

Department of Religion and Philosophy: J. Michael Walters, chair;

W. Christopher Stewart, program coordinator

Faculty: Bradley Beach, Carlton Fisher, Benjamin Lipscomb, W. Christopher Stewart

Major: (25 hours)

The major must include:

PHIL 241, 242 History of Philosophy I, II	8
PHIL 223 or 224 Critical Thinking or Formal Logic	2
400 level courses in PHIL	6
PHIL 495 Senior Capstone: Philosophy Colloquium	1

Additional hours in philosophy 8

General Information:

To philosophize is to think deeply about a variety of fundamental questions posed by human experience. Though the answers to these questions are interconnected, they can be divided into three areas of investigation: epistemology (the nature of truth and knowledge), metaphysics (the nature of reality — persons, the world, and God), and axiology or ethics (the values or ends involved in morality, politics, and aesthetics — the nature of the good). It is the task of finding answers to these sorts of questions rather than some specific set of answers to these questions that constitutes philosophy. A person's most basic philosophical commitments shape his or her overall perspective or point of reference intellectually.

In addition to improving one's understanding of the fundamental intellectual commitments at the core of a person's worldview, a philosophy major significantly enhances one's basic intellectual skills. For these reasons, a philosophy major is excellent pre-professional training. Philosophy students pursue careers in a wide range of fields, including law, education, ministry, medicine, business, public administration, and writing.

Minor: The minor consists of 12 hours of course work in philosophy, and must include at least four hours of history of philosophy (either PHIL 241 or 242).

Course Descriptions

PHIL 200 **Knowledge and Reality** (2, F, S)
Overview of the contours of a world and life view coupled with more detailed critical analysis of perennial and foundational issues in epistemology (the nature of truth and knowledge) and metaphysics (the nature of reality: persons, the world, and God), such as our capacity to know, perform free actions, or survive death.

- PHIL 201 Ethics** (2, F, S)
Critical analysis of alternative theoretical frameworks of historical significance in terms of which humans have struggled to understand the nature of goodness and the process of ethical decision making, with close attention to the nature and sources of character (personal excellence: virtue and vice) and the foundations of morality.
- PHIL 202 Metaphysics, Morality, and Mind** (4, F, S)
Critical analysis of the contours of a world and life view coupled with more detailed critical analysis of perennial and foundational issues in epistemology (the nature of truth and knowledge), metaphysics (the nature of reality: persons, the world, and God), and ethics (the nature of goodness and the process of ethical decision making, with close attention to character--virtue and vice--and the foundations of morality).
- PHIL 210 Community, Ideology, and the Environment** (3)
(See description under Off-Campus Programs-Adirondack section.)
- PHIL 223 Critical Thinking** (2, F, S)
Introduction to basic argument analysis and informal fallacies, with special emphasis on how to recognize, analyze, and evaluate arguments expressed in everyday, ordinary language.
- PHIL 224 Formal Logic** (2, F)
Introduction to deductive inference via the formal languages of modern philosophical logic. Will include truth functional propositional logic and quantified predicate calculus, with perhaps some modal logic.
- PHIL 241 History of Philosophy I: Ancient and Medieval** (4, F)
Survey of intellectual history from early Greek through late Medieval thought. Includes Pre-Socratics, Plato, Aristotle, Epicureans, Stoics, Augustine, Aquinas, Scotus, and Ockham. Readings include both primary and secondary sources.
- PHIL 242 History of Philosophy II: Modern and Contemporary** (4, S)
Survey of intellectual history from early modern through twentieth century and postmodern thought. Includes Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume, and Kant, as well as major figures and movements from the 19th and 20th centuries. Readings include both primary and secondary sources.
- PHIL 250 Aesthetics** (2, OD)
A philosophical study of art and aesthetic experience. The nature of beauty, the nature of art, the interpretation and aesthetic evaluation of art, and art in its ethical dimension are topics covered via readings drawn from historical and contemporary sources. Though the visual arts of painting and sculpture will be the focus, other art forms, such as music, dance and drama, are examined as well.
- PHIL 260 Introduction to Political Thought** (3, F)
Introduces students to Western political thought from the ancient to the modern world through a close reading of important thinkers. By considering problems of community, obligation, order, justice, liberty, and freedom, the course equips students for careful normative reflection on public life.
- PHIL 300 Christianity and Postmodernism** (3, F)
(See course description in Off-Campus Programs-Australia section.)
- PHIL 315 Theory of Knowledge** (4, S05)
Examination of contemporary perspectives on the nature and limits of human knowledge, as well as the concept of truth.
- PHIL 326 Ethical Theory** (4, S06)
Analysis of traditional normative theories (formalism, consequentialism, and virtue ethics) through the reading of primary sources. Also explores developments in contemporary moral theory.
- PHIL 350 Reason and Religious Belief** (2, F)
Analytic approach to philosophic thought regarding some of the concepts and beliefs of Christian theism. Attention given to arguments for the existence of God, the problem of evil, and the roles of faith and reason in religious belief.
- PHIL 360 History and Philosophy of Science** (4, S05)
Survey of the rise of western science from its origins in antiquity to the present, addressing both the content and methods of science in each major period. Major figures considered include Aristotle, Galen, Copernicus, Kepler, Galileo, Descartes, Boyle, Newton, Lavoisier, Darwin, and Einstein. A wide range of science fields will be surveyed and specific attention is given throughout to the interrelationships between science and other disciplines, the relationship between science and culture, and the interaction of science and religion.
- PHIL 412 Special Topics** (2, 3, or 4, OD)
Examination of specific movements or particular problems in philosophy, or themes in the history of ideas.

PHIL 414 Major Figures	(2, 3, or 4, OD)
In-depth study of the thought of one or more figures with an emphases on critical analysis and evaluation of primary source material.	
PHIL 191, -2; 291, -2; 391, -2; 491, -2 Independent Study	(1, 2 or 3)
PHIL 495 Senior Capstone: Philosophy Colloquium	(1, S)
A required capstone course for philosophy majors to be completed in one of the final two semesters of the student's college experience. Prerequisite: A minimum of 18 hours in philosophy.	
PHIL 496 Honors in Philosophy	(3, S)

PHYSICAL EDUCATION (majors and minors)

Department of Physical Education/Exercise Studies & Recreation/Leisure:

William R. Swanson, chair

Faculty: Deanna Hand, Sandra Johnson, Thomas R. Kettelkamp, Beth Markell, Scott Mills, Trini Rangel, William R. Swanson, Matt Webb, Brad Zarges

Majors: Physical Education (teaching K-12: 38 hours in the major; 30 in education; 12 hours in pre/co-requisites),

Physical Education (non-teaching: 24 hours; 8 hours in pre/co-requisite)

Physical Education (physical fitness: 36 hours; 18 hours in pre/co-requisites)

Minor: Physical Education (16 hours)

Physical Education with focus on athletic training (14 hours)

Teaching Option

The physical education major leading to New York State teacher certification requires 38 hours in physical education courses and 30 in education block courses. Nine of these hours shall be earned in activity laboratories (AL).

Pre-/Co-requisites

BIOL 103 Fundamentals of Biology	4
BIOL 217, 218 Human Anatomy and Physiology	8
Total:	12

Core Requirements

PHED 212 Foundations of Physical Education	2
PHED 237 Holistic Health	3
PHED 239 Principles & Practices of Coaching	2
PHED 246 Care, Prevention and Management of Athletic Injuries ..	3
PHED 248 Adaptive Phys. Education and Fitness Program	2
PHED 276 Motor Development and Learning	3
PHED 315 Psychosocial Aspects of Phys Educ & Sports	2
PHED 320 Measurement and Eval in Phys Education	3
PHED 330 Physiology of Exercise	3
PHED 341 Kinesiology	3
PHED 401 Organization and Mgmt of Phys Education	3
Total:	29

Activities

PHED 261, 262 Teaching Team Sports	2
PHED xxx Swimming (PHED 102, 228, or 265)	1
PHED 221 Educational Gymnastics	1
PHED 226A Movement & Rhythmic Fundamentals	3

An Outdoor Component (one credit hour) chosen from the following:

REC 102A Initiatives	1
REC 109 Highlander Adventure Program	2
REC 227 Outdoor Leadership Training	3
REC 240 Administration of Organized Camps	3
REC 266 Outdoor Living Skills	2
REC 330 Methods/Mat'ls of Outdoor Educ	3
*PHED 220 Adventure Sports	3

And PHED 251 or 252 Teaching Lifetime Sports **1 or**
PHED 220 Adventure Sports 3

Total: 9

*Can be taken as Activity or Outdoor Component. If taken as Outdoor Component, must also take PHED 251 or 252.

Education Requirements

EDUC 217 History and Philosophy of Education	3
(or EDUC 218 History and Philosophy of Secondary Education....3)	
EDUC 240 Teaching in Urban America	3
EDUC 313 Language & Literacy in the Content Area	3
(or EDUC 328 Foundations of Language and Literacy...3)	
PHED 225 Teaching Elementary Physical Education	3
PHED 302 Teaching Secondary Physical Education	3
EDUC 226 Multimedia Technologies	1
PHED 411 Senior Capstone: Issues Seminar In Physical Education	2
PHED 405 and 407 Student Teaching	12
Total:	30

Physical Education Non-teaching Option

The physical education non-teaching major requires 24 hours in physical education courses. Six of these hours shall be earned in activity laboratories.

Pre-/Co-requisites

BIOL 103 Fundamentals of Biology	4
BIOL 217 Human Anatomy & Physiology	4
Total:	8

Major Requirements

PHED 212 Foundations of Physical Education	2
PHED 226 Teaching Elementary Physical Education	3
PHED 237 Holistic Health	3
PHED 302 Teaching Secondary Physical Education	3
(Plus 7 hours from any of the courses listed under	7
"core requirements" for the physical education teaching option)	
Total:	18

Activities 6
Six hours are required from any of the courses listed under "activities" for the physical education teaching option.

Physical Education Minor: The physical education minor (18 hours) consists of the following:

Pre-/Co-requisites

PHED 101 Lifetime Wellness	1
PHED 102 Physical Education	1
PHED 237 Holistic Health	3
PHED 212 Foundations of Physical Education	2
Plus 11 hours from courses numbered above 200*	11
(*Not less than two of these 11, or more than five, may be in activity laboratories. Fundamentals of Biology [BIOL 103] is highly recommended.)	
Total:	18

Athletic Training Minor: The physical education minor with a focus in athletic training (15 hours) is comprised of the courses listed below. This minor is designed to enhance the student's skills in preventing, evaluating, and treating various athletic injuries.

Required classes

PHED 242 Techniques of Taping and Bracing	1
PHED 246 Care, Prevention, and Management of Athletic Injuries	3
PHED 247 Recognition and Evaluation of Athletic Injuries	3
6 hours from the following courses:	6
PHED 348 Therapeutic Exercise Mgmt. of Injuries (3)	
PHED 330 Physiology of Exercise (3)	
PHED 341 Kinesiology (3)	
Choose 2 hours of electives from any Physical Education theory	
course 211 or above	2
Total:	15

Physical Fitness

The physical fitness option is a non-teaching option requiring 33 credits in physical education plus two hours in Outdoor Living Skills. One of the credits shall be earned in activity laboratories (AL). Also included is a four - to 12-credit internship.

Pre-/Co-requisites

BIOL 103 Fundamentals of Biology	4
BIOL 217, 218 Human Anatomy and Physiology	8
CHEM 207 Introduction to Nutrition	3

PSY 111 Introduction to Psychology	3
Total:	18
Core Requirements	
PHED 212 Foundations of Physical Education	2
PHED 225 Teaching Elementary P.E.	3
At least 2 hours from	2
PHED 226 Movement and Rhythmic Fundamentals	3
PHED 251 Teaching Lifetime Sports I	1
PHED 252 Teaching Lifetime Sports II	1
PHED 302 Teaching Secondary Physical Education	3
PHED 237 Holistic Health	3
PHED 246 Care, Prevention, and Management of Athletic Injuries	3
PHED 248 Adaptive P.E. and Fitness Programs	2
PHED 276 Motor Development and Learning	3
PHED 320 Measurement and Evaluation in Phys. Ed.	3
PHED 330 Physiology of Exercise	3
PHED 341 Kinesiology	3
PHED 350 Health and Physical Fitness for Senior Adults	2
PHED 401 Organization & Mgmt of Phys Ed & Athletics	3
PHED xxx Swimming (PHED 102 or 228 or 265)	1
REC 266 Outdoor Living Skills	2
Total:	33
Senior Capstone	
PHED 420 Internship	4-12
or PHED 423	1
and PHED 424	1
and PHED 426	2
Competencies in CPR and first aid	

Coaching Registration

Completion of the teaching certification option meets all requirements for New York registration for coaching interscholastic sports in the public schools. Students in other majors/minors interested in coaching registration should take:

PHED 239 Principles and Practices of Coaching	2
PHED 246 Care, Prevention, and Management of Athletic Injuries ..	3
PHED 276 Motor Development and Learning	3
PHED 330 Physiology of Exercise	3
PHED 341 Kinesiology	3
Activity lab:	
PHED xxx Teaching Team Sports or Teaching Lifetime Sports	1
Total:	15

Course Descriptions

PHED 101 **Lifetime Wellness** (integrative studies) (1, F&S)

Health-related physical fitness, self-evaluation, and individualized exercise programs.

PHED 102 **Physical Education** (integrative studies) (1, or .5 for non-PE majors F&S)

Physical coordination and conditioning; basic skills; appreciation for physical activity and lifetime fitness in Christian life. Note: several REC courses may be used in lieu of this for integrative studies credit.

PHED 103, 104 **Adaptive Physical Education** (integrative studies) (1/1, F&S)

For those who have some physical handicap or are limited by lack of coordination and basic training. Prerequisite: PHED 101 or 101M. Course objectives same as PHED 102. Remedial work included. Two hours applied.

PHED 105, 106 **Physical Education** (1/1, F&S)

Designed for students repeating PHED 102 in a section offering activities not included under credit previously received.

PHED 212 **Foundations of Physical Education** (2, S)

Basic philosophical principles, history, scientific foundation, and contemporary significance of physical education; educational aims and objectives; physical education in the modern school curriculum.

PHED 220 **Adventure Sports** (Activity Lab) (3, M)

Experiential learning of a variety of adventure sports (backpacking, climbing, mountain biking, kayaking/rafting) in canyons and of the Adirondack or Rocky Mountain regions; teaching experience and leadership development, fitness training for lifetime benefits; personal and spiritual growth; environmental stewardship; principles of aerobic conditioning; developing training programs. (Meets PHED 102 requirement.)

- PHED 221 Educational Gymnastics I** (Activity Lab) (1, F04)
Introduction to teaching gymnastics in a K-12 curriculum; floor exercise, tumbling, basic skills for limited apparatus; routine development; movement education concepts; teaching methods; safety and spotting. Three hours of field experience required.
- PHED 222 Traditional Gymnastics II** (Activity Lab) (1, OD)
Olympic style progressions for floor exercise and all apparatus, enhance performance base established in Educational Gymnastics; develop confidence and proficiency with techniques; professional involvement. Permission from instructor.
- PHED 225 Teaching Elementary Physical Education** (3, F)
Student development and learning styles, teaching methods, analysis of one's own teaching, classroom management, evaluation of students' performance, and preparation of curriculum, unit, and lesson plans for the elementary level. Fifteen hours of field experience required.
- PHED 226 Movement and Rhythmic Fundamentals** (3, S)
A conceptual approach to human movement; techniques for dealing with force, time and space, and flow as they relate to movement; stunts and gymnastics; the use of leap-up experiences, skills, and rhythms in games and teaching methods. Three hours lecture and applied.
- PHED 227 Adventure Program Methods** (Activity Lab) (1, OD)
Skills and methods of teaching initiatives, ropes course, and adventure activities in physical education and outdoor education programs in school systems. Two hours applied.
- PHED 228 Lifeguarding** (Activity Lab) (1, S)
Preventive lifeguarding, basic skills, emergency plans, search and recovery techniques, legal responsibilities, pool operations, and record keeping. Prerequisites: 15 years of age or older, 500 yds continuous swim, strong swimming skills.
- PHED 237 Holistic Health** (3, F)
Lifetime health and well-being, interpersonal relationships, and current issues. Topics include stress, human sexuality, mental health, substance use and abuse, death and dying, personal safety, and fitness and nutrition. (May be used to meet PHED 101.)
- PHED 239 Principles and Practices of Coaching** (2, S)
Principles and techniques of coaching, systems used in coaching, and the development of a coaching system. An in-depth study of the athlete, the coach, and the team as a group.
- PHED 242 Techniques of Taping and Bracing** (1, F)
Practical learning of techniques and philosophies of taping, wrapping, padding and bracing for prevention, management, and treatment of athletic injuries of the extremities and trunk.
- PHED 244 Instructor's Course in Red Cross Water Safety** (2, S)
Review and refinement of swimming strokes, diving form, and water safety skills to a level adequate to obtain swimming instruction certification. Exploration of methods of instruction for swimmers of all ages and abilities. Prepare lesson plans and teach community swim lessons. Prerequisite: lifeguarding certification or swimming level strong enough to pass lifeguarding (lifeguarding certification may be obtained during the semester if necessary). (Meets PHED 102)
- PHED 246 Care, Prevention, and Management of Athletic Injuries** (3, F)
Orientation to the sports medicine team, the NATA, and Houghton Athletic Training Program. Professional roles, responsibilities, and code of ethics, documentation, legal issues and concerns. Prevention, treatment, and management of common injuries, illnesses and disorders of the head, trunk and extremities. Basic anatomy, taping and wrapping techniques. American Red Cross CPR and first aid course included.
- PHED 247 Recognition and Evaluation of Athletic Injuries** (3, S)
Pathology and evaluation of most common injuries/conditions found in the lower and upper extremities (i.e., ankle, knee, shoulder). History; observation; palpation; active and passive range of motion; muscle, neurological, and functional testing; and postural assessment.
- PHED 248 Adaptive PE and Fitness** (Activity Lab) (2, S05)
Physical and psychological aspects of illness and disabilities within context of physical activity. Evaluation of the individual and prescription of appropriate activity. Survey of legal aspects. Ten hours of field experience required. Prerequisites: BIOL 103 and 218; PHED 212
- PHED 251 Teaching Lifetime Sports I** (Activity Lab) (1, F04)
Basic understanding of skills and teaching methods for selected lifetime sports including golf, racquetball and tennis. Students will examine preparatory activities, drills, mechanical analysis of skills, and unit and lesson planning; principles of aerobic conditioning; developing training programs.

- PHED 252 Teaching Lifetime Sports II** (Activity Lab) (1, S05)
Basic understanding of skills and teaching methods for selected lifetime sports including downhill and cross-country skiing, canoeing. Students will examine preparatory activities, drills, mechanical analysis of skills, and unit and lesson planning; principles of aerobic conditioning; developing training programs.
- PHED 261 Teaching Team Sports I** (Activity Lab) (1, F05)
Basic understanding of skills and teaching methods for selected team sports including soccer, volleyball and flag football. Students will examine preparatory activities, drills, mechanical analysis of skills, and unit and lesson planning. Two hours of field experience required.
- PHED 262 Teaching Team Sports II** (Activity Lab) (1, S06)
Understanding of skills and teaching methods for selected team sports including basketball, softball and team handball. Students will examine preparatory activities, drills, mechanical analysis of skills, and unit and lesson planning. Two hours of field experience required.
- PHED 265 Lifeguard Instructor** (Activity Lab) (1, S)
American Red Cross lifeguarding course taught by ARC certified instructor. Successful completion certifies individual to teach ARC lifeguarding classes. Two hours applied. Must be 17 years old with current lifeguard training and CPR certification. Prereq: PHED 228 or equivalent
- PHED 276 Motor Development and Learning** (3, F)
Introductory study of nature, scope, process of human movement. Emphases: motor development, motor patterns, movement exploration; relationships of genetics and the environment to the learning process and overall well being.
- PHED 281 Pre-Physical Therapy Field Experience I** (2, F)
Mastery of competencies in injury prevention, recognition, and assessment; taping, and bracing techniques; understanding of the lower extremity; and medical documentation. *Requires 25 hours of observation in each of three settings: orthopedics, pediatrics, and geriatrics, with an additional 25 hours assisting with rehabilitation in the Houghton College training room. (Hours logged prior to taking this class may count with instructor's pre-approval.) Pre-PT majors only. Pre-/Co-Req: PHED 247.*
- PHED 290 Contemporary Issues in Sport** (3, OD)
Sport as a social institution and microcosm of society. Topics: socialization into and via sport; social stratifications; sport and gender, race, economics, politics, religion, social change, education.
- PHED 302 Teaching Secondary Physical Education** (3, F)
Student development and learning styles, teaching methods, analysis of one's own teaching, classroom management, evaluation of students' performance, and preparation of curriculum, unit and lesson plans for the secondary level. Fifteen hours of field experience required.
- PHED 315 Psychosocial Aspects of Physical Education and Sport** (2, S06)
Behavioral and cognitive development, learning theories, and the effects of motivation and cultural/societal factors on performance in physical education and athletics.
- PHED 320 Measurement and Evaluation in Physical Education** (3, F05)
Modern theories and practices in evaluation of knowledge, attitudes, and skills. Construction of both written and practical tests to measure the various aspects included in physical education. Use of descriptive and inferential statistics.
- PHED 330 Physiology of Exercise** (3, S)
The analysis of the physiological changes that occur in the body: during exercise, after exercise, and during a training period. Prerequisites: BIOL 103 and BIOL 217, 218.
- PHED 341 Kinesiology** (3, F)
The analysis of the musculoskeletal system and its interrelationship with human movement. Prerequisites: BIOL 103 and BIOL 217, 218.
- PHED 348 Therapeutic Exercise Management of Injuries** (3, S05)
Mechanisms, signs, symptoms, immediate and long-term rehabilitation procedures for injuries affecting extremities and axial skeleton. Rehabilitation procedures focus on range of motion activities, joint mobilization, open vs. closed kinetic chain activities, therapeutic exercises and equipment.
- PHED 350 Health and Physical Fitness for Senior Adults** (2, S06)
Holistic health and wellness of adults 55 years and older. Emphases: physical fitness, program planning, development, evaluation; principles and practices of leadership.
- PHED 381 Pre-Physical Therapy Field Experience II** (2, S)
Mastery of competencies in injury prevention, recognition, and assessment; taping, and bracing techniques; understanding of the back, and upper extremity; and developing rehabilitation programs. *Requires 25 hours of observation in each of three settings: orthopedics, cardiac, and neural rehabilitation with an*

additional 25 hours assisting with rehabilitation in the Houghton College training room. (Hours logged prior to taking this class may count with instructor's pre-approval.) Pre-PT majors only. Pre-/Co-Requisite: PHED 348.

PHED 401 Org. & Mgmt. of Physical Education and Athletics (3, S)
Theories, philosophy, and systems of management; program development, finance, purchasing and care of equipment, public relations, facility and personnel management, and legal liability.

PHED 405 Student Teaching in Physical Education K-6 (6, F&S)

PHED 407 Student Teaching in Physical Education 7-12 (6, F&S)
Observation and teaching in elementary and secondary programs. Off-campus assignment under the direction of skilled teachers. Senior year. Student must register for PHED 411 concurrently. **Note: see Educ. Dept. policy on "Employment and Activities While Student Teaching." Student must have overall GPA of 2.5.**

SENIOR CAPSTONE for TEACHING OPTION

PHED 411 Issues Seminar in Physical Education (2 F&S)
Critical analysis and synthesis of student teaching experience and of crucial issues in education.

SENIOR CAPSTONE for PHYSICAL FITNESS OPTION

Either four hours of PHED 420 **or** four hours of PHED 423 and 424 and 426.

PHED 420 Internship: Physical Fitness (4-12, F&S)
Observation and practical experience in a public or private agency. Off-campus assignment under the direction of skilled professionals. NOTE: Students choosing this option must complete a total of four hours in PHED 420, or a total of four hours from PHED 423, 424, and 426. The four hours in PHED 420 includes one hour of topics in current issues. Overall GPA of 2.5 required.

PHED 423 Physical Fitness Practicum I (1, F&S)
Directed observation in off-campus fitness center programs with hands-on practical experience. Requires at least 50 observation hours from two or more agencies; sites to be negotiated. Overall GPA of 2.5 required.

PHED 424 Physical Fitness Practicum II (1, F&S)
Directed observation in off-campus rehabilitation programs with hands-on practical experience. Requires at least 50 observation hours from two or more agencies; sites to be negotiated. Overall GPA of 2.5 required.

PHED 426 Issues Seminar/Fitness Testing and Prescription (2, F&S)
Critical analysis and synthesis of critical issues in the area of health and physical fitness. On-campus fitness testing; prescriptions and follow-ups will be conducted by the student. Prerequisites: PHED 423 and 424.

PHED 191, -2; 291, -2; 391, -2; 491, -2 Independent Study (1, 2, or 3)

PHED 295, 395, 495 Special Topics (1,2, or 3)
Depending on interest, demand and faculty availability and expertise courses will be offered to allow students to consider issues and aspects of physical education not covered in other courses.

PHED 496 Honors in Physical Education (3, OD)

PHYSICS BA, BS (majors and minor)

Department of Physics and Earth Science: Mark E. Yuly, chair

Faculty: Ronald Rohe, Mark Yuly

Physics Major (BS): (31 hours in major; 16 in prerequisites; 10 in co-requisites)

General Information

The BS physics major provides a broad variety of experiences with the theoretical basis of physics, its applications, experimental and mathematical techniques, and its study using computer programming and simulations. It serves as an excellent preparation for graduate work in physics or related fields, such as engineering, astrophysics, biophysics, physical oceanography, geophysics, and meteorology. Students may also use the physics major as preparation for attending professional school in fields such as medicine, dentistry, and law.

