

# HOUGHTON COLLEGE

*Directed by*

The Wesleyan Church

*since its founding in 1883*

# Catalog

2000-01

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This catalog is intended to represent accurately the academic programs, policies, and personal expectations of the college for the academic year. However, routine changes in programs and in financial charges may occur and will apply to the academic year. Because the college reserves the right to withdraw or add offerings and make other necessary changes after this catalog has been printed, this publication is a guide and is not an irrevocable contract between the student and the college.

The main campus admissions office in Fancher Hall is open weekdays, 8 a.m. until noon and 1 p.m. until 5 p.m. The financial aid and academic records offices are in Luckey Building and are open daily during posted business hours. College offices are closed Saturdays and Sundays. Visitors are welcome at any time and tours may be arranged. Please give a week's notice. Phone: (716) 567-9200, or toll free 1-800-777-2556.

The West Seneca Campus is located at 910 Union Road, West Seneca (14224), and visitors are welcome Mondays through Fridays, 9 a.m. to 4:30 p.m. Phone: (716) 674-6363.

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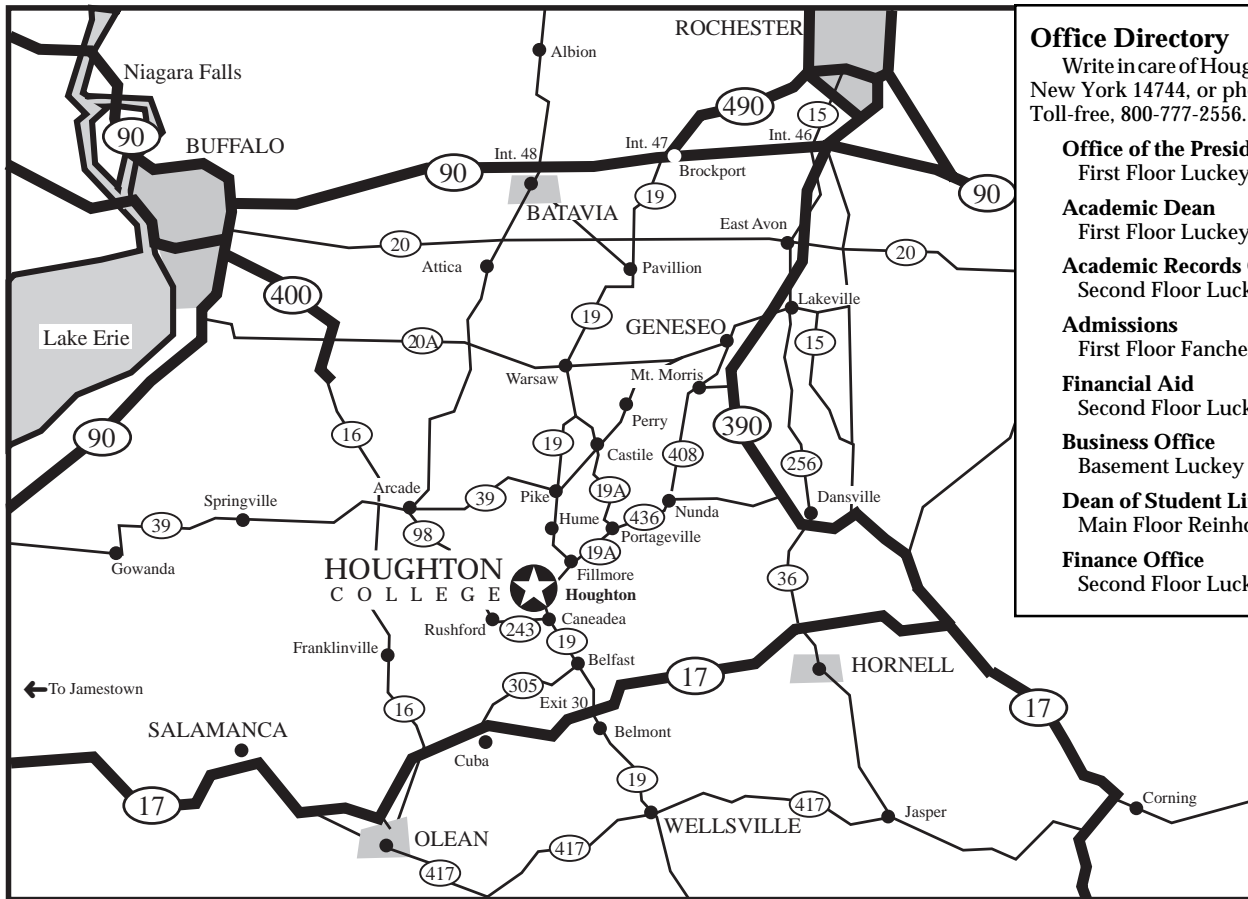
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## Accreditations

Houghton College is accredited by the Middle States Association of Colleges and Schools and the Regents of the University of the State of New York, and is a member of the National Association of Schools of Music.

## Equal Opportunity

The college admits students of any race to all rights, privileges, programs and activities generally accorded or made available to students at the respective campuses, and the college does not discriminate on the basis of race or sex in administration of its employment practices, educational policies, admissions policies, scholarship and loan programs, and athletics and other college 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.



**Office Directory**

Write in care of Houghton College, Houghton, New York 14744, or phone (716) 567-9200. Toll-free, 800-777-2556.

- Office of the President**  
First Floor Luckey Memorial Building