The requirements for the BS in physics are as follows:

Prerequisites (16):

PHYS 151, 152	General Physics I, II	8
MATH 181, 182	Calculus I, II	8
Required (31) which must include:		
PHYS 275, 276	Experimental Physics Lab	2
PHYS 251	Mechanics I	3
PHYS 352	Mechanics II	3
PHYS 212	Modern Physics	3
PHYS 353	Electricity and Magnetism I	3
PHYS 354	Electricity and Magnetism II	3
PHYS 355	Thermal Physics	3
PHYS 356	Quantum Mechanics	3
PHYS 471,472	Physics Project Lab	2
PHYS 482	Senior Capstone: Physics Seminar	1
An additional 5 hours in PHYS courses above 200 level		
Co-requisites (10):		
MATH 241	Differential Equations	3
MATH 321	Multivariate Calculus	3
CHEM 151	General Chemistry I +Lab	4
Additional recommended supporting courses include:		
MATH 261	Linear Algebra	3
CHEM 152	General Chemistry II + Lab	4
CSCI 211	Programming I	3
CSCI 236	Data Structures and Algorithms	3
PHIL 360	History and Philosophy of Science	4

Computational Physics Major (BS): (30 hours in major; 16 in prerequisites; 10 in co-requisites)

General Information

Computational physics involves the use of computers in modeling and analyzing complex systems. This major is available to those students interested in studying physics with an emphasis on the use of computers. It provides students with highly sought-after computer and problem solving skills in a growing area of interdisciplinary study. (**See Computational Physics**)

Applied Physics Major - Engineering Emphasis (BS)

(31 hours in major; 17 in prerequisites, 13 in co-requisites)

General Information

This major is for students interested in the engineering applications of physics and is preparation for an engineering-related career or graduate school in engineering or physics. (**See Engineering**)

Physics Major (BA): (24 hours in major; 16 in prerequisites; 6 in co-requisites)

The BA major is particularly appropriate for students interested in a double major with another field, or for students completing a concentration in secondary education.

The requirements for the BA in physics are as follows:

Prerequisites (16):	
PHYS 151, 152	General Physics I, II
MATH 181, 182	Calculus I, II
Required (24) which must include:	
PHYS 275, 276	Experimental Physics Lab
PHYS 251	Mechanics I
PHYS 212	Modern Physics
PHYS 353	Electricity and Magnetism I
PHYS 355	Thermal Physics
PHYS 482	Senior Capstone: Physics Seminar
An additional 9 hours in PHYS courses above 200 level	
Co-requisites (6):	
MATH 241	Differential Equations
MATH 321	Multivariate Calculus
Additional recommended supporting courses include:	
CHEM 151, 152	General Chemistry
CSCI 211	Programming I
PHIL 360	History and Philosophy of Science

Course Descriptions

PHYS 140 Physics of Music

(2, May, 06)

This course will focus on the physics of various phenomena associated with music. A quantitative, mathematical approach will be used and students will apply the methods of science to gain a greater understanding of music. Topics will include harmonics, frequency and tone, overtones, spectral analysis and the physics of scales.

PHYS 151, 152 General Physics

(4/4, F/S)

An introduction to the study of physics focusing on central concepts and problem solving. Topics include mechanics, energy and waves (PHYS 151) and thermodynamics, electricity, magnetism, optics and modern physics (PHYS 152). Three lecture and three laboratory hours each week. Prerequisite: MATH 181 (or evidence of adequate math preparation) for PHYS 151, and PHYS 151 for PHYS 152

PHYS 170 Introduction to Engineering

(1, F05)

An introduction to the theory and practice of engineering. By participating in a design project, students will be introduced to topics such as technical drawing using CAD software, MATLAB, and machine shop skills. The course will also address the branches of engineering, requirements of the engineering professions, and moral and ethical dimensions of engineering as a field of study and as a profession. This course is required for dual-degree engineering students.

PHYS 212 Modern Physics

(3, F04)

An introduction to the basic ideas of relativity and quantum theory. The implications of Special Relativity will be explored using the Lorentz transformation. General Relativity will be conceptually introduced. Elementary quantum mechanics using the Schrödinger equation will be applied to atoms, molecules, solids, nuclei, and elementary particles. Prerequisite: PHYS 152

PHYS 215 Engineering Mechanics: Statics

(3, S06)

A study of basic mechanics as it relates to the static stability of structures and other objects using methods of multidimensional vector analysis and virtual work. Topics to be covered include the equilibrium of a particle and a rigid body, structural analysis, friction, center of gravity, and moment of inertia. Prerequisite: PHYS 151

PHYS 250 Engineering Mechanics: Dynamics

(3, F04)

Methods of vector calculus are applied to investigate the multidimensional kinematics and dynamics of particles and rigid bodies. Both translating and rotating systems are explored using such principles as force, torque, work, energy, impulse, and momentum (linear and angular). Prerequisites: PHYS 152 and MATH 182. Pre/corequisite: MATH 241 are recommended.

PHYS 251 Mechanics I

(3, F04)

A development of classical mechanics beyond the introductory physics level. The course will focus on the dynamics of particles and rigid bodies in one, two, and three dimensions. Topics covered will include central forces, collisions, and non-inertial frames of reference. Analytical and numerical methods of solution will be included. Prerequisites: PHYS 152 and MATH 182; pre/corequisite: MATH 241

PHYS 258 Analog Electronics

(4, S06)

A study of analog circuits comprised of resistors, capacitors, inductors, op-amps and DC and AC voltage and current sources. Methods of analyses include Kirchoff's Laws, node/mesh, network theorems, bode plots, Laplace transforms, and two-port networks. Some software tools will also be explored. Includes a three-hour weekly laboratory. Prerequisite: PHYS 152; pre/coreq: MATH 241

PHYS 259 Digital Electronics

(4, S05)

An introduction to digital circuits including Boolean algebra, logic gates, Karnaugh maps, decoders, flip-flops, registers, microcomputers, and interface devices. Characteristics and operation of digital integrated circuits will be covered. Some software tools will also be explored. Includes a three-hour weekly laboratory. Prerequisite: PHYS 152

PHYS 260 Optics

(4, OD)

An introduction to the study of light. The course includes topics from geometrical optics, such as optical system analysis and aberration theory, and topics from physical optics, including interference, diffraction, and Fourier optics. Special topics from quantum optics will also be included. Prerequisites: PHYS 152 and MATH 182. Pre/co-requisite: MATH 241. Two lecture and three laboratory hours each week.

PHYS 275, 276 Experimental Physics Laboratory

(1,1 F04&S05)

Selected experiments in mechanics, electricity and magnetism, and modern physics.

PHYS 352 Mechanics II

(3, S05)

Newton's Laws and conservation laws will be reviewed, followed by an examination of Hamilton's Principle and the Lagrangian formulation of mechanics. Using these tools, topics such as central force motion, dynamics of systems of particles and rigid bodies, and coupled oscillations and normal modes will be explored. Prerequisite: PHYS 250 or 251. MATH 261 recommended pre/co-requisite.

PHYS 353 Electricity and Magnetism I

(3, F05)

An introduction, with applications, to the classical theory of electric and magnetic fields. The course will begin with an overview of vector calculus for electromagnetic theory and will develop Maxwell's equations. Pre/corequisites: PHYS 152, MATH 321

PHYS 354 Electricity and Magnetism II (3, S06)
 An examination of the important role of special relativity in electromagnetic phenomena. Maxwell's equations are introduced in a relativistic manner, and used to investigate the properties of electromagnetic waves. Also included are mathematical techniques for solving the equations of Laplace and Poisson in electrostatics. Prerequisite: PHYS 353; pre/corequisite: MATH 261 recommended

PHYS 355 Thermal Physics (3, S06)
 Analysis of laws of thermodynamic equilibria in solid, liquid, and gaseous phases; introduction to statistical mechanics in terms of the microcanonical, canonical and grand canonical ensembles. Prerequisites: PHYS 152, MATH 241

PHYS 356 Quantum Mechanics (3, S05)
 Modern quantum mechanics with an emphasis on matrix methods. Topics to be covered include time evolution of wave functions, harmonic oscillators, angular momentum, central potentials, the hydrogen atom and perturbation theory. Prerequisites: PHYS 212, MATH 241; pre/coquisites: MATH 261 recommended

PHYS 471, 472 Physics Project Laboratory (1/1, F/S)
 Participation with a faculty member in an individual research project. May be repeated for credit.

PHYS 482 Senior Capstone: Physics Seminar (1, S)
 Written thesis and oral presentation of work completed in PHYS 471/472 (for Physics BS) or on a topic of current interest in physics journals (for Physics BA).

PHYS 295, 395, 495 Special Topics in Physics (1, 2, 3 or 4)
 Introduction to areas of physics not treated in other courses.

PHYS 391, 392, 491, 492 Independent Study (1, 2, or 3)

PHYS 480 General Science Seminar (1, S)
 Written thesis and oral presentation on a topic selected for interdisciplinary breadth describing current scientific research in the area of the student's concentration, based on a thorough review of scientific literature.

PHYS 496 Honors in Physics (3, OD)

POLITICAL SCIENCE (major and minor)

Department of History and Political Science: A. Cameron Airhart, chair

Faculty: B. David Benedict, Peter Meilaender, Ronald Oakerson

Major: (30 hours)

Minor: (12 hours of POLS courses above the 210 level)

Political Science Major: The political science discipline concentrates on government institutions and processes at the local, national, and international levels that result in legislation, policies, norms, and actions. In addition to supporting responsible citizenship, the major is important to students contemplating careers in teaching, government, law, diplomacy, international service, business, and journalism.

The major consists of 27 hours.

18 hours of core requirements above POLS 101:

POLS222 The American Political System	3
POLS230 Introduction to International Relations	3
POLS 309 Statistics	3
POLS312 Social Science Research Methods	3
POLS364 Political Thought	3
POLS480 Senior Capstone: Politics Seminar	3
Political science electives above the 210 level	12
(Majors may fulfill up to six of these 12 hours by participating in an internship in local, state, or national domestic politics or in an international intercultural setting.)	

Students will be encouraged to complete a broad liberal arts education, especially including exposure to the other social sciences (economics, sociology, psychology, and cultural anthropology) as well as history, philosophy, ethics, logic, and critical thinking.

Course Descriptions

POLS 101 Introduction to Politics (3, F)
 Considers nature, goals, and processes of politics in theory and practice; surveys major forms of

government; explores key issues of world politics. Satisfies the integrative studies level I requirement in social science.

POLS 220 World Regional Geography (3, May)
Study of location and character of major world regions and nation-states. The concept of the *region* in geography is examined, followed by detailed analysis of nine regions, focusing on political and economic issues and cultural diversity.

POLS 222 The American Political System (3, S)
The foundation course in American politics. Focus is on the basic design of the American political system, including constitutionalism, federalism, and the separation of powers. Includes discussion of political parties, elections, Congress and the President, bureaucracy, and the judiciary.

POLS 224 States, Cities, and Communities: Grassroots Politics (3, TBA)
A view of American politics from the "bottom-up," focusing on state and local governments, with special attention to New York. Considers urban, suburban, and rural patterns of governance in the framework of American federalism. Includes a focus on judicial process as practiced in state and local courts.

POLS 230 Introduction to International Relations (3, F)
Development of the international system of nation-states; effects of system structure and intrastate elements on international relations; concepts such as power, balance of power, sovereignty, interdependence, and issues such as foreign policy decision making, causes of war, and nuclear arms control.

POLS 240 Comparative Government (3, F04)
Comparative basis for understanding similarities and differences in political systems around the world, focusing on Europe and Asia. Typical issues: historical development, ideology, political parties, interest groups, government, and domestic and foreign policies.

POLS 260 Introduction to Political Thought (3, F)
Introduces students to Western political thought from the ancient to the modern world through a close reading of important thinkers. By considering problems of community, obligation, order, justice, liberty, and freedom, the course equips students for careful normative reflection on public life.

POLS 295 Special Topics (3, F)
(See course description in Off-Campus Programs - Houghton in Adirondack Park.)

POLS 309 Statistics (3, F&S)
Study of descriptive as well as inferential statistics, including analysis of variance and measures of correlation; application to political, social, and psychological data. Recommended for sophomore year. Prerequisite for POLS 312 Social Science Research Methods.

POLS 312 Social Science Research Methods (3, S)
Basic scientific method, application to social phenomena; procedures (and methodological problems in various types of social research; methods of data analysis. Recommended for junior year after completion of POLS 309.

POLS 316 American Foreign Policy (3, TBA)
Formulation and execution of US foreign policy, especially since World War II. Special attention to foreign policy strategies in light of different conceptions of vital interests, threats to these interests, and appropriate responses.

POLS 320 Community Organization and Development (3, F)
A comparative study of how local communities organize themselves to manage natural resources and provide collective goods and sources. Considers issues related to decentralization and sustainable development. Emphasis on analytic approaches to problem-solving.

POLS 321 Public Organization (3, OD)
Focuses on public administration and delivery of public goods and services at all levels of government. Discussion includes bureaucracy, management, intergovernmental relations, citizen participation, and service delivery. Explores issues of responsiveness, accountability, effectiveness, efficiency, and equity.

POLS 323 Public Policy Analysis (3, TBA)
Examines specific policy problems and the methods used to analyze such problems. Focus is on American domestic policies. Specific issues vary, ranging from national to local and from urban to rural.

POLS 326 American Democracy I: Representation (3, F04)
Explores patterns and issues of representation in American democracy. Examines voting, elections, political parties, interest groups, and reform movements. Prerequisite: POLS 222

- POLS 327 American Democracy II: Governance** (3, S05)
Explores institutions and processes of governance, focusing on Congress and the President, in the context of a federal system. Considers perennial issues, such as the separation of powers, budgetary process, and the rule of law. Prerequisite: POLS 222
- POLS 336 Governance and Politics in Developing Countries** (3, TBA)
A study of patterns of governance and politics typical of developing countries with an emphasis in relationships between governance and development.
- POLS 355 East Asia: History and Politics** (3, TBA)
Introduction to history and politics of East Asia from ancient time to the present, with focus on China and Japan. Emphasis on historical and political developments in 19th and 20th centuries leading to founding of Communist China and the new Japan.
- POLS 357 Russia and the USSR: History and Politics** (3, TBA)
Introduction to Russian and Soviet history and politics from first records to present, with focus on government, institutions, culture, and society of Imperial and Soviet periods.
- POLS 393 Field Experience (Internship)** (1-3, OD)
Supervised participation in executive, legislative, judicial, or legal offices in local, state, or federal government when deemed suitable for academic credit and approved by the political science advisor and the chair of the Department of History and Political Science. Usually three hours of credit may be counted toward the major or minor. May be combined with an additional three hours of credit for POLS 391 Independent Study.
- POLS 295, 395, 495 Special Topics in Political Science** (3, OD)
According to demand and interest, courses will be offered on the Middle East, International Law and Organization, International Relations Theory, Political Economy, and Issues of War and Peace.
- POLS 427 American Constitutional Law** (3, S04)
Development of the Constitution through practice and leading court decisions from 1787 to the present. Emphasis on case studies.
- POLS 480 Senior Capstone: Politics Seminar** (3, F)
Capstone course of the major in which students integrate concepts, knowledge, skills, methods, approaches, and practical experience in politics and government. Will improve research, writing, analytical, and communications skills by researching, writing, and defending a first-year-graduate-school-quality paper based on original research in both primary and secondary sources.
- POLS 191, -2; 292, -2; 391, -2; 491, -2 Independent Study** (1, 2, or 3, OD)
- POLS 496 Honors in Political Science** (3, S)

PRE-HEALTH PROFESSIONS

Faculty Advisors: Jacqueline Crisman, Aaron Sullivan

Dental, medical, optometry, osteopathy, physician's assistant, and podiatry: Students who desire to attend one of these schools after graduation from Houghton usually major in biology or chemistry, although schools do admit students with majors other than these. Regardless, a balanced selection of courses in several disciplines is strongly encouraged as well as those required by the professional school and by the choice of major and minor.

While at Houghton the student has a curriculum advisor from the major area. Dr. Jacqueline Crisman, chair of the Health Professions Advisory Committee, can supply more information about any of these programs. Biennially, a practicum is offered during Mayterm for further experience in these areas to help provide guidance and confirmation of career.

Most of these schools receive far more applications than the limited number of openings so that strong natural ability and outstanding scholastic achievement on the undergraduate level are vital if an applicant is to receive serious consideration. Each area publishes an annual book that gives details on requirements of specific schools.

Pre-veterinary medicine: Houghton provides a broad, pre-professional education, while offering those courses specified by veterinary medical colleges for admission. Veterinary colleges stress the desirability of a well-rounded post-secondary education. They accept students without regard to their pre-professional major and sometimes after three years or 90 hours of credit. However, most applicants major in biology or chemistry and, on the average, have more than 100 hours of pre-professional training.

Because there are relatively few veterinary colleges, the number of students accepted each year into veterinary curricula is small. Therefore, excellence of academic achievement and personal character, as well as familiarity with the profession, are necessary for admission. Contact Professor Aaron Sullivan, pre-veterinary advisor, for further information.

PRE-LAW

Faculty Advisors: Christopher Stewart, Stephen Alderman, Peter Meilaender

Students who plan to attend law school after graduation from Houghton may choose majors and minors from a wide selection of academic offerings. No particular majors or minors are required. The program for pre-law students is flexible and emphasizes the development of critical analytical thinking, habits of thoroughness, intellectual curiosity, and scholarship, and the ability to organize data and communicate the results. Therefore, a balanced selection of courses in several disciplines is advised, including: critical thinking, logic and ethics; communication, public speaking, and argumentation and debate; algebra, topology, and accounting; research and writing; as well as philosophy, history, politics, and other social sciences. While some law courses are offered (constitutional, business, and international law), they do not constitute the program's core. In all of these areas, Houghton's pre-law program directly reflects law school admissions expectations and requirements.

While at Houghton, each student has a curriculum advisor from the major area. In addition, each student works with one of the pre-law advisors to develop an individualized program. Internships for juniors and seniors in local law offices are available and encouraged. Moreover, students also should consider the senior-in-absentia program described elsewhere in this catalog. (See Index for page.)

Most law schools receive far more applications than they have openings. Strong natural ability combined with outstanding academic achievement and high scoring on the Law School Aptitude Test (LSAT) is imperative if an application is to receive serious consideration.

PRE-PHYSICAL THERAPY (biology BA major)

Department of Biology: James M. Wolfe, chair

Faculty: Sandra Johnson, Aaron Sullivan

A pre-physical therapy track is available for students who are interested in pursuing graduate studies in physical therapy. A number of courses in Physical Education/ Athletic Training are required for this track.

Pre-Physical Therapy Emphasis (Biology BA) (26 hours in major, 8 in prerequisites, 20 in co-requisites)

Following eight hours of General Biology (prerequisite), the Pre-Physical Therapy program consists of 26 hours in biology and physical education that must include the following:

BIOL 217,218	Human Anatomy and Physiology	8
BIOL 251	Genetics	4
BIOL 281	Introduction to Research	1
BIOL 482	Senior Capstone: Seminar	1
PHED 330	Physiology of Exercise	3
PHED 341	Kinesiology	3
BIOL XXX	Electives	6

Plus an additional 20 hours of co-requisites:

CHEM 141, 152	General Chemistry	8
PHYS 151, 152	General Physics	8
MATH 181	Calculus I	4

Minor: (13 hours) This Pre-Physical Therapy/ Athletic Training minor must be taken with the Pre-Physical Therapy program.

Required classes

PHED 346	Care, Prevention & Management of Athletic Injuries ...	3
PHED 247	Recognition and Evaluation of Athletic Injuries	3
PHED 348	Therapeutic Exercise Mgmt. of Injuries	3
PHED 281	Pre-PT Field Experience I	2
PHED 381	Pre-PT Field Experience II	2
Total:		13

Course Descriptions

PHED 281 Pre-Physical Therapy Field Experience I (2, F)

Mastery of competencies in injury prevention, recognition, and assessment, and taping and bracing techniques, understanding of the lower extremity and medical documentation. Requires 20 hours in orthopedic rehabilitation and 10 hours with geriatric and pediatric rehabilitation. An additional 40 hours is required in assisting with rehabilitation in the Houghton College athletic training room. (Hours logged prior to taking this class may count with instructor's pre-approval.) Pre-PT majors only. Pre-/Co-Req: PHED 247.

PHED 381 **Pre-Physical Therapy Field Experience II**

(2, S)

Mastery of competencies in injury prevention, recognition, and assessment, and taping and bracing techniques, understanding of the back, upper extremity and developing rehabilitation programs. Requires 20 hours of observation in each of three settings: orthopedics, cardiac, and neural rehabilitation with an additional 20 hours assisting with rehabilitation in the Houghton College training room. Pre-PT majors only. (Hours logged prior to taking this class may count with instructor's pre-approval.) Pre-PT majors only. Pre/corequisites: PHED 347 or 348

(For

other descriptions, see the appropriate section (Biology, Physical Education, etc.)

PRE-SEMINARY

(Consult the chair of the Department of Religion and Philosophy, Dr. J. Michael Walters)

For those who expect to attend seminary after college, The Association of Theological Schools offers the following guidelines:

- Students should develop to a satisfactory degree their ability to think independently, to communicate effectively, and to do research.
 - Students should possess a general knowledge of past and present culture through study in the humanities and the natural and social sciences.
 - The biblical languages are useful tools to acquire in the pre-seminary period. Latin may be helpful, especially in some traditions. Modern languages such as German, French, and Spanish are also valuable.
 - The study of religion is appropriate within a liberal arts education. Students should not, however, anticipate to any considerable extent at the undergraduate level, work that will form part of their seminary program. Such anticipation may narrow the base on which later theological reflection will rest and may also create problems in planning an integrated program in the theological school.
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PSYCHOLOGY (major and minor)

Department of Psychology and Sociology: Daryl H. Stevenson, chair

Faculty: Richard Stegen, Daryl Stevenson, Cynthia Symons, John Van Wicklin, Paul Young

Major: (31 hours in the major; 4 in pre/co-requisites)

General Information:

The psychology faculty conducts a systematic inquiry into the nature of animal and human behavior, including cognitive and emotional processes. Our commitment is to prepare students to understand events from a psychological perspective and the belief that truth is unified. Our task is to appreciate the contributions of modern psychological theory and practice, and at the same time to view these critically in light of Christian faith and the inspired Biblical record. We address fundamental issues confronting psychology and faith to help students develop a holistic Christian view of the nature of persons, recognizing that legitimate differences exist within Christian evangelical theology.

Graduates often take further training to pursue such professional careers as clinical and counseling psychology, student and personnel development, school psychology, social work, and human services in general. Others have taken appointments in academic departments. Even without further training, knowledge of psychological functioning within individuals and in group settings is a valuable asset in professions such as law, business, education, therapeutic recreation, and ministry.

Major Information:

Introduction to Psychology (PSY 111) is prerequisite to all additional coursework in the discipline. The major requires 31 hours (of which at least three must be 400 level PSY) beyond that course. Psychology majors complete seven hours of core requirements and then at least one course from each of the five secondary core areas listed below. Finally, at least three other elective courses are selected from the department's offerings. If a student takes more than one course from a Secondary Core area it may be used as elective credit.

Statistics (PSY 309) and Experimental Methods (PSY 310) should be taken in fairly close sequence during the sophomore and junior years. Students desiring to participate in the optional Senior Fall Semester Internship in Buffalo should plan to work closely with their advisor to complete the appropriate series of courses prior to placement: Experimental Methods, Abnormal Psychology, Psychological Assessment, and Counseling and Psychotherapy. Three of the six internship hours may count toward the minimum 31 hours for the major.

Co-requisite with the major is four hours of laboratory biology.

Students with a double major may take a minimum of 25 hours of psychology coursework, meeting all the major's regular requirements and reducing electives to three hours.

Primary Core Requirements

PSY 309 Statistics	3
PSY 310 Experimental Methods	3
PSY 482 Senior Capstone: Seminar	1

Secondary Core Areas (minimum of one course from each area)

I. Developmental

PSY 214 Child Psychology, or	
PSY 215 Adolescent Psychology, or	
PSY 230 Lifespan Development of the Family	3

II. Social/Personality

PSY 218 Social Psychology or	
PSY 301 Psychology of Personality	3

III. Learning/Physiological

PSY 335 Drugs and Behavior, or	
PSY 336 Cognitive Psychology, or	
PSY 403 Physiological Psychology, or	
PSY 451 Learning and Memory	3 or 4

IV. Clinical

PSY 305 Abnormal Psychology, or	
PSY 315 Psychological Assessment, or	
PSY 402 Counseling and Psychotherapy	3

V. Integrative Issues

PSY 302 Psychology and Christianity, or	
PSY 306 Psychology of Religion, or	
PSY 401 History and Systems of Psychology	3
PSY xxx Psychology electives	9

Total: 31

Minor: A minor in psychology consists of any 12 semester hours above PSY 111, excluding Statistics (PSY 309), but may not include more than six hours of field experience credit.

Course Descriptions

PSY 111 Introduction to Psychology

(3, F&S)

Scientific study of human behavior. Fundamental facts, theories, issues, concepts, and principles of psychology. **Note: PSY 111 is prerequisite to all other psychology courses.** May include research participation requirements.

PSY 214 Child Psychology

(3, F&S)

Concepts, principles, theories, and research concerning the biological and environmental influences on the behavioral and psychological development of the child from conception to puberty.

PSY 215 Adolescent Psychology

(3, F04)

Examines physical, cognitive, social, moral, and religious development from pubescence to early adulthood with attention to various forms of disturbance and self-destructive behavior.

PSY 218 Social Psychology

(3, F)

Introduction to social behavior from a psychological perspective. Individual behavior as it affects/is affected by the behavior of others. Topics: prejudice, group processes, leadership, conformity, attitudes, change.

PSY 230 Lifespan Development of the Family

(3, S)

A consideration of developmental theory and research related to family composition throughout the lifespan. Attention will be given to nontraditional families as well as to events that affect family development including divorce, abuse, alcoholism, mobility, poverty, and death.

PSY 252 Exceptional Child

(3, F&S)

Introduction to special education; special needs of gifted, learning and emotionally disabled, and culturally disadvantaged children.

PSY 301 Psychology of Personality

(3, F&S)

Description, development, dynamics, and determinants of the normal personality. Emphasis on contemporary theories. Prerequisite: six hours in psychology

PSY 302 Psychology and Christianity

(3, S)

Evaluation of works attempting to integrate psychology and biblical/theological understanding. Discussion of integration models and a conceptual framework for integration. Prerequisite: six hours in psychology

- PSY 305 Abnormal Psychology** (3, F&S)
 Etiology, dynamics, and treatment of abnormal behavior. Prerequisites: six hours in psychology
- PSY 306 Psychology of Religion** (3, F)
 Study of religious and spiritual experience and behavior from a psychological perspective. Covers such topics as conversion, faith, mysticism, spiritual development, etc. and examines the origin and nature of religion according to great psychological and theological thinkers such as Kierkegaard, Freud, Jung, Maslow, Tillich, and Frankl.
- PSY 309 Statistics** (3, F&S)
 Study of descriptive and inferential statistics, including analysis of variance and measures of correlation. Focus on applications to social and psychological data. (Also listed in BADM, SOC, POLS)
- PSY 310 Experimental Methods** (3, F&S)
 Experimental and other quantitative methods used in the study of behavior. Applied statistical analysis, laboratory experiences, and research writing. Prerequisite: PSY 309
- PSY 315 Psychological Assessment** (3, S)
 Principles of construction, validation, and use applied to a variety of ability and personality tests. Selected tests administered with guided interpretation. Prerequisite: PSY 309
- PSY 324 Life in the City** (3, F)
 (See Off-Campus Programs -- Houghton in Australia for description.)
- PSY 325 Human Sexuality** (3, S)
 Examines sexuality as a component of our personalities, an aspect of our behavior, and an element in our environment. Considers how elements of sexuality interact with other aspects of our thought and behavior, and the role of sexuality in normal and abnormal development across the lifespan.
- PSY 326 Introduction to Family Systems** (3, F)
 An introduction to the family systems perspective through an overview of various schools of family systems theory. This course is intended to introduce students to the epistemological underpinnings of the family therapy field, but not to teach clinical skills.
- PSY 330 Conflict Management** (3, F)
 An introduction to conflict management that balances coverage of major theories with practice in communication skills and conflict intervention techniques (e.g. assertiveness training, mediation, negotiation). Focus on experiential learning, with heavy emphasis on written analysis that includes analytical journaling and analysis of scientific journal articles.
- PSY 335 Drugs and Behavior** (3, F)
 Principles of action and categorical analysis of psychoactive drugs; their physiological, psychological, and societal effects; patterns and causes of their use and abuse in individuals and societies; and systems of drug education.
- PSY 336 Cognitive Psychology** (3, OD)
 Covers the historical development of cognitive psychology and its emergence as a paradigm; current and traditional theories of memory; judgment and decision making; and problem solving. Analysis of new and classic psychological studies. Focus on understanding how experimental methods are used to answer questions, and on understanding the logic of studies.
- PSY 401 History and Systems of Psychology** (3, S06)
 Antecedents and evolution of psychological systems and concepts, including the life and works of historically eminent psychologists. Prerequisite: 15 hours in psychology
- PSY 402 Counseling and Psychotherapy** (3, S)
 An introduction to major systems of psychological intervention and their rationale. Emphasis on theory rather than practice. Prerequisite: PSY 305
- PSY 403 Physiological Psychology** (4, F05)
 Physiology of nervous and glandular systems as they relate to behavior, including sensation, emotion, aggression, learning, and mental disorders. Prerequisite: four hours of biology, WRIT 306
- PSY 410 Practicum in Psychology** (1, 2, 3, F&S)
 Introduction to professional work in psychology through field experiences near the main campus in such settings as school psychology, personnel, continuing treatment programs, alcohol and drug abuse treatment centers, and developmental disability centers. Prerequisite: senior status and permission of the department. Contact: Dr. Stevenson
- PSY 413 Professional Issues and Techniques in Psychology** (3, F)
 Taken in conjunction with the Internship; emphases is on professional and ethical issues, interviewing skills, and developing various research and practice skills. (West Seneca Campus only)

PSY 415 **Internship in Psychology** (West Seneca Campus only) (6, F)
An optional supervised experience in a psychological setting integrating theory with professional practice. By application only through the department. Contact: Dr. Stevenson

PSY 451 **Learning and Memory** (3, S)
Critical examination of the main psychological theories of learning, memory and information processing, with applications in teaching, research, and therapy. Prerequisite: six hours in psychology.

PSY 482 **Senior Capstone: Seminar** (1, F&S)
Informed discussion of significant and contemporary concepts and issues. Includes development of an individual research or group project on some aspect of the discipline. Required of all senior majors. Prerequisites: PSY 309, PSY 310, and 21 hours of psychology. (PSY 413 may be substituted by instructor's permission.)

PSY 211, 311, 411 **Special Topics in Psychology** (1, 2, 3, or 4, OD)
According to interest and demand, courses will be offered in Adult Development and Aging, Israel Seminar, Cross-cultural Psychology, and other topics. Prerequisites vary with the course.

PSY 191, -2; 291, -2; 391, -2; 491, -2 **Independent Study** (1, 2 or 3)

PSY 496 **Honors in Psychology** (3, S)

RECREATION & LEISURE STUDIES (major and minor)

Department of Physical Education/Exercise Studies & Recreation/Leisure:

William R. Swanson, chair

Faculty: Thomas R. Kettelkamp, Beth Markell, Robert Smalley

Major: This major in recreation and leisure studies provides two option areas: Therapeutic and Outdoor Education/Camp Administration. All students will take the core requirements listed below.

Core Requirements

REC 220 Recreation, Leisure and Society	3
REC 221 Intro of Leisure Service Delivery Systems	3
REC 300 Program Planning and Evaluation	3
REC 406 Recreation Internship	3
REC xxx (elective)	3
Total:	15

Recreation/Leisure (Therapeutic Option - 31 hours; 11 hours in pre/co-requisites)

All students will take the above core. The practicum provides opportunity for applying theory and practicing professionally related activities.

(Students wishing to be certified with the National Council of Therapeutic Recreation Certification should design their coursework directly with the department chair.)

Co-requisites

PSY 111 Introduction of Psychology	3
BIOL 103 Introduction to Biology	4
BIOL 217 Anatomy and Physiology	4
Total:	11

Theory Requirements

REC 248 Foundations of Therapeutic Recreation	3
REC 303 Methods and Materials of Therapeutic Rec	3
REC 409 Senior Capstone: Issues in Therapeutic Recreation	3
REC or PHED Applied labs (as approved by dept. chair)	7
Core requirements	15
Total:	31

Recreation/Leisure (Outdoor Education/Camp Administration Option - 31 hours; 8 hours in pre/co-requisites)

Co-requisites

BIOL 215 Local Flora and Vegetation	3
REC 102B Backpacking	1
XXX xxx (4-hr. science course with environmental emphasis)	4
Total:	8

Theory Requirements

REC 301 Methods & Mat'ls for Camps & Outdoor Educ.	3
REC 240 Administration of Organized Camps	3
REC 227 Outdoor Leadership Training	3

REC 266 Outdoor Living Skills	2
REC 401 Natural Resources Management	3
REC 411 Senior Capstone: Seminar in Recreation and Leisure	2
Core requirements	15
Total:	31

Minor (14 hours)

Courses numbered 200 or above, including REC 220 and REC 221. The remaining eight hours may be selected from any REC courses, with at least two hours but not more than five in activity labs.

Course Descriptions

- REC 103 Initiatives** (Activity Lab) (1, F&S)
Problem-solving activities in which group dynamics and team building will be emphasized through group discussions and participation in facilitated ropes course, initiative, values clarification and "new games" activities (also meets PHED 102 requirement).
- REC 104 Backpacking** (Activity Lab) (1, F&S)
Develop skills and knowledge in backpacking and provide the opportunity for students to enjoy the outdoors. Two weekend, overnight backpacking trips will take place throughout the semester (also meets PHED 102 requirement.)
- REC 105 Outdoor Pursuits: Canoeing and Backpacking** (1, F)
(See course description in Off-Campus Programs-Adirondack section.)
- REC 109 Highlander Adventure Program** (Activity Lab) (IS alternative) (2, Special)
Two to three days on the initiatives course and a seven-day trip into the wilderness. Develop skills in canoeing, rock climbing, rappelling, backpacking. Open only to incoming first-year and transfer students. Offered 10 days before fall semester validation (may be used to meet PHED102 requirement).
- REC 211 Eco-tour in Honduras** (3, M)
Students will have a third-world experience including a service project with Christian Camping International. Visits are made to national parks and Mayan Indian ruins. Activities include hiking, snorkeling, and attending cross-cultural classes. (Meets PHED 102 requirement.)
- REC 212 Eco-tourism in Africa** (3,S)
Students will learn to be stewards of the environment in the African context. Hikes, camping, visits to game parks and preserves, and service projects will be combined with lectures on the interaction with the environment, management of resources, economic impacts of tourism on the local community infrastructure and other issues related to God and His creation. (Meets PHED 102 requirement.)
- REC 218 Winter Ski Outing** (Activity Lab) (1, Special)
Downhill and recreational skiing skills developed at a major resort area. Techniques equal to one's ability will be taught. Offered during break, before spring semester.
- REC 220 Recreation, Leisure, and Society** (3, F)
History, philosophy, and practice of leisure in contemporary society. Theories of leisure, recreation, and play. Students will develop a personal philosophy of leisure.
- REC 221 Introduction of Leisure Service Delivery Systems** (3, S)
History of parks and recreation movement in the U.S.; agencies which provide recreation opportunities, and their roles in recreation and leisure in society; planning and managing programs and resources from a client-oriented perspective.
- REC 227 Outdoor Leadership Training** (Activity Lab) (3, F&S)
Outdoor leadership, in activities such as initiatives, ropes course, rock climbing, and environmental awareness, using skills in judgment, decision-making, problem solving, and basic rescue techniques.
- REC 228 Trip Experience** (1 to 3, M)
As arranged. (May be used to meet PHED 102 requirement.)
- REC 240 Administration of Organized Camps** (3, F04)
Principles and techniques used in organized camp administration; the role of camping in the development of personality. Staff and program development.
- REC 248 Foundations of Therapeutic Recreation** (3, F04)
Conditions which characterize and produce atypical individuals; diagnosis of strengths and weaknesses of the individual; prescription of procedures for appropriate activities. Prerequisite: BIOL 103, 217.
- REC 252 Teaching Lifetime Sports** (Activity Lab) (1, S05)
Skills and methods of teaching. Student notebooks including methods, mechanical analysis of skill for each sport: skiing, canoeing, archery.

- REC 266 Outdoor Living Skills** (Activity Lab) (2, S)
Skills in using the environment for outdoor living; ropecraft, firecraft, cooking; using gear, shelters, maps, compass, campsite; selecting foods; health and safety practices (one lecture; one two-hour lab).
- REC 300 Program Planning and Evaluation** (3, F)
Preparation for leadership in recreation programming: leadership styles and theory; principles and methods of program development; using fundamental leisure philosophy and theory to assess needs, plan, develop, implement, and evaluate recreational programs.
- REC 301 Methods & Materials for Camps & Outdoor Education** (Activity Lab) (3, F04)
Outdoor education. Field experience in lesson planning; development of organized camp programs, activities, structured programs (cabin, campfire, work, etc.).
- REC 302 Principles of Church Recreation** (3, S)
Overview of all aspects of church recreation. Bases for recreation in local church; methods, philosophies, populations served, rationale and designs for implementation of comprehensive church recreation programs.
- REC 303 Methods & Materials in Therapeutic Recreation** (3, S05)
Pre-practicum experience. Participation in observation, needs assessment, program planning, and leadership of special population groups in appropriate therapeutic recreation settings.
- REC 311 Special Topics** (OD)
According to interest and demand, courses will be taught relative to various therapeutic approaches to special populations: substance abuse, deviant and antisocial behavior disorders, youth at risk, etc. Prerequisites: REC 220.
- REC 401 Natural Resource Management** (3, S)
Investigating Christian environmental ethics; identifying and protecting biologically sensitive areas; rehabilitating damaged areas and resources; sound ecological practices; controlling user behavior; site problems; resource management plans.
- REC 406 Recreation Internship** (3 to 6, OD)
Professional field experience in the area of emphasis; the student will relate theory to practice in a cooperative effort between agency, student, and advisor. Permission of instructor required.
- REC 409 Senior Capstone: Issues in Therapeutic Recreation** (3, F05)
Leisure behavior as it affects therapeutic recreation services. Issues: T.R. certification, accessibility, therapeutic models for special populations; special attention to geriatric and psychiatric persons. Permission of instructor required.
- REC 411 Senior Capstone: Seminar in Issues in Recreation and Leisure** (2, S)
Leisure behavior as it affects the natural resources and environment. Solutions to current problems; back-country ethics; organizations working to preserve wilderness areas and open spaces; issues in outdoor recreation as they deal with special populations. Permission of instructor required.
- REC 191, -2; 292, -2; 391, -2; 491, -2 Independent Study** (1, 2 or 3)
- REC 496 Honors in Recreation and Leisure Studies** (1, 2, or 3, OD)

RELIGION (major; major with ministerial concentration; minor)

Department of Religion and Philosophy: J. Michael Walters, chair

Faculty: Bradley Beach, John Brittain, Richard Eckley, Carlton Fisher, Harold Kingdon, Kristina LaCelle-Peterson, Benjamin Lipscomb, Terence Paige, Carl Schultz, Paul Shea, W. Christopher Stewart, John Tyson, J. Michael Walters

Major (BA): (40 hours)

General Information

The **comprehensive major in religion** is provided for those who want a liberal arts degree with a maximum of Biblical and theological studies. This curriculum is generally accepted for entrance into seminary or other graduate institution, and is satisfactory for students going into missionary work that requires a liberal arts degree.

The **religion major with ministerial concentration** curriculum is a four-year terminal program designed to prepare students for pastoral ministry service. This curriculum is so structured that all academic requirements for ministerial ordination in The Wesleyan Church can be fulfilled. Students interested in Wesleyan ordination should consult the religion department chair, or the director of ministerial education, for particular course requirements. This program will also contribute to the

ordination requirements of other denominations. A student in this program will complete 40 hours in a specified core of religion courses and 16 hours in the ministerial concentration.

Specific requirements are: (31 hours)	
BIBL xxx Bible	12
BIBL 221 Biblical Interpretation	3
THEL 351, 352 Biblical Theology	6
THEL 453, 454 History of Christianity	6
PHIL 350 Reason and Religious Belief	2
REL 482 Senior Capstone: Seminar in Religion	2
6 hours from the following three-hour courses:	
THEL 315 Wesleyan Tradition (required for Wesleyan ordination)	
MISS 222 Modern Missions (required for Wesleyan ordination)	
MISS 321 World Religions	
THEL 214 The Cults and New Age	
URMN 212 Urban Ministry	
THEL 334 Studies in Theology	
3 hours from the following:	
SOC 338 Sociology of Religion	
PSY 306 Psychology of Religion	
PHIL xxx Philosophy course	
THEL xxx Theology course	
EDMN 231 Foundations of Educational Ministry (required for Wesleyan ordination)	

Students electing the comprehensive major in religion must satisfy all normal integrative studies requirements, except that to satisfy the language requirement the student must take either Beginning Greek and New Testament Greek, or one year of Greek plus one year of Hebrew (see Foreign Languages). A curriculum plan for this major is available through the Department of Religion and Philosophy.

Major with Ministerial Concentration (BA): This combines the above major in religion (38 hours) with a 16-hour ministerial concentration. Students who choose the ministerial curriculum must satisfy all normal integrative studies requirements, except that to satisfy the language requirement the student must take either Beginning Greek and New Testament Greek, or one year of Greek plus one year of Hebrew (see Foreign Languages). A curriculum plan for this program is available through the Department of Religion and Philosophy. The concentration curriculum is as follows:

MIN 316 Worship in the Church	3
MIN 317 Leadership in the Church	3
MIN 324 Principles of Expository Preaching	4
MIN 410 Ministerial Field Education	3
URMN 250 Evang & Social Action in the Urban Context	3

Minor: (12 hours)

Required courses:	
THEL 321 World Religions	
PHIL 350 Reason and Religious Belief	
Select additional courses from the following:	
THEL 215 Christian Apologetics	
THEL 313 Systematic Theology	
THEL 351 Biblical Theology: Old Testament	
THEL 352 Biblical Theology: New Testament	
THEL 453, 454 History of Christianity	
Other courses in Philosophy or Theology may be substituted for any of the above with the approval of the department chair.	

Course Descriptions

MIN 210 Introduction to Christian Ministries (3, F05 and alternate years)
Investigation of the Biblical, historical, and practical foundations for ministry as essential components of Christian vocation. Lay and professional aspects of ministry are explored in the context of the vocational call. A broad overview of ministry-related fields will be presented, including parish, educational, cross-cultural, and para-church ministries. This course is recommended for anyone who is interested in any form of full-time ministry.

MIN 316 Worship in the Church (3, F04 & alternate years)
An exploration of the Biblical and theological foundations of the pastoral office. Special emphasis is given to the pastoral role in the worship of the church and the challenges of leading a worshipping community. Examines ministerial duties related to the sacraments and the rituals of the church as well as issues of pastoral ethics.

MIN 317 Leadership in the Church (3, S05 & alternate years)
Study of the pastoral office as it relates to the roles of counselor and administrator. Theories and techniques of pastoral counseling are considered. The administrative duties of the pastor are emphasized, with particular focus on church management, Parliamentary Law, and *The Discipline of The Wesleyan Church*.

MIN 324 Principles of Expository Preaching (4, S)
Focus is given to the preparation and delivery of sermons. Combines the theory of organizational structure along with the tools and techniques for biblically-based preaching. Includes practice in preparing and preaching various types of expository sermons. Prereq: Public Speaking or permission.

MIN 325 Life in the City (3, F)
(See course description in Off-Campus Programs--Houghton in Australia section.)

MIN 410 Ministerial Field Education (3, summer)
Professional field experience in a local church, during a summer internship. Combines theory and practice of ministry through seminars and on-site supervision; focuses upon pastor as worship leader and pastor as shepherd.

URMN 250 Evangelism and Social Action in the Urban Context (3, May)
Examination of the biblical basis of evangelism and social justice. Through biblical, historical, and sociological/anthropological analyses and personal observation projects, students will assess ways in which evangelism and social action are related, and will have an opportunity to develop their own theology and strategy of outreach. Taught on West Seneca Campus.

REL 482 Senior Capstone: Seminar in Religion (2, F)
A senior capstone colloquium required of all students with a major in Religion or Educational Ministries.

SOCIOLOGY (major and minor)
Department of Psychology and Sociology: Daryl H. Stevenson, chair
Faculty: Jonathan Arensen, Jayne Maugans, Richard Perkins

Major: (24 hours in the major)

General Information

Human conduct cannot be adequately understood without recognizing various social forces constantly shaping it. Sociology seeks to draw analytical links between individuals and the structural and cultural contexts in which they live. The major in sociology therefore develops analytical skills that are basic to a liberal arts education. These skills are useful to students wishing to develop an intellectual awareness of who they are and others around them as a result of studying the social system surrounding them. In particular, sociology is excellent preparation for students anticipating careers in criminology, politics, law, health services, management, ministry and missions, social work, urban planning and related areas.

Principles of Sociology (SOC 101) is prerequisite to all additional coursework in the disciplines except anthropology.

Required courses:

SOC 282 Sociological Theory	3
SOC 309 Statistics	3
SOC 312 Social Science Research Methods	3
SOC 480 Senior Capstone: Sociology Seminar	3
Elective sociology courses	12

Minor: (12 hours above SOC 210, including at least three hours numbered 300 or above - except 309 Statistics)

(NOTE: No minor may include more than six hours of field experience credit.)

Course Descriptions

SOC 101 Principles of Sociology (3, F&S)
Introduction to the sociological perspective; development and systematic use of concepts. Satisfies integrative studies requirement in the social sciences. *NOTE: SOC 101 is prerequisite to all other sociology coursework, except anthropology.*

SOC 222 Social Problems (3, S)
Survey of contemporary social problems in American society. Analyses based on conflict and labeling theories, emphasizing ideological origins whereby certain behaviors are defined as problems.

- SOC 231 Criminology** (3, OD)
Consideration of elements in criminal justice system. Discussion of dilemma of promoting social order while protecting individual rights.
- SOC 237 Introduction to Marriage and Family Studies (CDRP, see Foreign Languages)** (3, F)
The changing structure and functions of marriage and the family in modern society; emphasis on dating patterns, marriage selection, sex roles, childbearing patterns, and family life cycles.
- SOC 243 Cultural Anthropology (CDRP, see Foreign Languages)** (3, S)
Cultural and social aspects of human behavior; comparison of cultures.
- SOC 275 The Criminal Justice System** (3, F)
This course will examine the dilemma involved in the relationship between "law and order" within liberal societies like the United States. In democratic "free" societies, there is a constant tension between the need for social order (and police efficiency in suppressing crime) and procedural law involving Constitutionally protected rights. We will examine the police, courts, prisons, probation and parole systems in light of this tension.
- SOC 282 Sociological Theory** (3, F)
Consideration of the major 19th century contributors to sociological theory of the 20th century; sociological perspectives they helped to form: functionalism, conflict theory, symbolic interaction.
- SOC 293 East African Cultures** (3 or 4, S)
(See course description in Off-Campus Programs-Tanzania section.)
- SOC 295 Special Topics in Sociology** (3, OD)
Topics offered according to interest and demand.
- SOC 296 Special Topics in Anthropology** (3, OD)
Topics offered according to interest and demand.
- SOC 297 Special Topics in Family Studies** (3, OD)
Topics offered according to interest and demand.
- SOC 309 Statistics** (3, F&S)
Study of descriptive and inferential statistics, including analysis of variance and measures of correlation. Focus on application to social and psychological data. Recommended for sophomore year.
- SOC 312 Social Science Research Methods** (3, S)
Basic scientific method, application to social phenomena; procedures and methodological problems in various types of social research; methods of data analysis. Recommended for junior year, after completion of SOC 309.
- SOC 322 Social Stratification** (3, S)
Major theories and evidence relating to the origin, nature, and social consequences of stratification systems of social inequality in contemporary United States.
- SOC 325 Life in the City** (3, F)
(See Off-Campus Programs -- Houghton in Australia.)
- SOC 330 Culture and Family (CDRP, see Foreign Languages)** (3, S)
A multicultural and cross-cultural exploration of family environments, history, processes, and structures in various types of societies throughout the world, relying on sociological and anthropological principles.
- SOC 338 Sociology of Religion** (3, S)
Study of collective religious behavior from social scientific perspective; examine social factors related to secularization, rise of new religious groups, patterns of contemporary belief and practice.
- SOC 345 Sociology of Aging** (3, OD)
Examines the aging in America as an interdisciplinary topic. Analysis of the socio-historical and socio-political dimensions of aging. Multicultural perspectives included.
- SOC 351 The Individual and Society** (3, S)
Examines the major dilemmas that profoundly affect life in post-industrial Western society: dilemmas between individual freedom and social equality, and between rational organization and community. (Recommended for students planning to attend graduate school.)
- SOC 361 Majority-Minority Relations** (3, S)
Examines relationships between dominant (majority) and subordinate groups (minority), covering racial, ethnic, and religious conflicts in the U.S. and around the world. Analyzed are forms and causes of prejudice and how to reduce it, the origins of inequality, the effects of colonialism and modernization, and current trends in majority-minority relations.

SOC 362 Gender Relations	(3, F)
Introduction to gender relations; focus on gender roles over life cycle. Includes multicultural perspectives on gender relations.	
SOC 390 Practicum in Family Studies	(1,2,3, F&S)
Supervised experience in a family services setting integrating theory with professional practice. Requires junior or senior standing and the completion of at least nine hours in the Family Studies minor and permission of the department. Contact: Dr. Maugans.	
SOC 394 Internship in Family Studies	(6,F&S)
An optional supervised experience in a family studies setting integrating theory with professional practice. By application only through the department. Contact: Dr. Maugans	
SOC 410 Practicum in Sociology	(1, 2, 3, F&S)
Supervised experience in a sociological setting integrating theory with professional practice. Requires permission of the department. Contact: Dr. Maugans	
SOC 415 Internship in Sociology	(6,F&S)
An optional supervised experience in a sociological setting integrating theory with professional practice. By application only through the department. Contact: Dr. Maugans	
SOC 480 Senior Capstone: Sociology Seminar	(3, S)
Capstone course of the major which will include readings, informed discussions of contemporary concepts and issues, and a paper with accompanying PowerPoint presentation on some topic in the discipline.	
SOC 191, -2; 291, -2; 391, -2; 491, -2 Independent Study	(1, 2 or 3)
SOC 496 Honors in Sociology	(3, S)

SPANISH (see Foreign Languages)

THEOLOGY (minor)

Department of Religion and Philosophy: J. Michael Walters, chair
Faculty: John Brittain, Richard Eckley, Harold Kingdon, Kristina LaCelle-Peterson, John Tyson, J. Michael Walters

Minor: (12 hours)
The theology minor provides concentrated study in Christian doctrine, apologetics, and church history.

Minor required courses:

THEL 313 Systematic Theology	3
Remaining hours	9

(selected from the following list except THEL 209)

Course Descriptions

- THEL 209 **Introduction to Christianity** (3, F, S)
An introductory survey of the main beliefs and practices that constitute the Christian tradition. Christianity will be approached in a way that overcomes the traditional division between doctrine and practice. The Biblical, theological, historical, ethical, and spiritually formative aspects of Christian faith will be explored. The course aims to enable the student to develop a personal theology and life perspective that is informed by Christian faith and Christian spirituality. Prerequisite: BIBL 101
- THEL 214 **The Cults and New Age** (3, May)
Definition and classification of Christian cults and the New Age Movement, including the Occult. Origins and doctrines of, plus practices and trends in, some of the current Christian cults and New Age groups (e.g. Mormons, Jehovah's Witnesses, Transcendental Meditation).
- THEL 215 **Christian Apologetics** (3, S06 and alternate years)
The course seeks to "give reason for the faith that is written within us" by making theological reply to those questions raised when Christian faith collides with contemporary situations. Classical and contemporary questions and methodologies will be considered.
- THEL 300 **Christianity and Postmodernism** (3, F)
(See course description in Off-Campus Programs--Houghton in Australia.)

THEL 313 Systematic Theology (3, F05 and alternate years)
Survey of the main tenets of the Christian faith. Doctrines examined in light of Biblical basis and constructive formulations. Introduces the student to Christian theology and equips the student to develop a personal theology.

THEL 315 Wesleyan Tradition (3, F)
Study of the Wesleyan movement from the Wesleys to the present. Emphases on the history of The Wesleyan Church and the doctrine of holiness.

THEL 320 Spiritual Formation (3, F)
Examines the nature and process of spiritual growth and maturation in the life of the Christian. As an academic course of study, this class arises out of ascetical theology and thus emphasizes the writings of early, medieval, and later Christians. Primary emphasis is given to the role of the classical spiritual disciplines in the formation of character. Prerequisites: THEL 209

THEL 321 World Religions (3, S)
Background, major teachings of Eastern religious and philosophical thought. Emphases on understanding and evaluating non-Western ideas, practices.

THEL 333 Major Figures in Theology (3, OD)
In-depth study of one or more figures in Christian theology, with an emphasis upon primary source material for examining the theologians in the context of their lives and times.

THEL 334 Studies in Theology (3, OD)
Topics of current theological interest. Specific schools of theology, doctrines, or theological trends will be considered.

THEL 337 Theological Foundations of the Family (3, OD)
Study of major conceptual designs for family. Will emphasize a comparative analysis of religious models and the relationships between these influential systems and family practices. Introduces students to the role of the family in ethical value formation.

THEL 351, 352 Biblical Theology (3/3, F04/S05 and alternate years)
Examination of the teaching of the Old and New Testaments, developed from the distinctive perspective of Biblical theology. Major themes and methods of inquiry. Fall: Old Testament; spring: New Testament.

THEL 368 The Reformation (3, OD)
(Alternative number for history major credit: HIST 368) A survey of the continental, English, and Roman Catholic reformation of the sixteenth century.

THEL 453, 454 History of Christianity (3/3, F/S)
Ancient, medieval, modern development of Christianity in historical context; doctrines, prominent lives, institutions of each era. Fall: ancient to medieval; spring: reformation through modern. (Integrative Studies credit)

THEL 191, -2; 291, -2; 391, -2; 491, -2 Independent Study (1, 2 or 3 hours)

THEL 496 Honors in Theology (3, S)

URBAN MINISTRY (minor)

(see also Intercultural Studies urban ministry concentration)

Department of Religion and Philosophy: J. Michael Walters, chair

Faculty: Richard Eckley, Paul Shea

Minor: (15 hours)

It includes the four courses listed below and Foundations of Educational Ministry (EDMN 231), or Introduction to Christian Ministries (MIN 210, see Religion).

Course Descriptions

URMN 212 Urban Ministry (3, OD)
What is the ministry of the church and individual Christians within diverse, complex metropolitan areas? Introduction to the Bible and to research in behavioral sciences on the city, with field trips and projects in the community.

URMN 250 Evangelism and Social Action in the Urban Context (3, May)
Examination of the Biblical basis of evangelism and social justice. Through Biblical, historical, and sociological/anthropological analyses and personal observation projects, students will assess ways in

which evangelism and social action are related, and will have an opportunity to develop their own theology and strategy of outreach. Taught on West Seneca Campus.

URMN 300 Urban Ministry Field Experience and Seminar (3, OD)
Supervised field experience in a core-city church or para-church organization. Seminar with weekly cluster meeting of participating students to synthesize academic and field experience as a group. Requires 120 hours of field work. Prerequisites: URMN 212 and declaration of minor.

URMN 325 Life in the City (3, F)
(See course description in Off-Campus Programs--Houghton in Australia.)

URMN 350 The City in Biblical and Theological Perspective (3, OD)
In-depth survey of the Scriptures from Genesis to Revelation examining the city as symbol and social reality. Analysis of various theological perspectives (Augustine, Ellul, Cox, Mouw, and others). Prereq: URMN 212, and declaration of minor.

WRITING (major and minor)

Department of English and Communication: Douglas M. Gaerte, chair
Faculty: Charles E. Bressler, Laurie A. Dashnau, John R. Leax, Linda M. Woolsey, James A. Zoller

Major: (30 hours in the major; 6 of those hours may be taken outside the department)

General Information:

The writing major provides students with a strong liberal arts preparation for a variety of careers including journalism, publishing, law, advertising, public relations, and business. The major is designed to help students develop their skills in recording and communicating information as well as their ability to use writing as a tool for thinking, forming ideas, and solving problems.

Required courses 9

WRIT 212 Advanced Composition: Rhetorical Patterns

WRIT 401, 402 Senior Capstone: Writer's Workshop

The remaining 21 hours of the major are contracted with an advisor from the writing department. This contract is filed with the records office when a student declares a writing major. Students are not permitted to count more than two writing courses a semester toward their major.

Minor (12 hours)

Course Descriptions

WRIT 211 Advanced Composition: Narrative and Personal Essay (3, F,S)
A course in the informal essay based on personal experience. Emphases on descriptive and narrative techniques, craftsmanship, style.

WRIT 212 Advanced Composition: Rhetorical Patterns (3, F,S)
A course in formal expository and persuasive writing in patterns such as process analysis, definition, comparison and contrast, cause and effect. Includes library research.

WRIT 213 Advanced Composition: Writing about Literature (3, F,S)
A course in writing literary criticism on the four major genres and in typical formats such as character analysis, poetry explication, annotated bibliography. Development of critical vocabulary in the field.

WRIT 301 Writing of Fiction (3, F)
Techniques of the traditional short story.

WRIT 302 Writing of Poetry (3, S)
Techniques of open and closed verse.

WRIT 303 Periodical Writing (3, S)
Advanced techniques of magazine features and article writing. Study of free-lance periodical markets.

WRIT 306 Creative Nonfiction: Writing about Nature, Landscape, and the Environment (3, S)
Keeping a writer's field journal, the experience in nature essay, and feature articles. Survey of environmental journals and internet resources.

WRIT 307 Creative Nonfiction: Writing about Spiritual Experience (3, F)
Keeping a spiritual journal, writing and evangelism, the meditative essay, devotional writing. Survey of the religious marketplace.

- WRIT 308 Creative Nonfiction: Writing about Cultural Issues** (3, F)
Identifying issues from all areas of contemporary life. Identifying approaches to these issues. Writing columns and editorials. Writing for specific audiences.
- WRIT 320 Special Topics in Writing** (3, OD)
Opportunity for study of issues and problems of writing not covered elsewhere in the curriculum.
- WRIT 401, 402 Senior Capstone: Writer's Workshop** (3, 3, F&S)
Workshop-based, project-centered, portfolio development, writing community experience for senior majors and minors. Intensive writing in genres selected by students. Integration of faith and creativity. Three hours writing studio, one hour workshop/lab each semester. 401 devoted to early drafting and consultation with instructor; 402 to revision, polishing, portfolio development and class workshop. 401 must be taken first. Students enrolled in Writer's Workshop should also enroll in the discussion section.
- WRIT 412 Literary Criticism** (3, F)
Theoretical and practical study of the principles of criticism. Emphasis on contemporary critical schools. Brief historical survey. Prerequisite: six hours of literature above ENGL 210.
- WRIT 291, -2; 391, -2; 491, -2 Independent Study** (1, 2, or 3)
- WRIT 496 Honors in Writing** (3, S)
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YOUTH MINISTRY (see Educational Ministries, Youth Concentration)



Off-Campus Programs

Director: Dr. Marcus Dean

These programs are under the general direction of the academic dean and are staffed by the faculty assigned to various academic departments. Houghton College students have access to several unique programs, as outlined in the academic information section earlier in the catalog. Some are operated entirely by Houghton College, others in cooperation with the Council for Christian Colleges and Universities or the Christian College Consortium. Information is available through the Off-Campus Programs Office located in the academic building, Room 214.

HOUGHTON-SPONSORED PROGRAMS:

First-Year Honors Program - Program director/associate: Drs. Cameron Airhart and Chris Stewart

This course of study in the spring semester for selected first-year students merges a traditional humanities curriculum with the opportunity to study in London. Combining history, literature, philosophy, and the fine arts, this curriculum is a connected narrative of western ideas and culture from the ancient Greeks through the 20th century. London's museums, galleries, architecture, and theater provide a rich and dynamic learning environment, affording students a thorough preparation for more advanced study. Course description follows.

Houghton in London - Program director/associate: Drs. Cameron Airhart and Chris Stewart

In this fall semester program, upperclass students take 15 hours of credit in five courses. Although intentionally unique, the courses are designed to meet Houghton integrative studies requirements. The employment of British Christian professors, living and studying together in a global, metropolitan community, London's rich historical and cultural resources, and opportunities for travel greatly enhance this semester. (Course list follows.)

Houghton in Tanzania - Program director: Dr. Jon Arensen

An intensive spring semester experience, Houghton in Tanzania offers the unique opportunity to study anthropology, history, animal ethology, linguistics, intercultural studies, and ecotourism in East Africa. Students will visit the Wahehe, Masaai, and other tribes, observe dozens of animal species in natural habitat, and soak up the history, language and culture of East Africa.

During the semester in Tanzania, a student may earn between 12 to 18 hours. (Course list follows.)

Houghton in Australia - Program directors: Drs. J. Michael Walters and Paul Young

In close collaboration with Kingsley College in Melbourne, Houghton has established a one-semester (15 to 16 credits) exploration of faith and life in Australia. The 13-week academic program, designed as an accessible cross-cultural experience, runs from mid-August to late November. (Course list follows.)

Houghton in Adirondack Park - Program director: Dr. James Wolfe

The Houghton in Adirondack Park program is a fall semester of an integrated seamless curriculum consisting of 16 or 17 credits in natural history, writers in nature, artists in nature, recreation, political science, and ethics. The semester begins in mid-August and ends before Thanksgiving and is located at the Houghton Star Lake campus. The program emphasizes field study using the Adirondack Park as the living laboratory for observation, analysis, and reflection. One Houghton faculty member in residence will be joined by other Houghton faculty and guest speakers who will guide 25 students through reading assignments and field trips.

Successful completion of this program is an alternate route for fulfilling the Environmental Stewardship minor. (Course list follows.)

Oregon Extension

Houghton College's Oregon Extension Program, based at Ashland, Oregon, offers students a major change of pace and locale through studying for a fall semester in the Pacific Northwest. Courses are presented seminar-style in short blocks, interspersed with unique and personal encounters with all aspects of the environment of the campus and region.

During the semester at Oregon Extension, a student may earn 15 credit hours. (Course list follows.)

COURSE LISTINGS

FIRST-YEAR HONORS

INTS 152 Honors Study in London (15, S)

Combines a traditional humanities curriculum with the opportunity to study in London. Integrating the disciplines of history, literature, philosophy, and the fine arts, this course surveys the birth and maturation of western culture from the ancient Greeks through the 20th century. London's museums, galleries, architecture, and theater provide a rich and dynamic learning environment. Admission is selective. Satisfies Level I Integrative Studies requirements in western civilization, philosophy, literature, and fine arts.

HOUGHTON IN LONDON

ART 230 Art in Europe Since the Renaissance (3)

This course is an overview of the major phases of painting, sculpture and architecture in Europe from 1300 to the present day. The course is structured around a series of classroom lectures, with slides and/or videos, which are related to set texts and to class visits to selected major London art collections. The purpose of the course is not only to impart historical knowledge but also to develop visual skills in analyzing how and why individual works of art look the way they do. Integral to the course, therefore, is also a series of sessions dealing with how works of art are made, e.g. materials, composition, use of light, shade, and color. Course assessment is through class-based written analysis of one or more works of art (shown on slides) and essays based on lectures and individual research. (IS Level I Art or Music, and major/minor credit)

BIBL 395 Special Topics in Bible: Luke's Two Volumes (3)

This course undertakes a close examination of the Gospel of Luke and Acts focusing on their narrative flow and unity, but also examining parts of the text for literary/historical detail and tracing various themes. The sessions will mainly be discussions around focus questions on texts, but there will be occasional lectures covering background. (IS Level II Advanced Bible, and major/minor credit)

ENGL 390 Special Topics in Literature: Dramatic Lines (3)

This course uses current dramatic productions in London as a resource for discussing connections between British drama present and past, Continental drama and British drama, and colonial and post-colonial drama. (IS Level II Languages and Literature, and major/minor credit)

ECON 295 Special Topics: Globalization—Challenge or Threat? (3)

This course weaves together economic, sociological, and economic perspectives with a view to understanding the complexities and impact of globalization—the growing interdependence of people throughout the world—establishing criteria by which to evaluate its effects. This is a new course, currently under development. The fundamental theme of the course is reflected in the tentative course title. The idea is to explore the phenomenon of globalization from a number of disciplinary angles, emphasizing the social sciences. As such, the course satisfies integrative studies requirements in social science, and also major credit in business/economics and/or intercultural studies.

HIST 319 The History of Islam (3)

This course will provide a survey of Islamic history between approximately AD 570-1979, representing Islam's inception with the birth of Muhammad and concluding with the Iranian revolution. It will cover major personalities, dynasties and themes. These will include the life of Muhammad, the Umayyad, Ottoman, Mughal and other great Islamic empires. Also addressed will

be competing ideologies which have been most prominent throughout Islamic history, such as the debate between scholastic theology and textual literalism, and the rise of Islamic modernism in the early 20th century. The course will also consider the geographical diversity of Islamic history, covering Southeast Asia, the Indian subcontinent and the Middle East.

HOUGHTON IN TANZANIA

Core courses

HIST 251 East African History (3)

East African history: from prehistoric rock painting and early migrations to the enchanting era of explorers; from the colonial period to the turbulent days of nationalism, independence, and the issues and challenges of today.

SOC 293 East African Cultures (3)

Intensive study of East African ethnic groups - their beliefs, behaviors, work, societies. Lectures, which include foundational anthropological theory as well as ethnic descriptions, augmented by observations and home stays amongst the Masaai, Hehe, and other peoples.

BIOL 207 or 212 Wildlife Behavior in East Africa (3 or 4, S)

Ethology of East African wildlife including the principles of feeding and social behavior, mate selection, migration and communication. Lectures and two weeks of field observations at the Tanzania Field Station. Daily field notes in a journal are required. *Only BIOL 212 may be used for major credit. Additional work will be required.*

Optional courses

INCL/INDS 311 Intercultural Experience (4)

A cross-cultural experience in an approved setting in an area of service related to student's concentration or field of interest. Preliminary studies and research, the dynamics of living and serving, ongoing mentorship, and periodic reflection will result in journaling and final summary synthesis research paper. This experience may be linked to formal study-abroad programs, official internship affiliation, or pre-approved individual arrangements. Prerequisite: INCL 211

ENG 390 ST: African Folk Lore (3)

Africa has a rich heritage of oral literature, much of which, in recent years, has been recorded, translated, and published. This course is primarily a reading course, with students examining, while in the African setting, stories from many ethnic groups in genres such as etiological stories, trickster tales, myths, and morality tales.

MISS 395 ST: Missions in Africa (3)

The Gospel in East Africa. Exploration of the receptivity of the Gospel from first-hand encounter with African Christians and church leaders, analysis of traditions, practice, forms and experiences, and also examination of strategies for furthering the Gospel, including varieties of missionary methods. First-hand contact with numerous missionary efforts and the impact of Christianity and ongoing challenges in East Africa.

HRSM 113 Horsemanship I (1)

Fundamental skills in riding with lab time on horseback.

HRSM 223 Horsemanship II (2)

Principles of horse management and other areas related to equestrian studies. Hunt-seat equitation, basic dressage, cross-country riding.

REC 228 Trip Experience (1)

Basic management and leadership in trekking with excellent African game-park sites.

Other **Special Topic** and **Independent Study** credits may be available on given years or on demand.

HOUGHTON IN AUSTRALIA

Required Courses (ten hours)

HIST/THEL 306 Australian History (3)

Surveys Australian history from the Dreamtime to the present, examining the roles of the Christian church, people, events, and issues in shaping Australia.

MIN/MISS/URMN 325 Life in the City (3)

What is life in a large, cosmopolitan, Australian city? Study social problems of urban life, analyze ministry options, and investigate effective responses.

INTS 301 Engaging Australian Culture (1)

Weekly exploration of Australian culture outside the classroom through travel, cultural events, and talking with Australians.

AND either of the following:

PHIL/THEL/MISS 300 **Christianity and Postmodernism** (3)

How does postmodern philosophy relate to Christian faith? How should Christians live in a postmodern culture, which Australia exemplifies?

ENGL 308 **Australian Literature** (3)

Studies the diversity of Australian literary traditions and texts in light of Australian critical approaches, such as post-colonial theory and other cultural study models.

Elective Options: An advanced **Bible** course (3)

Christianity and Postmodernism (3) and **Australian Literature** (3)

Other selected credits may be offered in given years and on demand.

HOUGHTON IN ADIRONDACK PARK

BIOL 213 (3 credits, for non-majors) **Natural History of the Adirondacks** (3, F)

BIOL 225 (4 credits, for major/minor credit) **Natural History of the Adirondacks** (4, F)

An introductory study of the physical and biological characteristics of the terrestrial and aquatic ecosystems of the Adirondack Park. Topics include field identification of local flora and fauna, old growth forest characteristics, human disturbance, atmospheric deposition, and environmental stewardship. Extensive field trips in the northern Adirondack Park are included. BIOL 225 may be used for biology major or minor credit and has a pre-requisite of BIOL 151 and 152.

ENGL 217A **Writers in Nature** (3)

Survey of American nature writers from William Bartram to contemporary writers such as Wendell Berry and Annie Dillard. Emphases on historically significant figures and Adirondack writers. Development of the form and content of the nature essay in response to scientific and cultural change. The emergence of competing ethics governing the interactions of humans and creation is addressed.

ART 129, 229 **Artists in Nature** (3 or 4)

Focus on the visual arts with nature as subject and source of inspiration: history and appreciation of works produced by major artists/cultures working within Western and non-Western traditions as well as work by Adirondack regional artists; includes some hands-on drawing from nature, on-site in the Adirondack Park

REC 105 **Outdoor Pursuits: Canoeing and Backpacking** (1)

Appreciation and stewardship of God's creation through outdoor recreation in the Adirondack Park. Emphases are placed on physical fitness, trip planning, skills and philosophies with canoeing, and backpacking.

POLS 295B **Special Topics: Governing the Adirondacks** (3)

Focuses on the special relationship of conservation and regulation that has characterized the unique experiment known as the Adirondack Park. Places Adirondack governance and politics in the context of the global community and conservation efforts.

PHIL 210 **Community, Ideology, and the Environment** (3)

This course will explore the connections between the normative inquiries of political philosophy and environmental ethics within the broader context of Houghton's Adirondack program.

OREGON EXTENSION

Segment no. 1: Contemporary Society

History 395 **The Contemporary World** (4)

Selected contemporary social, political, and economic issues in American and world civilization, with special concern for those which give individual and social life their distinctive characteristics or spirit and provide insight into the underlying dynamics of modern history.

Sociology 395 **Contemporary Social Criticism** (4)

An examination of selected contemporary social issues in American and world civilization, with special concern for those which give contemporary individual and social life their distinctive characteristics or spirit and provide insight into the underlying dynamics of modern history.

Note: all Oregon 396, 397, and 398 courses are individualized studies which also include lectures and readings in related disciplines.

Segment no. 2: Social Thought

Bible 396 **Selected Social Topics in Biblical Perspective** (3)

Biblical texts of relevance to current social issues and of help in understanding the underlying dynamics of human society.

- English 396 **Literary Perspectives on Modern Society** (3)
Examine a specific major author or several authors in a literary period or style, with special concern for their insights into the shape and meaning of their own social *milieu* and of human society in general.
- History 396 **Topics in the History of Social Thought** (3)
Examine the contributions of major selected social (including economic and political) thinkers to an understanding of modern social life and the nature of or necessity for social change.
- Philosophy 396 **Social Issues in Philosophical Perspective** (3)
Examine the ways in which selected philosophers have thought about specific social issues as well as human society in general.
- Political Science 396 **Selected Topics in Modern Political Thought** (3)
Examine the contributions of selected political thinkers to an understanding of the dynamics of human political organization and the implications of their theoretical perspectives for political change.
- Psychology 396 **Social Issues in Psychological Perspective** (3)
Examine the ways in which selected psychological theorists have thought about specific social issues and human society in general.
- Science 396 **Topics in the Relationship of Science and Society** (3)
The place of science in the modern world and of the scientific method in modern thinking with special attention to the impact of science and technology on the social and natural environment.
- Sociology 396 **Topics in Modern Social Theory** (3)
Contributions of major selected social thinkers to an understanding of the dynamics of human social life and the nature of specific social issues.
- Theology 396 **Christian Theology and Current Social Thought** (3)
Contributions of selected theologians to an understanding of specific current social issues and of the underlying dynamics of human society.

Segment no. 3: Human Stories

- Bible 397 **Biblical Perspectives on the Human Condition** (3)
Examine the human condition by means of careful, detailed exegeses of selected, pertinent Biblical texts.
- English 397 **Literary Perspectives on the Human Condition** (3)
Examine the human condition by reference to the works of one or several major authors, supplemented by pertinent biographical and critical sources.
- History 397 **Historical Perspectives on the Human Condition** (3)
Examine the human condition in light of selected significant historical events or thinkers.
- Philosophy 397 **Philosophical Perspectives on the Human Condition** (3)
Examine the human condition as understood by selected major philosophical thinkers or systems of thought.
- Psychology 397 **Psychological Perspectives on the Human Condition** (3)
Examine the human condition as understood by selected major psychological thinkers or systems.
- Science 397 **Biological Perspectives on the Human Condition** (3)
Examine the human condition as understood by selected major scientific (particularly biological) thinkers or systems.
- Sociology 397 **Sociological Perspectives on the Human Condition** (3)
Examine the human condition in light of the scientific study of human social behavior and social theory.
- Theology 397 **Theological Perspectives on the Human Condition** (3)
Examine the human condition as understood by selected major theological thinkers or systems.

Segment no. 4: Faith Living

- Bible 398 **Selected Topics in Biblical Exegesis** (3)
The nature and meaning of the gospel, the core issues of Christian faith, and the human religious phenomenon, by means of careful, detailed exegesis of selected, pertinent biblical texts.
- English 398 **Religion and the Christian Faith in Literary Perspective** (3)
The nature of Christian faith and the human religious phenomenon by reference to the works of selected major literary figures or movements.
- History 398 **Topics in Religious and Church History** (3)
Selected major themes, persons, or events in the history of religion and of Christianity, with special reference to a Biblical critique of human religious behavior.

Philosophy 398 **Selected Topics in the Philosophy of Religion** (3)
The nature of Christian faith and the human religious phenomenon as seen by selected major philosophers or world religions.

Psychology 398 **Selected Topics in the Psychology of Religion** (3)
Selected significant religious doctrines, experiences or sensibilities from a psychological point of view, with special reference to a Biblical critique of human religious behavior.

Science 398 **Modern Science and Christian Faith** (3)
The historical and philosophical interactions between scientific theory, knowledge and patterns of religious belief, and experience in history.

Sociology 398 **Selected Topics in the Sociology of Religion** (3)
Selected significant religious doctrines, experiences or sensibilities from the sociological point of view, with special reference to a Biblical critique of human religious behavior.

Theology 398 **Selected Topics in Christian Theology** (3)
Nature and meaning of the gospel, the core issues of Christian faith, and the human religious phenomenon, from the perspective of selected major Christian theologians.

Running through all segments for all students:

Composition and Rhetoric 399 (3)
Individualized and group instruction in discussion participation, research skills, essay writing, and formal oral presentation.

COUNCIL-SPONSORED PROGRAMS:

Opportunities in the CCCU

Because Houghton is a member of the Council for Christian Colleges & Universities, an association of more than 90 private liberal arts Christian colleges and universities, a number of off-campus learning opportunities (and some course descriptions) are available below:

AMERICAN STUDIES PROGRAM

The American Studies Program, designed for juniors and seniors, serves as the "Washington, D.C., campus" of Council member colleges. Based on the principle of integrating faith, learning and living, students spend a semester in D.C. earning academic credit by serving as interns and participating in a contemporary, issue-oriented seminar program. Available internships may include Federal Government Agencies, The Arts, Business and Economics, Communication and Journalism, Education, Environment and Science, History, International Affairs, Law and Criminal Justice, Public Interest and Research Groups, or Social Services.

Course Descriptions

Foundations for Policy Analysis & Public Involvement (2 credits)
This unit introduces foundational concepts for analyzing public policy and for Christian involvement in public affairs. You learn basic policy analysis techniques and study the pattern of biblical revelation (creation, fall, redemption, consummation) as an analytical framework. You'll also select a policy topic of your choice to explore in light of your own background, a Christian worldview and the responsibility of the church in today's world.

Topics in Domestic Policy (3 credits)
Involving field research and applying tools of policy analysis, the course builds on the foundations unit, introduces various perspectives on social and political engagement in the domestic arena. Biblical justice becomes the point of departure for analyzing different views on a pressing national issue. This course is designed to expose you to the complex dynamic of national public policy formation on topics such as abortion, welfare reform, tax policy or presidential elections.

Topics in International Policy (3 credits)
This unit focuses on a major topic in international community. Through case study research you are challenged to develop a biblical perspective on foreign policy. The unity typically emphasizes ways of dealing with conflict and the biblical idea of shalom on the role of governments and of the church in the world. Some of the issues previously studied in this unit include terrorism, the Asian Economic Crisis, U.S.-Cuba relations, war in Iraq and more.

Internships (8 credits)
An ASP internship can challenge you to integrate your faith with practice in an exciting professional setting while giving you experiences, skills and vision that will continue to help you grow years after your internship ends. To receive the eight semester hours of credit for your internship, you must work a minimum average of 20 hours a week and reflect in writing on your internship experience. Since you'll be earning academic credit, internships are unpaid.

CHINA STUDIES PROGRAM

This program makes use of the rich resources of the People's Republic of China to give student participants the opportunity to study this vast and intriguing country from the inside. Home bases for the program are in Xi'an at Xi'an Foreign Languages University and in Shanghai at Fudan University, leading universities in the country. Students spend a week in Beijing and visit Hong Kong at the beginning and end of the semester.

In addition to Conversational Chinese, modular courses are offered in Chinese History, Culture and Geography; Contemporary Chinese Society; Economic Development and Reform Policies; and Politics and Foreign Affairs in China. Courses take advantage of sites of historic, cultural, and current significance in the country.

Course Descriptions

Conversational Chinese (3 credits)

This course in introductory Chinese focuses on acquiring survival fluency in spoken and written Chinese. The emphasis is on the spoken form of Mandarin Chinese, the national language of China. Students who already have studied Chinese may apply for a more advanced class, in which they would study with other international students studying at Xiamen University. All students take the written exams for Chinese characters, vocabulary, and grammar of the Conversational Chinese course.

Chinese History, Geography, and Culture (3 credits)

This course covers the history of China from its earliest beginnings up to the present. Students become familiar with the major dynasties of China and their characteristics. Topics include Chinese philosophy, classics, history, and geography. On study tours, students visit many of the most famous Chinese sites of historical interest and give presentations about that site or a related event. [Possible credit: history, geography, cross-cultural studies]

Contemporary Society and Public Policy (3 credits)

This course focuses on upheavals that have transformed society since the Reform Policies of 1979. Topics include the government structure, educational system, population control, ethnic minorities, legal reforms, mass media, China-U.S. relations, as well as religious policy, Christianity, Buddhism, Daoism, Confucianism, and Folk Religion. Students also study religious traditions and life in China through lectures and visits to temples and monasteries. [Possible credit: political science, cross-cultural studies, sociology, history]

Modernization and Economic Development (3 credits)

This course focuses on the economic changes in China since the late 1970s. Topics include economic policies from 1949-present, food production, rural reform, township and village free enterprise, state-owned enterprise, foreign investment, special economic zones, environmental repercussions, Hong Kong and Macau's special administrative status, and the World Trade Organization. [Possible credit: political science, international business, business and economics, sociology]

Intercultural Communication (3 credits)

This seminar emphasizes the parallels in learning a language and learning a culture, and how the two experiences inform each other. Topics include Chinese language, spelling, tones, and characters; culture and basic values, culture shock, individualism and collectivism; and intercultural transfer, interference, and borrowing. [Possible credit: sociology, cross-cultural studies, communication, linguistics]

Elective Courses (1 credit)

Students may choose either, both, or none of the following elective courses:

Local Art and Customs – This is an independent study in which students individually explore aspects of Chinese arts (such as acupuncture, calligraphy, painting, poetry, etc.) and make oral presentations to the class, sharing what they have learned.

Tai Chi -- Taiji, a gentle and stylized form of self-defense, tones the body and concentrates the mind. Students learn the techniques, postures, and routines of taiji from a Chinese master. [Art or Physical Education credit recommended]

CONTEMPORARY MUSIC CENTER

This interdisciplinary off-campus study program provides a community for young musicians and aspiring music executives to plumb the depths of their creative souls and test the waters of a career in popular music. Designed as an artists' community, the program seeks to develop artists and music executives with a Christ-centered vision for music content, production and delivery. The mission of the CMC is to prepare students academically and creatively for potential careers in the music industry.

See the Academic Records Office for course descriptions.

LATIN AMERICAN STUDIES PROGRAM

An opportunity to live and learn in Latin America is available to students from Coalition member colleges through this program located in San Jose, Costa Rica. Two specialized tracks, International Business and Management and Tropical Sciences and Sustainability, are available to qualified students. The LASP is committed to helping students examine and live out the Lordship of Jesus Christ in an intentional context.

Course Descriptions

Spanish Language Study (6 credits)

Students come to Costa Rica with varying degrees of fluency in Spanish, so LASP places them in the Spanish course that corresponds to each participant's level of oral proficiency based on a placement exam and interview during the orientation. Students study grammar, conversation, phonetics and/or literature based on the results of their tests. Classes are taught by Latin Americans, which means participants hear and learn the language the way it is spoken in Latin America. This is reinforced during everyday interaction with Spanish-speaking host families.

Latin American History, Contemporary Issues and Perspectives (3 credits)

This seminar introduces the social, historical, political, economic, philosophical and theological currents that constitute Latin American society and culture. The course includes personal discussions with Latins and field trips to various sites.

Travel Practicum (1-3 credits)

The LASP group travels to several countries in Central America during the semester. The travel practicum component is not a vacation trip; it is an integral part of the learning process. Among other assignments, students will be required to attend conferences and maintain a journal of ideas and perceptions developed throughout the trips.

Concentrations

Latin American Studies Concentration

Faith and Practice Seminar (3 credits)

Service Opportunity/Internship (3 credits)

This concentration is interdisciplinary by design. Students are challenged in a seminar that includes diverse perspective, broad readings and group presentations which respond to scenarios drawn from the contemporary scene. Participants also gain valuable first-hand experiences in related service opportunities. In recent semesters, these have been organized in neighboring countries throughout Latin America. (Prerequisite: Equivalency of one year of college Spanish)

Advanced Language and Literature Concentration

Language and Literature Seminar (3 credits)

Service opportunity/Internship (3 credits)

This concentration focuses on the social, cultural, political, economic and religious issues of Latin America in the target language. Students examine how Latin Americans view their neighbors to the north. As a part of this concentration students examine Latin America through its literature, using it as a means to examine society and culture. (Designed for Spanish language majors with a minimum of one year of college or university intermediate Spanish and one semester of advanced Spanish conversation and/or composition.)

Environmental Science Concentration (Spring Semester only)

Science Seminar (4 credits)

Field Research (2 credits)

Participants in this concentration explore the natural sciences in a tropical setting and study their influence on the process of sustainability. Students are immersed in a variety of ecosystems: dry forests, lowland rain forests, mountain cloud forests, volcanic regions, as well as beautiful reefs. Costa Rica serves as a natural laboratory.

(Required prerequisites: One semester of zoology or an applied laboratory science. Recommended prerequisites: One semester of general chemistry or physics.)

LOS ANGELES FILM STUDIES CENTER

The components of the Los Angeles Film Studies Center are designed to integrate a Christian world view with an introductory exploration of the work and workings of mainstream Hollywood entertainment.

Course Descriptions

LAFSC Internship (6 credits)

Nonpaying internship in some aspect of the Hollywood film or television industry, arranged by the

LAFSC. Internships are primarily in an office setting such as development companies, agencies, personal management companies, production offices, etc.

Hollywood Symposium

(1 credit)

A series of lecture/discussions focused on the development and integration of a Christian worldview as it relates to the Hollywood entertainment industry. Students are expected to engage in interactive events, as well as submit a summary paper(s). Topics include "a theology of Hollywood", "ethics in the entertainment business", and "practicing Christianity in Hollywood".

Faith, Film, and Culture

(3 credits)

A study of the relationship between film and popular culture, with emphasis on Christianity's role in these arenas. Examines how faith, film, and culture mutually influence one another. Gives overview of historical relationship between the church and the movies, an understanding of a theology of the arts, a cultural studies approach to the nature of the arts in popular culture, and the Christian's role in identifying, discerning, and ultimately influencing movie content.

(AND two of the following)

Acting in Hollywood

(3 credits)

An introduction to the practice and process of acting in the Hollywood entertainment arena. Topics include the role of agents, managers, casting directors and unions; equity waiver theatres and showcases; photos and resumes; and an exploration of the audition process used for commercials, live theatre, film and television. The class will provide a limited number of both off- and on-camera acting exercises. Attention will also be given to the unique role and demands that the acting profession places on the Christian actor.

Introduction to Filmmaking

(3 credits)

Introduction to the theory and practice of motion picture filmmaking. Topics: familiarity with filmmaking equipment; basic motion picture techniques; converting idea to image; use of lighting, editing and sound in film; and the role of acting, directing, and good storytelling in the filmmaking process. Students make several short films that manifest their faith in content and process.

Screenwriting

(3 credits)

An introduction to contemporary screenwriting, including an understanding of dramatic structure, character and dialogue development, and the writing process. Students strive to complete a full-length screenplay for a feature film or "movie-of-the-week." Emphasis is given to the role of Christian faith and values as they relate to script content.

Seminar in Producing the Independent Film

(3 credits)

An introduction to the process of producing an independent feature film. Topics include legal structures, business plans, preproduction activities such as scheduling and budgeting, and an overview of the producer's role in production, post-production, and distribution. Attention is given to the Christian's unique contribution to producing.

MIDDLE EAST STUDIES PROGRAM

The MESP in Cairo, Egypt, provides students with the opportunity to study Middle Eastern cultures, religions, and conflicts from within this diverse and strategic region. Juniors and seniors participate in interdisciplinary seminar classes, receive Arabic language instruction and serve as volunteers with various organizations in Cairo. The MESP encourages and equips students to relate to the Muslim world in an informed and constructive manner. Trips to Israel, Palestine, and Jordan are included.

Course Descriptions

Introduction to Arabic Language

(4 credits)

This course is taught by native speakers of Arabic, Dr. Cahill and guest lecturers, trained at the American University in Cairo. The purpose of the course is for students to acquire basic facility in the spoken Arabic of Egypt.

After a brief survey of the historical development of Arabic in the Middle East, both oral and written exercises form an integral part of the classroom program. This course incorporates the concept of communicative language acquisition to maximize the interaction of students with speakers of Arabic. The language portion of this course consists of small group classes (six to ten students per instructor) held four days a week. Focusing on spoken Arabic, students are given a solid introduction to Egyptian Colloquial grammar and substantial amount of vocabulary. This course includes periods of total immersion into the language. Students use "Language Lab Cairo" to carry out specific assignments with native speakers in the city. Between classes and "Language Lab Cairo," students spend over 100 hours in language instruction. Students' involvement in weekly service opportunities further facilitates language acquisition. This course should bring the student well into the intermediate level of spoken Arabic. [Possible credit: language/cross-cultural]

Islamic Thought and Practice in the Middle East

(4 credits)

This course examines the doctrines, rituals, jurisprudence, and historical vision of Islam with an emphasis on contemporary expressions of Islam in the Middle East. Special attention is given to the historical origins of religious traditions which are still alive today, namely Sunni, Shi'ite (Zaydi, Isma'ili, and Twelver) and Sufi Islam as well as the central features of Islamic theology and jurisprudence: the Qur'an, the Hadith, Kalaam, and legal reasoning.

Students study modern political and social expressions of Islam, including the Muslim Brotherhood, "Islamic States" (Saudi Arabia, Iran), Muslim women, and gender issues. They are encouraged to carefully examine the historical development and religious claims of these Islamic traditions, especially in regards to the Christian faith. Students encounter the complex diversity of the "Islamic World" and in so doing, gain a better understanding of the diversity of humanity. [Possible credit: history/religion]

Conflict and Change in the Middle East

(4 credits)

The purpose of this course is to help students understand the historical, political and religious transformations that have occurred in the last century. Included are discussions of economic development and the political and social implications for Middle Eastern peoples. The Arab-Israeli conflict will receive special emphasis with the goal of helping students understand the complexity of the issues surrounding the current attempts to establish a lasting peace. The course includes an extended travel component based in Jerusalem in order to gain firsthand Israeli and Palestinian perspectives and ideas regarding resolution of the conflict. In Cairo, students enjoy on site briefings from experts at the World Bank, the Arab League, and the U.S. Embassy. [Possible credit: political science/history]

Peoples and Cultures of the Middle East

(4 credits)

Using a Socio-anthropological approach, this course seeks to acquaint the students with the enormous varieties of peoples and cultures found in the Middle East. Literature, music, dance, and food are integrated into the learning experience. The course examines the basic structure of historical and contemporary societies and cultures with special emphasis on those found in Egypt, Jordan, Syria, and Turkey. The MESP travels to these countries during two weeks of this course, learning about the various ethnic groups firsthand. Students study such groups as Bedouins, Kurds, Jordanians, Turks, Yoruks, Syriac Syrians, Armenians and more. Historical sites include Damascus, Aleppo, Antioch, Cappadocia and Istanbul. Social organization, law, family, tribe, gender, rural-urban migration, and social change are among the areas of inquiry in this course. [Possible credit: sociology/anthropology]

OXFORD SUMMER SCHOOL PROGRAM

Students at Council member colleges and universities are invited to apply for admission to the Oxford University Summer School Program, a multi-disciplinary study of the history and development of the Renaissance and Reformation through examination of the philosophy, art, literature, science, music, politics, and religion of this era. Students have the opportunity to study with the faculty of the Centre for Medieval and Renaissance Studies, which is affiliated with Oxford's Keble College.

See the Academic Records Office for courses offered.

RUSSIAN STUDIES PROGRAM

The RSP enables juniors and seniors to spend a semester living and learning in Russia. Students study the Russian language and attend seminar courses on Russian culture, literature, history, and current political and economic issues. Program participants experience a variety of Russian environments, living for 12 weeks in Nizhni Novgorod and visiting both Moscow and St. Petersburg. In addition to participating in a service project, after six weeks of language instruction, students will have the opportunity to live with Russian families for the remainder of their stay in Nizhni Novgorod.

Courses

Russian Language Study

(4 or 6 credits as chosen by students)

The initial requirement is familiarity with the Cyrillic alphabet upon arrival in Russia (through study materials provided in advance). For students with Russian language capability, small group instruction builds on their current knowledge. Students advanced in Russian are placed in a program which makes use of regular university lectures, written assignments and tutorials with their language instructors. Students learn and practice the use of both spoken and written language in real-life situations. Intensive teaching methods provide good results in a relatively short period of time. Students are thrilled to acquire a vocabulary of 800-1,200 words and a basic grammatical understanding within a few short weeks.

International Relations and Business

(2 credits)

This class, meeting for about ten sessions, explores issues related to the newly-arising world of business in Russia. Cultural differences, economic potential, ethics and government policy will be examined in the laboratory of Nizhni Novgorod, a city widely recognized as a leader in Russian economic reform.

History and Sociology of Religion (3 credits)
This seminar delves into the history of religion in Russia dating from the beginnings of Christianity in the 10th century to the present day, with emphases on Orthodoxy and Protestantism, including study of the persecution during the Soviet era and the flourishing of religious activity in post-Soviet years. The course also looks at current government regulations from various points of view. Included are visits to numerous churches and cathedrals in Moscow, St. Petersburg, and Nizhni Novgorod and guest lecturers giving Russian Orthodox, Protestant, and other religious perspectives. (Possible credit: biblical studies, comparative religion, history, sociology)

Russian Peoples, Culture, and Literature (4 credits)
Introduction to Russian history and culture using the rich resources of Moscow, St. Petersburg, and Nizhni Novgorod. Continued study of Russian people and culture throughout history using well-known works of Russian literature. Works by Pushkin, Tolstoy, Dostoyevsky, Gorky and Bulgakov are used. This seminar also includes visits to appropriate sites, including homes of literary figures, museums and historic cities and villages. (Possible credit: literature, history, sociology, cross-cultural studies.)

Russia in Transition (3 credits)
An in-depth look at Russia since 1991, as revolutions have encompassed political, economic, social and religious areas — a phenomenon unique in world history. A compendium of background and current journal, magazine, and newspaper articles is used, as well as knowledgeable guest lecturers and public policy representatives. Students are introduced to the complexities of transition from a centrally-planned economy to a free market system and establishment of democratic institutions. They discuss the changes and their impact on Russia's economy, political institutions, and the life of the Russian people. The seminar includes service projects in selected educational institutions, orphanages, business and other organizations in Nizhni Novgorod, as well as travel throughout western Russia. (Possible credit: political science, business, cross-cultural studies, sociology, history)

COUNCIL-AFFILIATED PROGRAMS:

AuSable Institute of Environmental Studies

Located in Michigan, this program offers courses which cover various aspects of environmental studies and stewardship. Ecological information is provided along with experience in both field and laboratory techniques. Scholarship assistance is available to students at Council member colleges.

The courses listed below are some of those offered at the AuSable Institute of Environmental Studies. See current AuSable bulletin for detailed course descriptions and special programs. A student may enroll in two courses per summer session for a total of eight hours of credit. A maximum of eight hours may be applied toward the major. Additional courses may be used for elective credit. Through a combination of courses taken at Houghton and AuSable, a student may earn certification from AuSable as one of the following: environmental analyst, land resources analyst, or naturalist. Certification requires a minimum of three approved courses to be taken in residence at the Institute. Specific requirements for particular certificates may be obtained from the biology department faculty.

BIOL 220 Environmental Science in Stewardship Perspective	4
BIOL 295 Natural History in Spring	4, May
BIOL 301 Land Resources	4
BIOL 302 Water Resources	4
BIOL 303 Natural Resources Practicum:	
Ethnobotany and Ecological Agriculture	4
BIOL 304 Natural Resources Practicum:	
Hazardous Waste Stewardship	4
BIOL 312 Insect Biology and Ecology	4
BIOL 322 Aquatic Biology	4
BIOL 342 Fish Biology and Ecology	4
BIOL 346 Winter Stream Ecology	4
BIOL 482 Restoration Ecology	4
CHEM 332 Environmental Chemistry	4

School of Medical Technology at Robert Packer Hospital

A cooperative program has been established with the School of Medical Technology at Robert Packer Hospital in which three years at Houghton plus a 12-month clinical program at the hospital leads to a BS degree in biology from Houghton College and eligibility to take the national certifying examination in medical technology. Houghton students enrolled in this affiliate program are considered full-time students at Houghton College and have the same status as students enrolled in programs on the main campus. More specific requirements of this program are listed under the Medical Technology section in this catalog. Additional information may be obtained from the medical technology program advisor, Dr. Matthew Pelletier.

International Business Institute

Houghton College is affiliated with the International Business Institute of King College in Bristol, TN. The 11-week summer program, normally taken following completion of the junior year, includes periods of residence in key locations as well as coordinated visits to major political, business, and economic centers of Western Europe and the former Soviet Union. Applicants should have completed at least one full year of economics, one semester of accounting, one course in marketing, and one in management. These courses are unique to IBI and are all taken as part of the program. This program meets the cross-cultural study requirement for international studies majors.

Course Descriptions

IBI-331 **Comparative Economic Systems** (3)

Economic systems, their underlying ideological foundations and institutional arrangements. Historical and political context of various systems are analyzed, along with central organizational features of each.

IBI-339 **International Marketing** (3)

Theory and practice of contemporary international marketing management: context or environment of international marketing, marketing in a variety of national domestic markets with distinct cultural settings.

IBI-350 **International Trade and Finance** (3)

Survey of analytical and institutional aspects of international trade and finance; includes current theoretical and empirical approaches to international economic and business relations.

IBI-390 **Topics in International Business** (3)

Covers major issues related to international business, including international aspects of organizational management and behavior.

Additional Off-Campus Opportunities

The college has affiliation agreements with Brethren College (PA), the Center for Cross-Cultural Studies (Seville, Spain), Central College (Pella, IA), Edu-Venture (Mexico and Fiji), the International Business Institute (Wheaton, IL), Laval University (Quebec), and the London Institute for Contemporary Christianity. These programs permit students to study in Europe, Russia, Asia, China, Latin America, and Africa. Services provided by the off-campus programs office assist students in program selection and preparation for departure with advice on visas, passports, immunizations, cultural adjustment, and re-entry. Financial aid may be affected or barred by participation in some study-abroad programs.

Consortium Visitor

Houghton has agreements with most of the other 12 colleges in the Christian College Consortium to allow single-semester visiting student status at another college. For information on the opportunities, requirements, and essential paperwork, come to the Academic Records Office.

Tabular Listing of Off-Campus Programs *(data is subject to change)*

	HC Catalog Courses	Grades on Trnscript	HC Fin Aid Awarded	Qualifies Mayterm
Houghton Programs				
First-Year Honors	Yes	Yes	Yes	Yes
Houghton in Adirondack Park	Yes	Yes	Yes	Yes
Houghton in Australia	Yes	Yes	Yes	Yes
Houghton in London	Yes	Yes	Yes	Yes
Houghton in Tanzania	Yes	Yes	Yes	Yes
Oregon Extension	Yes	Yes	No	No
Council for Christian Colleges & Universities				
ASP (Washington, DC)	Yes	Yes	No	No
China Studies	Yes	Yes	No	No
Contemporary Music Center	Yes	Yes	No	No
LAFS (Los Angeles)	Yes	Yes	No	No
LASP (Costa Rica)	Yes	Yes	No	No
MESP	Yes	Yes	No	No
Oxford Summer School	Yes	Yes	No	No
Russian Studies	Yes	Yes	No	No
Others*				
AuSable Institute of Environmental Studies (MI)	Yes	Yes	No	No
Brethren Colleges Abroad (PA)	No	Yes	No	No

Center for Cross-Cultural Studies (Seville)	No	Yes	No	No
Central College Abroad (IA)	No	Yes	No	No
Christian College Consortium Visitor	No	Yes	No	No
Daystar University - Kenya	No	No	No	No
Edu-Venture (Mexico and Fiji)	No	Yes	No	No
International Business Institute	Yes	Yes	No	No
Jerusalem University College	No	Yes	No	No
Laval Language Institute (QB)	No	Yes	No	No
London Institute for Contemporary Christianity	No	Yes	No	No
Medical Technology (Robert Packer Hospital)	Yes	Yes	No	No
Music in Europe (Guild Hall School of Music and Goethe Institute)	No	Yes	No	No
Trinity Christian (Seville, Spain)	No	Yes	No	No
WNY College Consortium	No	Yes	NA	No

*For information about programs not affiliated with Houghton College, please consult with the Off-Campus Programs or Academic Records Office.



Adult Learning Opportunities

P.A.C.E. – Adult Degree Completion Program **Program for Accelerating College Education - (B.S. in Management)**

Director: John Durbin

Houghton College offers an adult degree completion program leading to a bachelor of science degree in management at its West Seneca Campus, Olean, Arcade, Jamestown, Dansville and possibly other sites in the future. Known by the acronym P.A.C.E. (Program for Accelerating College Education), this program serves those who had interrupted their higher education for work, family, or other commitments and now wish to resume studies leading to a bachelor's degree. For the adult learner, the program combines convenient scheduling, contemporary technology, and high-quality conventional classroom instruction.

The adult degree completion program is intended to build on previous college credit and experience equivalent to three years of college. The degree, which can then be completed in about 16 months, has three major requirements:

- Transfer of a minimum of 64 semester hours from approved institutions to Houghton College.
- Completion of all non-core credit requirements as determined after initial transcript review (up to 24 hours of credit).
- Completion of an advanced-level, interdisciplinary core of 36 semester hours, comprised of 12, three-hour courses.

(Note: The combination of transfer credit and non-core credit must provide a minimum of 88 semester hours for completion of degree requirements. Students with fewer total hours may take additional courses at Houghton or elsewhere, or may pursue DANTES credits.)

Gen. Ed. minima: Certain minimum general-education requirements for the program must also be met as part of the non-core credit requirements. These general education requirements are:

	<i>minimum hours</i>
Religion and philosophy	6
Communication (written and spoken)	6
Humanities (foreign language, cross-cultural studies, history, literature, fine arts, and social science)	*18
Mathematics/computer science	3
Science	3
Total	36

**at least 6 hours in humanities and 3 in social sciences, but not more than 6 hours in any one discipline*

The adult-degree-completion program is conducted year-round. Each core course is taken over five weeks, meeting one evening per week, with four courses combining to make a 20-week term (different than the regular college semester).

For more information, write to P.A.C.E., Houghton College at West Seneca, 810 Union Road, West Seneca, NY 14224, or call (716) 674-6363 or (888) 874-PACE, or visit www.houghton.edu/pace.

Course Descriptions

TERM I

ADC 321 **Adult Development** (3)

Overview of adulthood in context of life span, including biological change, cognitive characteristics, personality, and moral reasoning. Also addresses issues of gender, interpersonal relations, ethnicity, aging, and impact of theory on organizational development.

ADC 322 **Specialized Writing** (3)

Emphasis on improving ability to communicate effectively through writing, identification of audience and purpose, clear reasoning and rational organization, suitable wording, and effective rewriting.

ADC 323 **Work-Team Dynamics** (3)

Focus on dynamic processes affecting task-oriented work groups, including formation, development, maturity, and effectiveness. Addresses goals, interactions, problem recognition, interventions and team meetings.

ADC 325 **Presentational Speaking** (3)

Performance course involving the preparation, delivery, and evaluation of presentations commonly required in an organizational setting, including both informative and persuasive presentations. Emphasis on the process of communication, audience analysis, message content and structure, and extemporaneous delivery. The goal is developing students' confidence and competence as public speakers.

TERM II

ADC 440 **Fundamentals of Management** (3)

Effective reasoning and decision making for organizational managers. Assessment and development of individual managerial competencies, involving leadership styles, ethical perspectives, problem solving, stating goals and objectives, strategic and tactical planning.

ADC 441 **Judeo-Christian Values in the Workplace** (3)

Biblical basis of Judeo-Christian ethics, social and cultural workplace myths, development of ethical awareness and accountability, and individual contributions to work-world ethics.

ADC 442 **Human Resources Management** (3)

Perspectives on traditional, current, and emerging practices in human resources management, including matters related to economics, law, psychology, sociology, and programs and policies used in employee management.

ADC 444 **Accounting and Finance for Non-financial Managers** (3)

Introduction to accounting and finance concepts, including cost control, understanding and analyses of financial statements, budgeting, working capital management, and financing alternatives.

TERM III

ADC 450 **Personal and Professional Ethics** (3)

Focuses on ethical theories and specific moral issues in the workplace, and includes small group analyses of selected cases and applicable principles.

ADC 451 **Quantitative Decision-Making** (3)

Statistics as a tool in solving real-world problems, including organizing data, using models for predictions, constructing simple graphics, use of logic and reasoning in drawing conclusions and making recommendations. Emphasis on process improvement and decision making.

ADC 453 **Diversity in the Workplace** (3)

Sociological approach to examining workplace diversity, stratification, stereotyping, and misunderstandings, including matters related to culture, gender, ethnicity, and race. Emphasis on contemporary issues and problem solving.

ADC 454 **Organizational Development** (3)

Development of theory and innovative practice relevant to leadership and organizational change. Major topics include change processes within organizations, intervention strategies in organizations to improve their effectiveness, studies of such interventions, the roles of change agents, and problems of self-awareness, responsibility, and the political consequences of organizational development theory and practice.

OPTIONS Courses

The Birth and Maturation of Western Culture (3)

Western Culture in the Age of Science (3)

This pair of courses comprises a connected narrative of western culture from ancient Greece to the 20th century. While highlighting key people, places, and events we will examine such issues as church and state, public versus private interest, human identity, and worldview construction. We will examine each period by weaving literature and philosophy into the fabric of history. Using these elements, we will examine the worldviews that characterized the past and equip participants to evaluate critically the worldview options available.

Biblical Literature (3)

Survey of the types of literature found in the Bible. Considers the origin of the Biblical texts and canon; basic issues of interpretation (hermeneutics); and an outline of the history of Israel and of the New Testament church as a backdrop for the message. Literary, historical, and theological aspects of selected texts will be explored.

Masterworks of Sight and Sound (3)

Introduction of art and music from classic age to present. Satisfies fine arts requirement.

Computer Applications & Issues (3)

Introduction to personal computer applications: spreadsheet and database software, and Web page creation and publishing. Student teams work on real business computing projects. Discussion of current issues in computing.

Marketing principles (3)

An overview of consumer behavior and strategies related to product development, pricing, promotion, and distribution of consumer and business products and services in domestic and international markets.

Introduction to Christianity (3)

An introductory survey of the main beliefs and practices that constitute the Christian tradition. Christianity will be approached in a way that overcomes the traditional division between doctrine and practice. The Biblical, theological, historical, ethical, and spiritually formative aspects of Christian faith will be explored. The course aims to enable the student to develop a personal theology and life perspective that is informed by Christian faith and Christian spirituality.

P.A.C.E. Financial Information

Costs for the current academic year (cohorts which begin May 1, 2004, to April 30, 2005):

Application fee	\$ 25
Enrollment deposit	\$ 100
Tuition per term (12 credit hours)	\$ 5,988
Tuition for program (36 credit hours)	\$ 17,964
* OPTIONS courses	\$0 or \$300
Experiential learning credits, per credit hour awarded	\$ 35
DANTES (per test)	\$ 45
DANTES (per credit hour awarded)	\$ 35

*A fully matriculated student in the core P.A.C.E. program may take four OPTIONS courses at no additional charge. They will accrue the "free" courses at a rate of one each during the first two terms, and two during the third term. Should they get ahead of this schedule, they will be liable for the cost of the courses should they not complete eligibility requirements.

Tuition for the P.A.C.E. program is billed in three installments, at the beginning of each P.A.C.E. term. Payment is due in full at the beginning of each term unless a monthly payment plan has been arranged in advance. Each P.A.C.E. student completes a payment plan form prior to entering the program.

Students who are eligible for employer reimbursement may be able to defer payment until tuition reimbursement is received.

Tuition covers the use of textbooks, supplemental readings, software, and the computer lab. The replacement cost of any unreturned or abused textbooks or materials will be charged to the student's account.

Students are required to have access to a computer with certain specifications for continuous use throughout the program. Contact the P.A.C.E. office for the required specifications.

Financial Aid for P.A.C.E. Program

Required Applications

Any student wishing to be considered for financial assistance must submit a current fiscal year Free Application for Federal Student Aid (FAFSA), a New York state TAP application, and a Houghton College financial aid application.

Federal Pell Grant

The Pell Grant is an entitlement to students who qualify under a federal formula which determines eligibility. The amount of the Pell Grant is determined by the Pell Grant formula #3 under the federal student aid regulations. The maximum award for the 2004-05 academic year is \$2,025 per term.

Federal Stafford Loan

Interest rate is variable, capped at 8.25 percent, based on the 91-day Treasury Bill rate plus 3.1 percent. If the student is not a previous borrower in repayment who has already used the six-month grace period, interest and principal repayment is delayed until six months after the program is completed.

Federal Unsubsidized Stafford Loan

A loan with the same borrowing limits and interest rate is available to students who do not meet the need qualifications for the Federal Stafford Loan. The student is responsible for making interest payments while in school. Principal repayment begins six months after the student ceases to be enrolled at least half time. The maximum combined borrowing limit is \$15,750.

New York State Tuition Assistance Program

New York State's Tuition Assistance Program (TAP) is a state-funded entitlement program for New York State residents. Grants are based on the New York net taxable income of the preceding year. The maximum award for the 2004-05 academic year is \$2,500 per term.

P.A.C.E. Refunds

A copy of the worksheet used for refund calculation can be requested from the Student Financial Services Office.

Houghton College Aid

Limited funds are available each academic year from an endowed scholarship fund established for the benefit of West Seneca Campus students. Recommendations for the awarding of these funds may be made by the P.A.C.E. administrative staff to the scholarship committee.

Policy for Return of Title IV Funds

Houghton College's refund policy is in accordance with the U.S. Department of Education's regulations. The policy applies to all P.A.C.E. students who do not complete the enrollment period for which he or she has been charged.

The term "Title IV Funds" refers to the Federal financial aid programs authorized under the Higher Education Act of 1965 (as amended) and includes the following programs: Federal Family Educational Loan Programs (Stafford; subsidized and unsubsidized) and Federal Pell Grants.

A student's withdrawal date is the date the student began the institution's withdrawal process or officially notified the institution of intent to withdraw or the student's last date of attendance.

Refunds will be prorated on a *per diem* basis based on the academic calendar. Students withdrawing before the academic period begins will receive a 100 percent refund of charges. A copy of the worksheet used for the refund calculation can be requested from the Student Financial Services Office.

Title IV aid and any institutional aid is earned in a prorated manner on a *per diem* basis based on the academic calendar. A copy of the worksheet used for the Title IV refund calculation can be requested from the Student Financial Services Office.

In accordance with federal regulations, when financial aid is involved, refunds are allocated in the following order: unsubsidized Stafford Loans, subsidized Stafford Loans, Federal Pell Grants, other federal sources of aid, other state, private and institutional aid, and finally the student.

The policy listed above supersedes that previously published and is subject to change at any time.

P.C.M.P. – Pastoral and Church Ministries Program (AAS)

Director: Jeffrey E. Carter

Department of Religion and Philosophy: J. Michael Walters, chair

The associate of applied science degree in Christian ministries may be earned through the Pastoral and Church Ministries Program. This is a program within the department of religion and philosophy that is offered in the urban context in Buffalo, New York. The following shows how the AAS degree requirements can be met with an educational ministries concentration.

The integrative studies requirements (21 hours) are:

- 3 hours of Bible PBIB 102 or PBIB 103
- 3 hours of Principles of Writing PENG 101
- 3 hours of math or science
- 6 hours of humanities, with at least 3 of philosophy
- 3 hours of social science PSSC 220
- 6 hours of theology PTHL 230 and PTHL 235

The required religion courses (26 hours) are:

- 6 hours of Bible: Old Testament PBIB 102, PBIB 222 and/or electives
- 6 hours of Bible: New Testament PBIB 103, PBIB 217 and/or electives
- 3 hours of missions PMIS 225
- 6 hours of educational ministries PEDM 223, PEDM 227
- 3 hours of preaching PMIN 222
- 2 hours of ministerial internship PMIN 270

General Information

The educational ministries concentration requirements (15 hours) are: PEDM 233, 235, 252, 254, and 258.

The integrative studies liberal arts courses (Principles of Writing, math or science, and humanities) may be taken through Houghton College, or transferred from another college or university.

A student may also earn the AAS Christian Ministries degree with a concentration in communication, religion, or applied social science by combining course work taken through the Pastoral and Church Ministries Program, Houghton College, and transfer credit from other institutions.

Additional information may be obtained by contacting the office of the director of the Pastoral and Church Ministries Program at 716.968.3962.

Course Descriptions

PBIB 102 Introduction to the Old Testament (3)

General overview of the Old Testament to gain an understanding of the historical, cultural, and spiritual conditions of the people of ancient Israel and its neighbors.

PBIB 103 Introduction to the New Testament (3)

Historical and theological exploration of the New Testament nature of the church as a faith community.

PBIB 217 Gospel Foundations of Evangelism (3)

Exploration of major theological themes in the Gospels. Models and strategies for evangelism and outreach for the modern church are identified from each Gospel.

PBIB 222 Biblical Interpretation in Today's World (3)

Emphasizes skills necessary for reading and interpreting the biblical text through exploration in both the Old and New Testaments.

PEDM 223 The City Church and Specialized Ministries (3)

Provides theoretical and practical experiences in dealing with issues such as AIDS, violence, criminal activity, the welfare system, mental health, and prisons. Special emphasis is given to the role of evangelism in this context.

PEDM 227 Church Planning and Administration (3)

Provides practical tools for planning church growth and outreach, leadership development, and fiscal planning. Special emphasis is given to "shared ministry" of clergy and lay persons.

PEDM 233 Christian Education in the Church (3)

An introduction to the ministry of Christian education in the church. Emphasis is given to the nature of spiritual development of individuals and the community of faith.

- PEDM 235 Foundations of Worship** (3)
The role and dynamics of music in shaping Christian disciples. Examines the use of music as a tool to reinforce learning principles in worship and classroom settings.
- PEDM 252 Theology of the City** (3)
An examination of God's presence and activity in ancient and contemporary urban settings. Consideration is given to understanding urban culture and relationships among diverse populations.
- PEDM 254 How to Teach and Study the Bible** (3)
An introduction to methods of Bible study. Materials explore biblical teaching methods, with emphases placed on lesson design, planning, and presentation.
- PEDM 258 Techniques of Teaching Youth and Adults** (3)
Learning styles and psychology of teaching youth and adults are examined. Special attention is placed on discipleship training for effective ministry among this population.
- PENG 101 Principles of Writing** (3)
Development of writing skills. Focus on narrative, descriptive, and expository essays. Principles taught by frequent writing, peer workshops, discussions, conferences. Extra tutorial contact required of those with difficulties with mechanics.
- PMATH 112 Mathematics Survey** (3)
A one-semester course designed for students who might or might not take additional college mathematics courses. The objective of this course is to reintroduce concepts in arithmetic and number theory, as well as to reinforce concepts in elementary algebra and basic geometry. Emphasis will be placed on practical use of mathematics. Topics will include arithmetic operations, linear equations, word problem solving and basic geometry.
- PMIN 222 Foundations of Preaching** (3)
Provides techniques and tools for biblical and prophetic preaching and scriptural research. Emphasis given to organization and structure in sermon, lecture, and speech preparation. Prerequisite: PBIB 102 Introduction to the Old Testament, PBIB 103 Introduction to the New Testament, or PBIB 222 Biblical Interpretation in Today's World.
- PMIN 270 Ministry Internship** (2)
Supervised experience in church and community ministries under the direction of a skilled professional. A planned, organized and directed process that immerses the student in the practical application of ministry principles and procedures, particularly in urban settings.
- PMIS 225 Spiritual and Prayer Foundations** (3)
Provides spiritual foundations of urban religious thought, with special emphasis given to the role of prayer in the Black church/community.
- PSSC 220 Pastoral Care and Counseling** (3)
Exploration of pastoral care in the urban community context. Emphasis is given to the specific counseling needs in the urban community setting. Provides practical skills in counseling and pastoral care, and draws upon the unique expressions of spirituality in the urban community to help the student minister effectively.
- PTHL 230 Introduction to Christian Doctrine** (3)
An introduction to the main tenets of the Christian faith. Emphasis is given to the biblical basis for developing a personal and group theology.
- PTHL 235 History of Christianity** (3)
Ancient, medieval, and modern development of Christianity in historical context, including doctrines, prominent lives, and institutions of each era.



Student Life

Co-curricular activities at Houghton provide students with many opportunities to develop leadership potential, engage in Christian service, and use leisure time in ways that are enjoyable, enriching, and complementary to academic responsibilities. Areas of involvement include organizations that focus on ministry and service; communications and media; music ensembles; clubs that emphasize vocational interests; intramural and intercollegiate athletic teams; and residence hall activities.

Residence Halls

Houghton College is a distinctively residential community. Most students, faculty, and staff live, learn, work, and worship within the tranquil setting of the village of Houghton. The residence life experience is a significant and integral aspect of the educational process. Residence life, together with classroom, chapel, co-curricular activities, and general campus interaction, provides an immediate setting for students to examine new or different perspectives, ideas, and attitudes. A successful residence hall experience is often closely related to a student's attitude and willingness to learn.

The responsibility of the staff in each residence hall is to help create an environment conducive to the educational, spiritual, social, physical, and emotional development of its resident students. Each hall's resident director (RD) oversees and coordinates student activities, conduct, and living conditions. The RD is assisted by a resident director's assistant who is usually a senior student. A resident assistant (RA) lives on each wing or floor and serves as a peer leader and guide for each living unit. An elected residence hall council provides additional programming.

While residence hall staff members strive to provide the best living environment possible for our students, continuing and maximum student growth depends ultimately on the individual's willingness to accept responsibility and participate in the residence hall community. Through the efforts of students and staff, the college's goal of integrating faith, learning, and living can become a reality in individual lives.

All students are required to live in a college residence. All first- and second-year students, as well as some juniors and seniors, live in our four traditional residence halls. Houghton also endeavors to provide more flexible options for upperclass students. Two of the residence halls feature special upperclass floors with additional visitation and cooking privileges. Juniors and seniors are also eligible to apply for one of three options: a townhouse--seven students sharing a four-bedroom townhouse with full kitchen facilities; a two-bedroom apartment in a college-owned complex, each apartment houses four students; or a Community Living Option (CLO) which permits a student to privately rent a room or apartment within the village of Houghton. CLOs are granted on a very limited basis, primarily to senior students, based upon projected enrollments. Additionally, some upperclass students reside in the residence hall or townhouses on our West Seneca Campus. Local or married students may elect to commute from home.

Health Services

The Student Health Service is a walk-in clinic located in the lower level of East Hall and accessed from the parking lot next to the Campus Center. It is staffed by registered nurses and is open Monday through Friday, 8 a.m. to 6 p.m., and Saturday, 9 a.m. until noon. The goal is to promote wellness and the treatment and prevention of illness in the college community.

Services include nursing assessment and treatment of illness and injury, health screening and risk appraisals, health education, resource materials, allergy injections, immunizations, laboratory services, and daily delivery service from the local pharmacy. Referrals are made to local physicians, area specialists, or emergency departments when indicated. The college provides three illness visits per student per year to Houghton physicians. Additional physician visits and visits due to accident or injury are billed through insurance.

Students can assess their own symptoms at the Self-Care Center and select over-the-counter unit-dose medications for short-term treatment.

Health insurance coverage is mandatory. Students without health insurance coverage will be enrolled in and billed for the illness/accident college plan. The college accident insurance is mandatory for all intercollegiate athletes and is an option for all other students. The student's personal or family insurance is primary; college plans are always secondary. Claim forms and assistance in filing claims are provided by health service personnel.

If a student has a medical condition (physical or psychological) that interferes with that student's ability to perform academically, or if that student's behavior/condition is such that other students are being hindered in their academic/living environment, a medical leave from the college may be granted. Such leave is granted by the dean of students. This is not a disciplinary action, and students given medical leave are encouraged to return to the college to continue their studies as soon as they are able to do so. An evaluation may be required to ascertain whether the behaviors/conditions that warranted the granting of the leave have been sufficiently addressed.

Immunization Policy

New York state's stringent Public Health Law requires all students to provide documented proof of immunization or immunity to measles, mumps, and rubella. TB testing and up-to-date tetanus/diphtheria immunization is also required. Hepatitis B and meningococcal immunization is recommended.

Student Government Association (SGA)

The SGA, under the leadership of its officers and through its various working committees, provides an opportunity for students to become directly involved in campus decision making. In addition, its members attempt to resolve campus problems and serve as a communication channel between student organizations and faculty, staff, and administration. The Student Government Association creates an atmosphere for the discussion of campus issues and programs that contribute to the growth of each member of the student body.

The Campus Activities Board, a division of SGA, is responsible for providing on-campus entertainment.

Student Class Activity

Classes begin each year with a class retreat and form class choirs for CLEW. Tuesday evenings are reserved for class prayer meetings. Elected class officers, assisted by the faculty advisor, organize and lead activities throughout the year.

FYI

The FYI program (First-Year Introduction) is a follow-up activity to New Student Welcome Weekends. FYI is a mandatory course for all first-year students (see CLLS 101). In the large-group seminar component, various faculty and administrators present information on the Christian liberal arts education experience at Houghton College. The weekly small group follow-up helps first-year students to process the information and to address bridging the gap from high-school learning to the rigors of college academics. The small group setting also provides a support group where peers help one another adjust to college life. FYI meets two times a week for the first nine weeks of school. Thirty-three student peer leaders are selected and trained to facilitate the small group process. These students work with 16 faculty and staff mentors.

Religious Services and Organizations

Chapel meets Mondays, Wednesdays, and Fridays from 11:00-11:40 a.m. unless otherwise noted. The operating premise for chapel is to provide a biblically-based service of worship in which students are encouraged to become more like Christ in attitude, character, motivation, and perspective on life. Those participating in chapel include faculty, students, off-campus speakers, worship teams and college choirs/ensembles. Chapel includes worship through music and song,

biblical exposition, personal testimony, missions, church, and college heritage. Chapel is required as a commitment made by each student to enhance the building of "community."

Regular **church attendance** and participation in a local congregation is strongly encouraged.

Christian Life Emphasis Week (CLEW) is a cooperative program of spiritual enrichment offered by Houghton College and the Houghton Wesleyan Church. At the beginning of each semester, CLEW services are held during the evenings as well as during the regularly scheduled chapel services.

Sunday evening **Koinonia** is a service of worship and prayer held at the Houghton Wesleyan Church. Student worship bands lead this ministry under the direction of the Houghton church's assistant pastor and the college's ministry team coordinator.

Class prayer meetings are conducted each week and are coordinated by the class chaplains and SGA chaplain.

Outreach Ministries include the Allegany County Outreach (ACO), Mime Team (Impressions), Evangelicals for Social Action (ESA), World Mission Fellowship (WMF), Habitat for Humanity, Youth for Christ, and Jesters for Jesus. These student-run organizations are designed to provide students with opportunities to apply their faith through service to the church and community.

Music and worship ministry teams (Heirborne, Godspeed, and String Quartet) and a camp counseling team (Dayspring) are sponsored through the Office of Christian Life. These student groups provide outreach to area churches and camps through music, testimony, counsel, and drama.

NAIA

Houghton College is a member of the National Association of Intercollegiate Athletics (NAIA), and it adheres to the NAIA rules for student athletes and for all who work with the teams, such as managers and trainers. The constant, non-negotiable floor is a 2.0 GPA and continuing enrollment in at least 12 credits, with other stipulations concerning previous semesters. Consult the NAIA faculty representative for further information.

Student Automobiles

Any student who operates a motor vehicle on campus (even if he or she is not the owner) must register the vehicle at the Office of Safety and Security. The vehicle's state registration and a student ID card are required. A statement of parking policies is given to anyone who registers a vehicle.

Artist Series

The Houghton College Artist Series features nationally and internationally known artists, groups and productions which vary from year to year.

Music Opportunities*

**Most groups rehearse three hours weekly. See the music course description for credit given to members of these groups.*

College Choir

College Choir is composed of students chosen for musical and vocal competence by audition. Concerts are given each year, including an extended tour during spring break. Rehearses daily.

Chapel Choir

The Chapel Choir sings for the chapel program, in regular concerts, and in conjunction with College Choir as Houghton Choral Union. The music performed is representative of several centuries from high Renaissance to the present. Membership is by audition and permission of the director.

Chamber Singers

The Chamber Singers perform secular and sacred compositions of all periods. Membership is by audition and permission of the director.

Opera Workshop

The Opera Workshop presents repertoire from opera, operetta, and musical comedy, both in scene recitals and in complete productions. Opera Workshop performs both on- and off-campus in the spring semester. Admission is by audition and permission of the director.

Women's Choir

Women's Choir presents programs of both sacred and secular music from all periods of musical history. The choir sings regularly in chapel and in concert. Membership is by permission of the director.

Men's Choir

Men's Choir presents programs of both sacred and secular music from all periods of musical history. The choir sings regularly in chapel and in concert. Membership is by permission of the director.

Handbell Choir

The Handbell Choir performs sacred and secular literature from various periods, using standard and innovative ringing techniques. Open to both elementary and advanced ringers, by permission of the director.

Philharmonia

The Philharmonia is made up of qualified instrumentalists. Representative selections of classical, romantic, and modern literature are performed. Membership is by audition and permission of the conductor.

Houghton Jazz Workshop

The Houghton College Jazz Workshop is designed to give experience in this American art form. Performances are given each semester at Campus Center functions and in association with other ensembles. Membership is by permission of the conductor.

Symphonic Winds

Symphonic Winds provides students the opportunity to perform significant symphonic band literature. Concerts are performed on and off campus. Membership is open to advanced-level wind and percussion players, and is by audition and permission of the conductor.

Heirborne

Six students, selected by audition, comprise this college outreach team. Throughout the school year they travel to churches within a 150-mile radius to present concerts of sacred music.

Communication Organizations

Boulder

The Boulder is the college yearbook, designed and produced by students who are interested in documenting and portraying life at Houghton College.

Star

The Houghton Star, the student newspaper, provides an opportunity for the expression of students' ideas via editorials, creative essays, campus and national news coverage, photography, and poetry.

Lanthorn

The Lanthorn is a student literary magazine, published annually, with a variety of examples of student creativity in writing and photography.

WJSL-FM

WJSL is a low-power radio station that reaches Houghton and the surrounding community. It is run by Houghton College students and managed by an elected student management team.

Clubs and Organizations

Clubs and organizations representing the various interests of the students meet on a monthly or biweekly basis.

Business League - The purpose of the club shall be to stimulate interest in the fields of business and accounting. The club will also endeavor to make students aware of the vast opportunities by providing a forum for discussing ethical issues in the fields of business and accounting from a Christian perspective. The club will sponsor campus visits by professionals who work in these fields, and assist students in exploring job opportunities.

Allegany County Outreach - A ministry to children through students of Houghton College. The purpose is to befriend children of Allegany County and be positive role models to them, pointing them to Christ.

Baseball Club - The purpose is to help develop interpersonal and personal growth by allowing male students to be involved in a ministry field by playing competitive baseball while providing Christian testimonies to other college baseball teams.

Campus Activities Board- CAB's purpose is to provide quality activities and entertainment for the campus with Christ-like morals and ethics.

Cheerleaders - The Houghton College Cheerleaders desire to establish the squad not only as a club sport, but also as a ministry of encouragement for the intercollegiate men's and women's athletic teams and the community.

Climbing Club - This club provides a safe, Christ-oriented atmosphere where climbing, leadership, encouragement, and hard skills are developed and promoted both in the gym and off-campus trips.

College Republicans - The main purpose of the club is to educate and inform the voters of Houghton College and the surrounding community and to enable politics in a Christ-honoring way.

Intercultural Student Association - ICS promotes cultural awareness on campus, and aids in the cultural adjustment of international students, third-culture kids, and American-born minorities.

Equestrian Society - To create a Christian environment in which equestrian students work together to increase public awareness of their program and its services; to enhance opportunities for students and community members.

Evangelicals for Social Action - To raise awareness about social justice issues around the world to Houghton College campus and to provide opportunities for people to make a difference.

French Club - To provide opportunities and events that will expose participants to the French language and Francophone culture.

Gadfly Society - Aims to provide a forum for voluntary co-curricular endeavors of interest to philosophy majors, minors and other philosophically-minded persons, and to promote awareness of the relevance of philosophical perspectives to issues.

Habitat for Humanity - Members work with those needing adequate housing by participating with affiliate chapters in or near Houghton and through work camps to build homes in North America or overseas.

Helping Houghton Seniors (H2S) - The purpose is to bridge the gap between Houghton students and the Houghton elderly by building relationships and serving.

Impressions (Mime Team) - The purpose of the mime team is to serve as ministers of the gospel through the expression of mime, and reach out to the community to encourage the community to encourage and edify the church and share the gospel with the unsaved.

Jesters for Jesus (Clowns) - The purpose is to minister God's word to local churches using the gift of humor and laughter; to teach the life-changing message of Jesus Christ simply, so all can understand and believe.

Men's Lacrosse Club - To develop lacrosse skills and knowledge of the sport on Houghton's campus and to give men the opportunity to participate in lacrosse.

Music Education Club - To provide music majors with expertise that may be helpful in their development as future educators.

Onething - In submission to the Holy Spirit and the Word of God, Hungry seeks to encourage people to passionately pursue God both corporately and individually.

Paddle Sports - To provide recreational opportunities for students that will enhance their college experience.

Physical Education Club - This club reinforces the preparation and enhances the education and future professionalism of its members, and enhances the education of the student body of through physical education, recreation, and athletics.

Psychology Club - To encourage students to integrate psychology and the Christian faith, provide learning experiences that will be educationally illuminating, and help prepare students for a future in psychology.

Salvation Army Fellowship - The Salvation Army Fellowship seeks to encourage spiritual growth and commitment to Christian service.

Shakespeare Players - To present Shakespeare plays in a way that is entertaining and applicable to modern audiences while remaining loyal to the original presentations.

Society for Human Resource Management-Houghton College Chapter - The purposes of the chapter are: a) to provide students with the opportunity to gain knowledge and insight into the effective management of personnel in the field of Human Resource Management through affiliation with the Niagara Frontier Chapter of SHRM and the National SHRM organization, b) to acquaint students, considering a future in business, with the field of human resource management and/or labor relations, c) to keep students up-to-date on new developments in the field of human resource management, d) to provide learning opportunities through interaction with human resource practitioners, e) to promote the development of truly professional human resource managers for the future, f) to encourage adherence to the Code of Ethics of the Society for Human Resource Management.

Spanish Club (El Club Espanol) - This club's purpose is to provide a group in which interested

people can practice their Spanish, engage in activities emphasizing the Spanish language, and learn about cultures and traditions of Spanish-speaking countries.

Swim Club - This club exists to gather swimmers together for Christian fellowship, to develop discipline, a team mentality, and communication skills.

Theological Society - A forum to develop discussion of topics related to Christian belief and practice, and to encourage students to think more deeply about the significance of the Christian conception of reality for their vocation or ministry.

Voices of Soulful Praise (Gospel Choir) - The purpose of this club is to glorify God in song and to share the gospel and African music with students and faculty.

Volleyball Club - "As iron sharpens iron, so too does one man sharpen another." (Proverbs 27:17) The purpose is to provide an avenue for fellowship and holistic development for male students by playing competitive volleyball while ministering to other collegiate volleyball teams.

World Missions Fellowship - WMFs purpose is to bring the community and campus to a greater understanding of, and commitment to, their place in God's mission for this world.

Young Life - A completely relational ministry proclaiming the Gospel to junior and senior high school students.

Youth for Christ - YFC's purpose is to communicate the life-changing message of Christ to every young person in Allegany County.

Summer Outreach Groups

Dayspring

This team is made up of six members and serves in various youth camps for eight weeks each summer. Membership is determined through an application and interview process.

Godspeed

This band and vocal group consists of six students who travel during the summer and academic year leading worship at youth camps and other activities. Students are selected by audition.

Eligibility for Co-curricular Activities

Eligibility to participate in major co-curricular activities, such as organizational offices, intercollegiate sports, or performing groups, is determined by the student's previous scholastic record and the amount of time required for the activity. In most cases, a GPA of at least 2.0 is required. (See the Student Guide for detailed information.)

Eligibility lists for participation in athletics are reviewed at the end of each semester.

Career Services

Career Services has a twofold purpose: 1. to promote the value of a liberal arts education as it relates to employment, and 2. to contribute to the teaching mission of the college by "preparing students to enter their chosen vocations directly or through further professional or graduate studies." In fulfilling these purposes Career Services seeks to provide the following:

Career Counseling

The knowledge of one's personal values, goals, skills, interests, and personality is fundamental to any wise career choice. Whether selecting courses for a semester, choosing a major, or deciding on a career path, self-awareness is critical. Through a variety of testing instruments and interviews, students are encouraged to expand their vision of career by considering their relationship with God, family, Christian-community, and society at large. Practice in making decisions is emphasized.

Career Guidance

An understanding of the world of work is essential for finding a place where an individual's knowledge and gifts can be used. Career Services provides resource materials of career information, internships, and summer opportunities, plus information regarding graduate and professional schools. Externship: Preparing Liberal Arts Students for Careers is a two-credit Mayterm course that provides a career shadowing opportunity with business and professional employers. In addition, the Career Services homepage provides links to career planning sites on the Internet.

Job Search Resources

Career Services subscribes to a variety of directories and employment newsletters to assist students in locating employment. Referral networks, placement newsletters, and cooperative efforts with the Alumni Office regarding resume referrals are some of the ways students registered with the Career Services are informed of employment possibilities. The Career Services homepage is another tool students use to locate employment opportunities. Houghton College has partnered with

eRecruiting.com to provide our students and prospective employers with an electronic meeting place. Additionally, Houghton is a part of the *Monstertrak.com* job search network.

Job Search Preparation

Learning how to write resumes, application letters, and graduate school essays, along with preparing for interviews are two aspects of the job-seeking process that require expertise and practice. Career Services provides workshops and skills training in these areas.

Consultation and Networks

The Career Services director serves as a resource person to faculty for classroom presentations and academic advising. Additionally, the director is an active member of the Niagara Frontier College Placement Association, a professional group of career counselors in western New York, that sponsors career fairs for their students and alumni.

Counseling Services

The Counseling Center provides personal counseling to all students desiring these services. Counseling is a growth process that can be beneficial to most students at some time during their college experience. Students have come to counseling for many different concerns and issues. Some typical comments that students have made in presenting issues for discussion with a counselor are:

"...I don't seem able to make friends easily."

"...I'm depressed an awful lot. Just can't seem to get anything done."

"...My parents are divorced and always fighting. I don't know how to handle that."

"...We think we love each other. How can we know it will be a good marriage?"

"...I'm trying to be more independent, but that's causing problems."

"...Since we've broken up I can't seem to get back into anything. I can't get on the top of this."

"...I'm bothered by my attitude toward food and my eating habits...do I have an eating disorder?"

"...I'm having some doubts about my Christian faith."

"...I don't have a close relationship with my parents like so many of my friends do."

Perhaps you have said similar things but haven't thought of stopping by to discuss them with a counselor. One or two conversations may enable you to face these issues more effectively.

At times events from the past or other difficulties can present us with emotional conflicts that require more extensive counseling. Such situations are often characterized by a student who is "getting by" but is suffering considerable emotional pain or confusion. The staff of the Counseling Center is also interested in helping you with these concerns. In addition to your counseling needs, the center also has a consulting psychiatrist on staff. On campus one day each month, this individual provides psychiatric evaluation, medication, follow-up, and consultation services.

Finally, the Counseling Center provides group experiences for issues such as eating disorders, recovery from abuse, divorce in the family, and grief through death or loss. These groups will be offered on the basis of need or popular request.

The center has professionally-trained counselors to help you with any of the above concerns. They can be reached by calling the Counseling Center at extension 6220 or 567.9622. Appointments can be made to meet with a counselor by visiting the Center located on the first floor of the Campus Center. All counseling information is confidential and will not be used without your consent.





Campus Information

BUILDINGS AND FACILITIES

John and Charles Wesley Chapel - This 1,200-seat auditorium serves as the worship center and public meeting place for students and faculty. Classrooms, practice rooms, Presser Recital Hall, Marjorie Paine Memorial Prayer Room. Special features: 47-stop Holtkamp organ designed and built for this auditorium; 3,153 pipes in 61 ranks; and the Ortlip mural "Redemption" in the foyer.

Luckey Memorial Building - Built with native stone and completed in 1942, this building stands at the head of the campus quadrangle and faces the historic Genesee River. It houses college offices for the president, the academic dean and the dean of academic administration, academic records, finance, human resources, student financial services, payroll, and administrative services.

Fancher Hall - A community landmark built in 1905, this facility was restored and renovated in 1978-79 and was moved to the site of the former Gaoyadeo dormitory in 1987. It houses the offices of admission, alumni, advancement and public relations.

Willard J. Houghton Library - Originally constructed in 1964 and renovated in 2000, the library contains resources of approximately 225,000 volumes, 400 journal subscriptions, and 12 newspaper subscriptions of both local and global interest. The main library building houses special collections of children's literature and Wesleyana; two separate branches of the library also exist in the Center for the Arts (music scores and sound recordings) and at the West Seneca Campus (Ada M. Kidder Library). The library's online catalog, as well as Web-based periodical-literature databases like ProQuest, Omnifile, FirstSearch, EBSCOhost, and BioOne are accessible at any computer connected to the college network. Subscriptions to these online journal services offer several thousand journals in electronic full text; many subscriptions are maintained through membership in various regional library consortia. Interlibrary loan services are provided through OCLC (an international cooperative system) at minimal charge to students and faculty.

Campus Center - A 75,000-square-foot building, occupied in 1972, with three floors. Main floor: campus store, Community Bank, NA branch, offices for student life, career and counseling services, safety and security, college information, plus a large lounge. Second floor: kitchen and private dining rooms. Basement: campus mailroom, student government, Big Al's snack shop with college network connections at each booth, student publications and outreach offices, recreation room for ping-pong and pool tables, television and music listening facilities, television production studio, and student coffee house.

Academic Building Offices and Classrooms - Completed in September 1989, this 49,000-square-foot, four-story building houses seven academic departments. It includes classrooms, learning resource facilities, student work/study rooms, laboratories, an interactive TV link with the West Seneca Campus, and faculty offices. A beautiful atrium divides the classroom and office wings.

Paine Center for Science - This 65,000-square-foot building built in 1969 houses a computer room, faculty offices, classrooms, animal laboratory rooms, instruction and research laboratories. The Margaret Bush Greenhouse, completed in 1999, adjoins the building.

Center for the Arts - A 44,000-square-foot facility constructed in 1999 that houses faculty offices, classrooms, studios, practice rooms, recital hall, art gallery, board room, music library, rehearsal hall, recording studio and laboratory facilities for keyboard and computers. The Center is connected via an indoor walkway to the John and Charles Wesley Chapel.

Stevens Art Studios - Constructed in 1986, the building includes faculty offices, printmaking studio with lithography and photo silk screening, and studios for painting, photography, sculpture, ceramics, drawing, and graphic design.

Computing Facilities - The college has a 24-hour general use PC computer lab, various department specific PC computer labs, and multi-purpose wired classrooms dedicated to academic and student use. There are also two Macintosh labs for department specific applications. The college continuously updates its computing services and offers network access for each bed in college-owned dormitories and townhouses. The network is available locally via dial-in from non-college owned residences using 56k modems.

The fall of 2004 represents the eighth year in which each first-year student receives a laptop computer, and the fifth year which they receive a printer. Students will use this equipment for their four years at Houghton and own by them upon graduation.

Athletic Facilities:

Nielsen Physical Education Center - Occupied in December 1980. Three basketball courts, running track, auxiliary gymnasium, four racquetball courts, faculty offices, classrooms, seminar rooms; the George R. Wells Natatorium offers a full-sized (25-meter) swimming pool with three diving boards (one a three-meter board). Parking for 250 vehicles.

Outdoor Recreation - Three soccer fields, a field hockey field, a 1,300-seat grandstand, six tennis courts, two ski slopes, lodge, cross-country routes, and full ski equipment for rent.

Equestrian Center - Site of the equestrian program, including accommodations for boarding student-owned horses. Five-week summer horse camp conducted each year in July and August. Opportunities for student employment, private lessons, and participation in intramural riding shows. In 1991, a 40' x 70' extension was added to the indoor riding ring. It includes a classroom, restroom, kitchenette, six stalls, and an area for hay storage. A second 36' x 24' indoor riding arena was completed in 1994, with stalls for 15 horses.

Student Housing:

Lambein Residence Hall - A modern, six-story facility with lounge and study rooms for 154 female students.

South Residence Hall - Four-story men's dormitory with lounges on each floor, seminar room, individual study rooms for 140 students.

East, Gillette, and Rothenbuhler Residence Hall - A three-section, four-story dormitory with lounge, recreation facilities, and a prayer chapel accommodating 335 women.

Shenawana Residence Hall - A two-story men's dormitory with several lounges and a recreation room housing 120 students.

Townhouses - The college owns and operates 29 townhouse units, providing housing for approximately 200 juniors and seniors. The Randall and Leonard Houghton Townhouses (six and seven units, respectively) were constructed in 1994. The seven-unit Hazlett townhouse was completed in 1999. The nine-unit Perkins Townhouses were completed in 2001. All units include kitchen, living room, two baths, and three to four bedrooms. Free laundry facilities are available in common areas.

College Flats - The college constructed an apartment complex totaling 36 units in 2002. Thirty-three units are two-bedroom (up to four persons) and three are one bedroom (two-person) units. Each unit includes bedroom(s), a full bath, kitchen, and living area. The overall complex includes free laundry facilities and a common lounge.

Other Facilities:

Health Center - Located in the southwest (Gillette) wing of East Hall and contains a modern treatment-laboratory room, exam rooms, reception area, and conference room.

Robert T. Fiegl Maintenance Center - 12,860 square feet. Shops for maintenance and repair crews; warehouse for materials and supplies.

Spring Lake Preserve - The Spring Lake wildlife preserve, approximately eight miles from campus, is leased and operated by Houghton College in partnership with the Nature Conservancy. The 91-acre reserve contains old-growth forest stands, wetlands, and second-growth beech-maple forest, and it fronts on an undeveloped glacial kettle lake. The preserve serves as a field site for environmental research and study.

Adirondack Park Campus - Houghton's Adirondack Park Campus, purchased in 2001, is a 40-acre wooded site located on Star Lake in New York state's famed Adirondack Park. The campus includes a main lodge with dining and sleeping facilities, classroom and meeting-room facilities, and a number of cabins, plus waterfront and beach. Activities in the area include wilderness hiking, rock-climbing, canoeing, and cross-country skiing. The college has developed an on-site academic program in Environment and Culture for both Houghton and non-Houghton students. The facilities are also available to outside groups on a limited basis.



HOUGHTON COLLEGE AT WEST SENECA

810 Union Road, West Seneca, NY 14224
716.674.6363 or 888.874.PACE (7223)

General Information

Since 1969, when Buffalo Bible Institute merged with Houghton College, Houghton College at West Seneca has offered a unique range of opportunities to students. Because of its proximity to urban Buffalo, HCWS is particularly suited to the needs of upper-division students who are interested in field experience. Within the greater Buffalo area, opportunities abound for internships, student teaching, and other professional experiences which are unavailable at the rural main campus. In addition, students have unique opportunities for ministry, which a city affords.

Houghton College at West Seneca also offers a program developed to provide opportunities for adult learners to complete degree requirements as commuter students. Known as P.A.C.E., or the Program for Accelerating College Education, this program enrolls a new cohort of 15-20 students seven times a year.

The West Seneca campus is the host of adult programs and facilities designed to reach community and professional audiences throughout Western New York. The Educational Conference Center at West Seneca provides professional meeting rooms, overnight accommodations, and a serene landscape to create the perfect environment for retreats and conferences.

Academic Standing

Houghton College is fully accredited by the Board of Regents of the State of New York and by the Middle States Association of Colleges and Schools. All courses taught by Houghton College faculty are approved and registered by the New York State Education Department.

Location

Houghton College at West Seneca is located at 810 Union Road, West Seneca, NY 14224. Besides the college buildings, the campus includes 40 acres of open woodland and is readily accessible to a metro bus transfer center and numerous shops and restaurants.

BUILDINGS

Lambein Learning Center

Named for West Seneca businessman and benefactor Carl Lambein, the center contains offices, classrooms, a classroom/auditorium in the round which also serves as a telecommunications center, and a library of over 35,000 volumes with linkage to the OCLC computer network and the DIALOG Information Retrieval System.

Cazenovia Hall

Cazenovia provides housing and a student lounge for 35 students, while the lower level houses the offices of Christian Counseling Services of Greater Buffalo and the Frontier Baptist Association.

Ebenezer Hall

This structure contains administrative offices and the student mailroom.

Lyon Memorial Hall

This facility serves as a meeting and activity hall for various campus groups. It was named after the late Dr. Herbert Lyon, a founder of the Buffalo Bible Institute.

Town Houses

The five units provide housing for up to 40 students. Each four-bedroom unit has a furnished living room and a kitchen equipped with washer, dryer, stove, microwave oven, and refrigerator.

Faculty/Staff Housing

One house and four apartments are available on campus for faculty or staff use.

REGULATIONS

Regulations regarding student life and activities are published in the Houghton College Student Guide. Information specific to the West Seneca Campus is given to students upon arrival. Please refer to the academic information section of this catalog for information concerning academic requirements.

ADULT DEGREE PROGRAM (P.A.C.E.)

Houghton College offers the Program for Accelerating College Education, an adult degree completion program leading to a bachelor of science degree in management, at the West Seneca Campus. This program is designed to serve those whose educational pursuits were interrupted by job, family, military, or other commitments and who now wish to resume baccalaureate studies. The program addresses the special needs of the working adult learner. More extensive program details are to be found in the Adult Learning Opportunities section of this catalog.

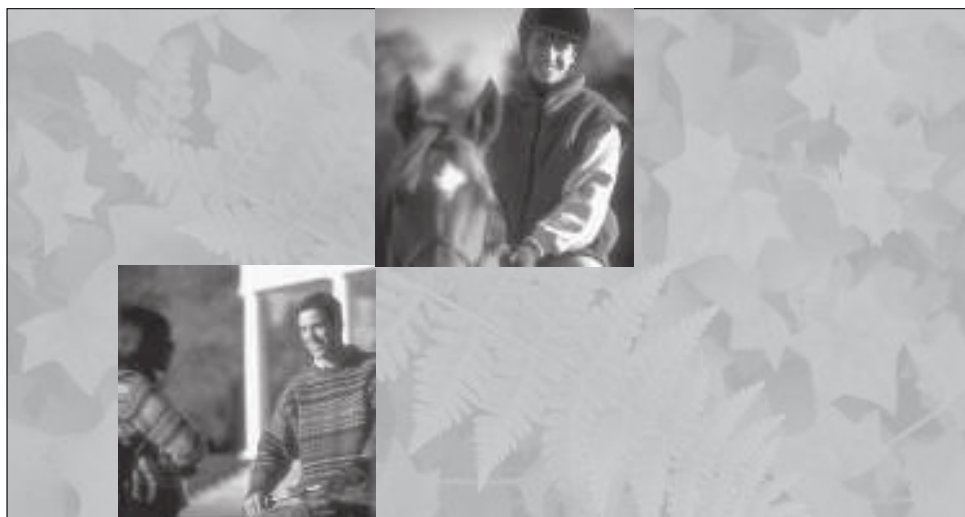
ADMISSION

The main campus and the West Seneca Campus use the same admission criteria (modified to accommodate adult-degree students). Requests for admission forms may be addressed to Houghton College at West Seneca, 810 Union Road, West Seneca, NY 14224, or call 716.674.6363 or 888.874.PACE, or visit www.houghton.edu/pace.

EXPENSES

For information regarding tuition and other expenses at the West Seneca Campus, see the earlier section on current year financial information.

For more information, write to Houghton College at West Seneca, 810 Union Road, West Seneca, NY 14224, or call 716.674.6363 or 888.874.PACE, or visit www.houghton.edu/pace.



Trustees, Officers, Faculty

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Timothy R. Fuller, MBA	Vice President for Enrollment Management
Wayne MacBeth, MA	Vice President for Student Life
Ronald J. Oakerson, PhD	Academic Vice President and Dean of the College
Jeffrey B. Spear, MS	Vice President for Finance and Treasurer

ADMINISTRATIVE STAFF

Mark S. Alessi	Administrative Systems Manager
James Arthur	Director of Alumni Relations
Margery L. Avery	Director of Academic Records
Jeffrey S. Babbitt	Assistant Director of Admission
Barbara L. Bates	Director of Prospect Research
Wendy R. Baxter	Counselor
Terry Borrowman	Campus Manager, Adirondack Park Campus
Cindy S. Bradfield	Human Resources Administrator
David Brubaker	Director of Student Health Services; College Physician
Katherine A. Buvoltz	Twin Tiers Coordinator P.A.C.E.
Bruce G. Campbell	Director of Admission
Rebecca Crouch	Assistant Director of Conferences
John P. Durbin	P.A.C.E. Director
Eileen Frawley	Academic Counselor, Upward Bound
Phyllis E. Gaerte	Director, Campus Store
Diane M. Galloway	Assistant Director of Admission
Ken Griffin	Major Gifts Officer
Robin L. Ha	Director of Houghton Fund
Noel B. Habashy	Admission Counselor
Carolyn Hale	Assistant Director of Gift Activity
Kimberly A. Hall	Student Accounts Counselor
Carol Harris	Student Financial Services Advisor, P.A.C.E.
Sharon Hibbard	Upward Bound Program Director
James Hutter	Associate Director of Academic Records
Steven D. Johnson	Webmaster
Charity Kleitz	Ass't Women's Basketball Coach; Athletic Administration
Todd Kleitz	Director of Intramurals, Ass't Men's Basketball Coach
Russell P. Knight	Campus Visit Coordinator
Cynthia B. Lastoria	Assistant to the President
Dorsey Lawson	Director of Facilities
Sarah Lingenfelter	Media Relations Coordinator
Jay R. Livingston	Senior Network Administrator
Marianne Loper	Financial Aid Counselor
Harold W. Lord	Assoc. Vice Pres. For Conf. & Dir. of Athletics
David J. McMillan	P.A.C.E. Assistant Director
Anton Machleder	Director of Recording Technology
Troy R. Martin	Director Student Financial Services

Timothy Mayhle	Senior Admission Counselor
David M. Mercer	Controller
Paul Mills	Major Gift Officer
Daniel C. Moore	Instructional Support Coordinator
Jason Mucher	Director of Athletic Communications
Nancy L. Murphy	Director of First-Year Programs; Counselor
Ray M. Parlett	Director, Campus Safety & Security
Mark A. Pavone	P.A.C.E. Academic Advisor
Stephen M. Peck	Director of Administrative Services
Beth A. Pocock	Assistant Director of Student Financial Services
Trini G. Rangel	Assistant Coach-Track and Field
Patricia A. Regan	Major Gifts Officer
Matthew Reitnour	Admission Counselor
Douglas Roorbach	Director of Public Relations
Michelle L. Russell	Resident Director, East Hall
Catherine G. Seebald	Director, Advancement Services
Deborah Shea	Campus Visit Special Events Coordinator
Robert B. Smalley	Cross Country/Track Coach; Instructor
Gail R. Smith	Senior Nurse
Patricia T. Smith	Director of Technology Services
Valerie C. Smith	Assistant Director of Public Relations, Publications Manager
Dennis Stack	Associate Director of Housing & Calendar Coordinator
G. Ange Szymanski	Assistant Director of Facilities
Seth Taylor	Network Administrator
Anne Valkema	Major Gift Officer
Matthew Webb	Head Men's Soccer Coach, Assistant Athletic Director
Scott Wight	Wilderness Adventure
John W. Woodard	P.C. Support Administrator
Dale F. Wright	Executive Director of Human Resources and Budget

FACULTY

The date following the name indicates year of appointment to the Houghton faculty.

Melanie Agnew (2003-part-time)

Instructor of Computer Science

BS, Houghton College, 1999

A. Cameron Airhart (1987)

*Professor of History; Director of London Programs; Chair, Department of History/
Political Science*

BA, Northwest Nazarene College, 1976; MA, PhD, University of California (Santa Barbara), 1979, 1985

Eric C. Alcott (1999)

Vice President for Advancement

BS, Valparaiso University, 1978; EdM, University at Buffalo, 1996

Stephen B. Alderman (2002)

Assistant Professor of Accounting

BA, Houghton College, 1991; JD, MBA, University of Denver, 1994

Jonathan E. Arensen (1995-96 part-time; 1998)

Professor of Anthropology

BA, Westmont College, 1968; MA, Central Washington State University, 1976; MS, PhD, Oxford University, 1986, 1991

Heather M. Armstrong (2003)

Assistant Professor of Theory and Oboe

BMus, Houghton College, 1999; MMus, Eastman School of Music, 2001

Glen Avery (1987-93; 1998)

Director of Instructional Technology

BA, Houghton College, 1976; MBA, Plymouth State College, 1980; MLS, EDM, University at Buffalo, 1993, 2001

Denise Bakerink (2000)

Director of Residence Life

BS, Houghton College, 1983; MS, State University College at Buffalo, 1986

- Kenneth J. Bates** (Spr, 1989)
*Associate Professor of Business; Chair, Department of Business & Economics;
 Senior Professional in Human Resources; Hoselton Chair of Private Enterprise (2002-05)*
 BS, Houghton College, 1971; MBA, Loyola College, 1980
- Gary D. Baxter** (1979-1982, part-time; 1982)
Professor of Art
 BA, SUNY College at Geneseo, 1983; MFA, Rochester Institute of Technology, 1985
- Bradley G. Beach** (2000)
Professor of Philosophy
 BA, Houghton College, 1975; MA, Trinity Evangelical Divinity School, 1977; PhD,
 Syracuse University, 1998
- Willis Beardsley** (1980)
Director of Academic Assessment
 BA, Houghton College, 1960; MS, SUNY College at Geneseo, 1965; EdD, SUNY at
 Buffalo, 1977
- Alan M. Belford** (2003)
Instructor of Biology
 BS, Houghton College, 1996; MPS, SUNY College of Environmental Science and Forestry, 1999
- Blaine David Benedict** (1989)
Professor of Political Science
 BA, Houghton College, 1973; MA, PhD, University of Pennsylvania, 1974, 1977
- Scot E. Bennett** (1986)
Professor of Art
 BS, Roberts Wesleyan College, 1981; MFA, Rochester Institute of Technology, 1983
- Gregory T. Bish** (2004)
Director of Student Programs
 BA, Houghton, 1995; MS, Alfred University, 1997
- Robert A. Black** (1991)
Professor of Economics
 BA, West Virginia Wesleyan College, 1972; MA, PhD, West Virginia Univ, 1979, 1984
- Jonathan E. Bradshaw** (1999)
Assistant Professor of Accounting
 BS, Houghton College, 1997; MBA, Rochester Institute of Technology, 1999
- Bruce N. Brenneman** (1982-98 part-time, 1998)
Assistant Professor of English
 BS, Taylor University, 1961; MA, Wesleyan University, 1968
- Charles E. Bressler** (1980)
Professor of English
 BA, Wilkes College, 1972; MS, University of Scranton, 1974; PhD, Univ. of Georgia, 1985
- Darlene G. Bressler** (1985)
Professor of Education; Interim Associate Academic Dean
 BS, Geneva College, 1973; MS, Wilkes College 1974; PhD, University of Rochester, 1994
- John N. Brittain** (2003)
Dean of the Chapel; Professor of Religion
 AB, Brown University, 1969; MDiv, The Methodist Theological School, 1972; DMin,
 St. Mary's Seminary and University, 1985
- Betty J. Bunt** (1982)
Serials Librarian
 BA, Houghton College, 1966; MLS, SUNY College at Geneseo, 1981
- Jeff E. Carter** (1995-04 Adjunct; 2004-part time)
Director, Pastoral and Church Ministries Program; Assistant Professor of Christian Ministries
 BS, Grambling State University, 1969; MS, Canisius College, 1978
- Daniel R. Chamberlain** (1976)
President
 BA, Upland College, 1953; MA, California State College at Los Angeles, 1957; EdD,
 University of Southern California, 1967

- Larry W. Christensen** (1969)
Professor of Chemistry
 BA, Goshen College, 1965; PhD, Purdue University, 1969
- Shirley J. Close** (2001)
Associate Professor of Voice
 BA, Olivet Nazarene University; MMus, University of California (Los Angeles)
- Judy A. Congdon** (1991)
Professor of Organ
 BMus, Wheaton College, 1975; MMus, University of Colorado, 1977; Diploma, Hochschule fuer Musik, Frankfurt/Main, Germany, 1979; MA, DMA, Eastman Schl of Music, 1990
- Jacqueline M. Crisman** (2004)
Assistant Professor of Biology
 BS, SUNY at Geneseo, 1985; MS, PhD, Ohio State University, 1992, 1997
- Laurie A. Dashnau** (2000)
Associate Professor of English
 BA, Nazareth College, 1987; MA, PhD, Miami University of Ohio, 1989, 1996
- Marcus W. Dean** (2003)
Assistant Professor of Spanish & Intercultural Studies; Director of Off-Campus Programs
 BA, Indiana Wesleyan University, 1981; MDiv, ThM, Asbury Seminary, 1987, 1988; PhD, Trinity Seminary, 2001
- Paul T. DeBoer** (2002)
Professor of Brass Instruments
 BMus, Manhattan School of Music, 1973; MMus, DMus, Indiana University, 1974, 1987
- William R. Doezeema** (1979)
Professor of History
 AB, Calvin College, 1969; MA, PhD, Kent State University, 1974, 1978
- Richard K. Eckley** (1990)
Associate Professor of Theology
 BS, United Wesleyan College, 1980; MDiv, Asbury Theological Seminary, 1983; ThM, Princeton Theological Seminary, 1985; PhD, Duquesne University, 1998
- Constance R. Finney** (1981-86, part-time; 1986)
Professor of Education
 BA, Houghton College, 1978; MS, SUNY College at Buffalo, 1981; EdD, SUNY at Buffalo, 1994
- Carlton D. Fisher** (1985) (Sabbatical, fall 04)
Professor of Philosophy
 BA, Marion College, 1974; MA, Western Kentucky University, 1978; MA, PhD, University of Notre Dame, 1980, 1984
- Cathy E. Freytag** (2003)
Associate Professor of Education
 BS, Carson-Newman College, 1990; MA, University of Alabama, 1991; EdD, University of Central Florida, 2003
- Timothy R. Fuller** (1980)
Vice President for Enrollment Management
 BA, Houghton College, 1979; MBA, SUNY at Buffalo, 1989
- Dolores W. Gadevsky** (1989, part-time)
Associate Professor of Piano
 BMus, Los Angeles Conservatory, 1956; "Diplom," Akademie fuer Musik und Darstellende Kunst, Vienna, 1970; DMA, Eastman School of Music, 1987
- Douglas M. Gaerte** (1988)
Professor of Communication; Chair, Department of English and Communication
 BS, Grace College, 1983; MA, PhD, Indiana University, 1987, 1995
- Andrew F. Gallman, II** (1998)
Professor of Linguistics; Director, Intercultural Studies; Chair, Department of Foreign Languages and Linguistics
 BA, Millsaps College, 1970; MA, PhD, University of Texas at Arlington, 1974, 1983

- Robert J. Galloway** (1973)
Professor of Piano; Mabel Barnum Davidson Distinguished Professor (1998-2004)
 BM, Boston Univ., 1968; MM, *ibid.*, 1972; MTS, Gordon-Conwell Theol Sem., 1970; Staatliche Hochschule fuer Musik, Cologne, W. Germany, 1972-73; PhD, Michigan State Univ., 1995
- Richard A. Gould** (1968)
Associate Professor of Classics
 BA, Houghton College, 1961; MA, PhD, Princeton University, 1964, 1968
- Richard A. Halberg** (1975)
Professor of Business Administration; Certified Financial Planner
 BA, Houghton College, 1971; MBA, University of Akron, 1976
- Virginia A. Halberg** (1978, part-time)
Instructor of Piano
 BMus, Houghton College, 1971
- Lin He** (2004)
Assistant Professor of Violin
 BM, Shanghai Conservatory of Music, 1998; MM, Pennsylvania State University, 2000
- Susan M. Hice** (1993)
Associate Professor of Education; Director, Student Academic Services
 BA, Kalamazoo College, 1965; MSciEd, SUNY College at Fredonia, 1974; PhD, Michigan State Univ., 1983
- Kelley Hijleh** (1993, part-time)
Instructor of Voice
 BMus, Peabody Conservatory, 1991; Grad. Perf. Dipl., *ibid.*, 1993
- Mark D. Hijleh** (1993)
Professor of Composition and Conducting
 BS, William Jewell College, 1985; MM, Ithaca College School of Music, 1987; DMA, Peabody Conservatory, 1991
- David A. Howard** (1969)
Professor of History; Interim Chair, Department of History/Political Science
 BA, Gordon College, 1965; MA, PhD, Duke University, 1967, 1972
- Irmgard K. Howard** (1970)
Professor of Chemistry; Chair, Department of Chemistry
 BA, PhD, Duke University, 1962, 1970
- Wei Hu** (1997)
Associate Professor of Mathematics and Computer Science
 BS, Zhejiang Teacher's University, 1982; MS, Hangzhou University, 1985; MS, Michigan State University, 1994; MS, PhD, University of Kentucky, 1996, 1997
- Nan M. Hussey** (2002)
Assistant Professor of German and Spanish
 BA, Hope College, 1982; MA, University of Washington, 1992; PhD, *ibid.*, 1999
- Richard A. Jacobson** (1966)
Professor of Mathematics; Chair, Department of Mathematics & Computer Science
 BS, MS, South Dakota School of Mines, 1959, 1961
- Brandon Johnson** (2003)
Assistant Professor of Vocal Music & Conducting and Director of Choral Activities
 BMus, Concordia College, 1996; MMus, DMA, University of Arizona, 2001, 2003
- Sandra D. Johnson** (2000)
Athletic Trainer/Physical Education Instructor
 BS, Houghton College, 1999; MSED, University of Akron, 2000
- Thomas R. Kettelkamp** (1975-76, 1978)
Professor of Recreation and Physical Education
 BS, Southern Illinois University, 1970; MS, Illinois State University, 1972; PhD, University of Illinois, 1982
- Ben R. King** (1980-1992, 1996)
Professor of Voice; Director, School of Music; Associate Dean for Music
 BM, MM, Texas Tech University, 1973, 1974; DMA, Eastman School of Music, 1985

- Harold E. Kingdon** (1967)
Professor of Christian Ministries
 BA, Houghton College, 1957; MDiv, ThM, Asbury Theological Seminary, 1966, 1967;
 DMin, Bethel Seminary, 1978
- Jill K. Kingdon** (2001)
Head Reference Librarian
 BA, Houghton College, 1985; MSLS, Catholic University of America, 1999
- Kristina LaCelle-Peterson** (2001)
Associate Professor of Religion
 BA, Houghton College, 1982; Mdiv., Gordon Conwell Theological Seminary, 1987;
 MPhil., PhD, Drew University Graduate School, 1992, 2001
- Mark LaCelle-Peterson** (2001)
Associate Professor of Education; Chair, Department of Education
 BA, MA, University of Minnesota, 1984, 1987; EdM, EdD, Harvard, 1991
- Michael D. Lastoria** (1982)
Director of Counseling Services
 BS, Rutgers University, 1970; MS, University of Nebraska (Omaha), 1974; EdD, Loyola University (Chicago), 1982; Clinical Internship, Marriage and Family Therapy, University of Rochester, 1987-92; Clinical Member, American Assoc. of Marriage and Family Therapists
- John R. Leax** (1968)
Professor of English; Poet in Residence
 BA, Houghton College, 1967; MA, Johns Hopkins University, 1968
- David B. Lewis** (1993)
Associate Vice President for Christian Life
 BA, The King's College, 1978; MDiv, DMin, Gordon-Conwell Theol. Sem., 1982, 1992
- Mengyang Li** (2004)
Assistant Professor of Chemistry
 BS, Nanjing University, 1982; MS, Beijing University, 1985; MS University of Rochester, 1989;
 PhD, University of Chicago, 1995
- Benjamin J. B. Lipscomb** (2002)
Assistant Professor of Philosophy
 BA, Calvin College, 1996; MA, PhD, University of Notre Dame; 1999, 2002
- Rebecca C. Loaiza** (1998)
Assistant Professor of Spanish
 BA, Houghton College, 1995; MEd, Regent University, 2001
- Wayne A. MacBeth** (1975-92; 2004)
Vice President for Student Life
 BA, Houghton College, 1975; MBA, St. Bonaventure, 1988
- Elisabeth Markell** (2002)
Interim Assistant Professor of Recreation
 BS, Houghton College, 1986; MS, Alfred University, 1990
- Susan G. Martin** (1994, part-time; 1995)
Assistant Professor of Education
 BS, Houghton College, 1984; MS, Alfred University, 1990
- Charles E. Massey** (1976; part-time since 1998)
Professor of Education
 AB, Southern Pilgrim College, 1968; MA, EdD, Univ. of NC at Greensboro, 1972, 1976
- Jayne E. Maugans** (1991-92; 1993)
Professor of Sociology
 BA, MA, Wichita State University, 1983, 1988; PhD, SUNY at Buffalo, 1990
- Peter C. Meilaender** (2001)
Assistant Professor of Political Science
 BA, Kenyon College, 1993; MA, PhD, University of Notre Dame, 1997, 1999
- Jeffrey R. Moore** (1997)
Assistant Professor of Business Administration
 BA, Whitworth College, 1990; MBA, PhD, Universite de Nice Sophia-Antipolis, 1991, 1999

- Theodore J. Murphy** (1986)
Professor of Art
 BA, Mount Vernon Nazarene College, 1980; MFA, Ohio State University, 1983
- William J. Newbrough** (2002)
Assistant Professor of Piano
 BA, University of California at Berkeley, 1994; MM, Peabody Conservatory of Music/Johns Hopkins University, 1995; DMA, *ibid.*, 1998; AD, *ibid.*, 2000
- Timothy J. Nichols** (1990)
Director of Career Services
 BA, Houghton College, 1981; MS, SUNY College at Buffalo, 1983; PhD, University at Buffalo, 1997
- Ronald J. Oakerson** (1992)
Academic Vice President and Dean of the College; Professor of Political Science
 BA, Taylor University, 1966; MA, PhD, Indiana University, 1973, 1978
- Terence P. Paige** (1994)
Professor of New Testament
 BA, Seattle Pacific University, 1982; MCS, MDiv., Regent College, 1986; PhD, University of Sheffield (England), 1994
- Michael Pearse** (2004)
Associate Professor of History
 BA, Wales, 1978; DMS, Polytechnic of Wales, 1981; MPhil, Oxford, 1989; DPhil, *ibid.*, 1992
- Matthew K. Pelletier** (1999)
Associate Professor of Biology; Moreland Research Professor in Biology (2003-2005)
 BS, Liberty University, 1993; PhD, Virginia Tech, 1997
- David Perkins** (1998-00, part-time; 2000)
Assistant Professor of Mathematics
 BA, Houghton College, 1988; MS, South Dakota State University, 1997; ABD, University of Montana
- Richard B. Perkins** (1978)
Professor of Sociology
 BA, Wheaton College, 1965; MA, PhD, University of Massachusetts, 1972, 1977
- Trini G. Rangel** (1998)
Instructor of Physical Education
 BS, Colorado State University, 1991; MS, Bemidji State University, 1996
- Barbara Jean Reigles** (1975)
Professor of Voice
 BS, Roberts Wesleyan, 1969; MM, University of Cincinnati Conservatory of Music, 1975; PhD, Texas Tech University, 1995
- Lawrence R. Reining** (2003)
Director, Willard J. Houghton Library
 BS, Houghton College, 1978; MS, Purdue University, 1981; MALIS, Northern Illinois University, 1992
- John M. Rhett** (1995) (Sabbatical, spring 05)
Associate Professor of Art; Chair, Department of Art
 BFA, MFA, Virginia Commonwealth University, 1979, 1995
- Jean-Louis Roederer** (1966-72; 1976) (Sabbatical, fall 04)
Associate Professor of French and Spanish
 BA, Houghton College, 1964; MA, Middlebury College, 1970
- Ronald C. Rohe** (2001)
Associate Professor of Physics
 BA, BS, University of Rochester, 1978; MA, Cincinnati Bible Seminary, 1998; PhD, Massachusetts Institute of Technology, 1985
- Roger J. Rozendal** (1972)
Associate Professor of Communication
 BA, Northwestern College, 1965; MA, Oklahoma State University, 1969

- Carl Schultz** (1965-67; 1971)
Professor of Old Testament
BRE, Malone College, 1952; BA, Houghton College, 1953; MA, Wheaton College, 1954; PhD, Brandeis University, 1973
- Paul W. Shea** (1994-96, part-time; 1996)
Associate Professor of Missions
BA, Houghton College, 1969; MDiv, DMiss, Trinity Evangelical Div. Sch., 1973, 1994
- Robert B. Smalley** (1988)
Instructor of Recreation
BS, Houghton College, 1978; MEd, State University of New York at Buffalo, 1985
- Jeffrey B. Spear** (1989-91; spr, 1997)
Vice President for Finance; Assistant Professor of Accounting
BS, Houghton College, 1979; MS, Rochester Institute of Technology, 1984
- Richard D. Stegen** (1981)
Professor of Psychology
BA, Houghton College, 1969; MA, Temple University, 1972; PhD, St. John's Univ., 1982
- Daryl H. Stevenson** (1982)
Professor of Psychology; Chair, Department of Psychology and Sociology
BA, Houghton College, 1970; MS, SUNY College at Brockport, 1975; MA, PhD, Rosemead Graduate School of Psychology, 1978, 1981
- William Christopher Stewart** (1993)
Professor of Philosophy; Associate Director of London Programs
BA, Wheaton College, 1982; MA, Western Kentucky University, 1988; MA, PhD, University of Notre Dame, 1989, 1992
- Gary M. Stith** (2002)
Associate Professor of Music Education
BMus, Ohio State University, 1972; MMus, Eastman School of Music, 1978
- Aaron M. Sullivan** (2004)
Interim Assistant Professor of Biology
BS, Mount Vernon Nazarene University, 1997; MS, Southwest Missouri State University, 1999; PhD, SUNY Binghamton, 2004
- William R. Swanson** (1994)
Professor of Physical Education; Chair, Department of Physical Education/Recreation
BS, MS, EdD, Illinois State University, 1974, 1980, 1989
- Cynthia S. Symons** (1994)
Professor of Psychology
BA, Utica College, 1986; MS, PhD, Syracuse University, 1990, 1992
- Angela Tudorii** (2000)
Assistant Professor of French
BA, Babes-Bolyai University (Romania), 1977; MA, Ecole des Hautes Etudes en Sciences Sociales (France), 1996
- John R. Tyson** (1979)
Professor of Theology
AB, Grove City College, 1974; MDiv, Asbury Theological Seminary, 1977; MPhil, PhD, The Graduate School Drew University, 1980, 1983
- Paula A. Valley** (2000 - part-time)
Reference Librarian
BS, SUNY College at Buffalo, 1974; MSE, St. Bonaventure University, 1988; MILS, SUNY at Buffalo, 1998
- John F. Van Wicklin** (1983)
Professor of Psychology
BS, Wheaton College, 1968; MA, Columbia University, 1971; PhD, New School for Social Research, 1981
- J. Michael Walters** (1995) (Sabbatical, spring 05)
Professor of Christian Ministries; Director of Ministerial Education; Chair, Department of Religion & Philosophy
BA, Circleville Bible College, 1972; BA, Houghton College, 1986; MAR, Asbury Theol. Sem., 1974; MA, St. Mary's Univ., 1980; DMin, Trinity Evangelical Divinity School, 1991

- James F. Wardwell** (1989)
Associate Professor of English
 BA, Gordon College, 1979; MDiv, Eastern Baptist Theological Seminary, 1982; MA, Villanova University, 1984; PhD, University of Rhode Island, 1989
- Paul R. Watson II** (2000)
Assistant Professor of Mathematics Education
 BA, Houghton College, 1998; MS, Syracuse University, 2000
- Bradley E. Wilber** (1997)
Reference and Music Librarian
 BA, Houghton College, 1991; MLS, Syracuse University, 1996
- James M. Wolfe** (1988)
Professor of Biology; Chair, Department of Biology; Moreland Research Professor in Biology (2003-2005)
 BA, Gordon College, 1975; MS, University of Oklahoma, 1978; PhD, University of Rhode Island, 1988
- Daniel P. Woolsey** (1991)
Professor of Education
 BA, Houghton College, 1977; MA, Simmons College, 1983; PhD, Ohio State University (Columbus), 1986
- Linda Mills Woolsey** (1999, part-time)
Professor of English
 BA, Houghton College, 1974; MA, SUNY Binghamton, 1976; PhD, Drew University, 1989
- Stephen A. Woolsey** (1999)
Professor of English
 BA, Houghton College, 1973; MA, SUNY Binghamton, 1976; PhD, Drew University, 1988
- Paul D. Young** (1980)
Professor of Psychology; Chair, Department of Integrative Studies
 BS, Houghton College, 1976; MA, PhD, University of Alberta, 1978, 1984
- Jo-Anne O. Young** (1985; part-time)
Instructor of Horsemanship; Equestrian Program Director
 BS, Houghton College, 1969
- Mark E. Yuly** (2000)
Professor of Physics; Chair, Department of Physics/Earth Science
 BS, Northwest Nazarene College, 1987; PhD, Massachusetts Inst. of Technology, 1993
- Bradford P. Zarges** (1999)
Men's Basketball Coach; Instructor of Physical Education
 BS, Houghton College, 1992; MA, East Tennessee State University, 1999
- James A. Zoller** (1984)
Professor of Writing and Literature; Van Gordon Chair in Communication and Writing (2003-2006)
 BA, University of New Hampshire, 1971; MA, San Francisco State University, 1973; DA, SUNY at Albany, 1984

ADJUNCT FACULTY

- Thomas Alvord** (1987)
Adjunct Professor of Literature at the Oregon Extension
 BA, The King's College, 1970; MA, Trinity Evangelical Divinity School, 1972; MA, Northeastern Illinois Univ, 1978
- John M. Andrews, Jr.** (1986)
Adjunct Professor of Physics
 BS, Houghton College, 1958; PhD, Massachusetts Institute of Technology, 1964
- Philip Bence** (1999)
Adjunct Associate Professor of Religion
 BA, Houghton College, 1978; MDiv, Asbury Theological Seminary, 1981; PhD, St. Mary's College, University of St. Andrews (Scotland), 1989

- John A. Bernbaum** (1977)
Adjunct Professor of American Studies
 AB, Calvin College, 1965; MA, PhD, University of Maryland, 1967, 1972
- Douglas Frank** (1987)
Adjunct Professor of History at the Oregon Extension
 BA, Wheaton College, 1963; MA, PhD, SUNY at Buffalo, 1966, 1968
- Wilson Greatbatch** (1968)
Adjunct Professor of Physical Science
 BA, Cornell, 1950; MS, SUNY at Buffalo, 1957; ScD, Houghton College, 1970; ScD, SUNY at Buffalo, 1980
- Joseph T. King, MD** (1989)
Adjunct Professor of Clinical Laboratory Science
 Associate Pathologist and Medical Advisor, Robert Packer Hospital Clinical Laboratory Science Program
- Jameson Kurasha** (1999)
Adjunct Professor of Philosophy
 BA, University of York (UK), 1978; MA, University of Manitoba (Canada), 1981; MA, University of Zimbabwe: Harare, 1993; PhD, Georgetown University, 1985
- John Linton** (1987)
Adjunct Professor of Bible at the Oregon Extension
 BS, Wheaton College, 1967; MDiv, Wheaton Grad School, 1970; MA, PhD, University of Wisconsin, 1973, 1987
- Nancy Linton** (1987)
Adjunct Professor of Education at the Oregon Extension
 BS, Wheaton College, 1970; MS, Northern Illinois University, 1979
- Anthony Petrillo** (1996)
Adjunct Professor of Computer Science
 BA, SUNY at Buffalo, 1980; MBA, *ibid.*, 1982; PhD, *ibid.*, 1992
- Brian Spezialetti** (1988)
Adjunct Professor of Clinical Laboratory Science; Program Director, Robert Packer Hospital Clinical Science Program
 MS, Elmira College
- Robert C. Tice** (1986)
Adjunct Assistant Professor of Christian Education
 BS, Houghton College, 1980; MA, ThM, Fuller Theological Seminary, 1984, 1986
- James Titus** (1987)
Adjunct Professor of Biology at the Oregon Extension
 BA, Houghton College, 1965; MEd, SUNY at Buffalo, 1967; PhD, University of New York, College of Environmental Sciences and Forestry at Syracuse, 1979

FACULTY EMERITI

Dates indicate beginning and termination of service.

- Richard J. Alderman** (1971-91)
Director of Admissions and Records; Executive Director of Alumni
 BA, Houghton College, 1952; MS, Alfred University 1960
- William T. Allen** (1953-92)
Professor of Piano and Theory, Composer in Residence
 BM, MMus, Northwestern University School of Music, 1950, 1951; PhD, Eastman School of Music, 1954
- Bruce C. Brown** (1974-2002)
Professor of Voice
 BM, Wheaton College, 1962; MM, DMA, University of Southern California, 1964, 1974
- E. Douglas Burke** (1958-94)
Professor of Physical Education; Director of Intercollegiate Athletics
 BS, Wheaton College, 1953; MA, Syracuse University, 1954

- Ruth G. Butler** (1969-85)
Librarian-Buffalo Suburban Campus
BEd, Geneseo State Teachers College, 1943; MLS, SUNY College at Geneseo, 1964
- Arnold W. Cook** (1960-89)
Professor of Business Administration; Head, Business Admin. and Economics Department
BA, Houghton College, 1943; Certified Public Accountant (Washington); MA, East Tennessee State University, 1970
- E. Elizabeth Cook** (1964-88)
Associate Professor of Biology
BS, Houghton College, 1962; MS, St. Bonaventure University, 1972
- L. Keith Cheney** (1963-75)
Professor of Education; Head, Education Department
BS, Michigan State, 1929; MS, University of Michigan, 1936; Diploma for Advanced Graduate Studies, Michigan State University, 1963
- Robert L. Cummings** (1962-88)
Professor of German
BA, Houghton College, 1950; MA, University of Rochester, 1952
- William N. A. Greenway** (1962-99)
Associate Professor of English
BA, Bob Jones University, 1956; MA, Stetson University, 1962
- Lola M. Haller** (1963-91)
Professor of Education; Coordinator of Teacher Certification
BS, MA, Western Michigan College of Educ., 1954, 1957; EdD, Michigan State Univ., 1967
- Helen H. Hirsch** (1960-80)
Professor of Christian Education
BA, Upland College, 1949; MRE, Asbury Theol Sem, 1959; EdD, University of Pittsburgh, 1966
- Ruth F. Hutton** (1962-88)
Associate Professor of English and Speech
BA, Houghton College, 1943; MA, Wheaton College, 1947; MA, SUNY College at Brockport, 1979
- Paul F. Johnson** (1972-94)
Professor of French
BA, MA, Boston University, 1951; MEd, Rhode Island College, 1969
- Katherine W. Lindley** (1963-89)
Professor of History; Chair, Division of History and Social Science
BA, Houghton College, 1943; MA, PhD, University of Wisconsin, 1946, 1949
- Kenneth E. Lindley** (1963-89)
Professor of Physics and Mathematics; Chair, Division of Science and Mathematics
BS, MS, University of Wisconsin, 1948, 1949; PhD, University of Iowa, 1953
- Robert R. Luckey** (1942-76)
Professor of Mathematics; College Administrator
BA, BS, Houghton College, 1936, 1937; MEd, NYU, 1939; PhD, Cornell University, 1942
- Harold E. McNiel** (1958-2002)
Professor of Brass Instruments
BM, Oklahoma City Univ., 1956; MMus, DMA, Eastman Schl of Music, 1958, 1968
- Robert A. Mattke** (1969-88)
Associate Professor of Bible and Theology
BS, University of Wisconsin, 1946; BD, Asbury Theological Seminary, 1949; MA, State University of Iowa, 1965
- Laurence K. Mullen** (1966-93)
Professor of Bible and Philosophy; Director of Church Relations
BA, ThB, Eastern Nazarene College, 1949, 1950; MA, Boston University, 1952
- Doris J. Nielsen** (1971-1997)
Associate Professor of Recreation and Physical Education, Director of Upward Bound
BA, Houghton College, 1971; MEd, SUNY at Buffalo, 1982

- Kenneth L. Nielsen** (1972-1997)
Vice President for Finance
BA, The King's College, 1954; MDiv, Faith Theological Seminary, 1958
- Edgar R. Norton** (1956-93)
Associate Professor of Music Education; Music Education Coordinator
Mabel Barnum Davidson Professor of Fine Arts
BS, Fredonia State Teachers College, 1949; MS, Potsdam State Teachers College, 1960
- Frederic C. Parker** (1976-1998)
Associate Professor of Mathematics
BS, MS, Columbia University, 1954, 1955; MS, University of Notre Dame, 1964
- Richard C. Pocock** (1959-95)
Professor of Mathematics
BA, Houghton College, 1955; MS, Syracuse University, 1959; EdD, Columbia Univ, 1974
- Alice M. Pool** (1935-74)
Professor of Spanish
BA, Houghton College, 1929; MA, Middlebury College, 1935; Doctora en Letras, University of Mexico, 1950
- Edith Redman** (1975-87)
Head Catalog Librarian
BA, Houghton College, 1942; MSLS, SUNY College at Geneseo, 1961
- William A. Roeske** (1965-95)
Associate Professor of Mathematics; Director of Data Processing
BS, Houghton College, 1956; MA, University of Buffalo, 1960
- Frederick Shannon** (1958-93)
Professor of Chemistry; Chair, Department of Integrated Studies
BS, MS, PhD, University of Akron, 1953, 1959, 1964
- Marjorie O. Stockin** (1939-59, 1963-78)
Associate Professor of Art
BS, Columbia University, 1938; DFA, Houghton College, 1994
- George R. Wells** (1947-88)
Professor of Physical Education
BA, Houghton College, 1947; MEd, Springfield College, 1950; EdD Univ. of Buffalo, 1956
- Edward J. Willett** (1962-85)
Professor of Economics
BA, Houghton College, 1939; MA, Syracuse University, 1967; EdD, SUNY at Buffalo, 1973
- Lois Jane Wilt** (1968-88)
Assistant Professor of Music
BMus, Houghton College, 1946; MA, Western Reserve University, 1947
- Richard L. Wing** (1978-98)
Professor of Writing; Administrator
BS, Cornell University, 1956; MEd, University of Southern California, 1970; PhD, SUNY at Buffalo, 1990
- Warren M. Woolsey** (1958-59; 1966-94)
Professor of New Testament and Missions
BA, Houghton College, 1943; STB, Biblical Theol. Sem, 1950; STM, Lutheran School of Theology, 1977

RETIREEES

Coenraad Bakker (1997-2002)

Associate Professor of Computer Science

BS, Parsons College, 1965; MS, University of Rochester, 1970

George Bennett (1985-2003)

Director of Learning Resources

BA, Emory and Henry College, 1962; MA, Middlebury College, 1970; MLS, SUNY College at Geneseo, 1973; PhD, SUNY at Buffalo, 1987

Carol A. Brown (1995-2002, part-time)

Assistant Professor of Education

BA, Owosso College; BS, Spring Arbor College, 1965; MLS, SUNY Geneseo, 1981

Catharine Daggett (1991-2003)

Adjunct Instructor of Horsemanship

BFA, Alfred University, 1958

Betty R. Giles (1988-92, part-time; 1992-97)

Interim Assistant Professor of Voice

BMus, West Virginia University, 1954; MM, New England Conservatory of Music, 1956

G. Edna Howard (1988-96)

Professor of Education

BS, Southern Illinois Univ., 1966; MA, University of Northern Colorado, 1973; PhD, University of Alabama, 1984

Ellen E. Kreckman (1975-1998)

Cataloger and Catalog Coordinator

BA, Houghton College, 1959; MSLS, Syracuse University, 1961

Bernard J. Piersma (1971-2004)

Professor of Chemistry

BA, Colgate University, 1959; MS, St Lawrence, 1961; PhD, Univ. of Pennsylvania, 1965

John H. Robson (1991-95)

Professor of Education; Director, Adult Degree Completion Program

BA, Roberts Wesleyan College, 1953; EdM, SEA, EdD, SUNY at Buffalo, 1958, 1965, 1971

William L. Siemens (1988-95)

Professor of Spanish

BA, Wheaton College, 1958; MDiv, Gordon-Conwell Seminary, 1961; MA, University of Massachusetts, 1967; PhD, University of Kansas, 1971

Gudrun M. Stevenson (1990-2002; part-time)

Assistant Professor of German

BA, Houghton College, 1970; MA, Middlebury College, 1996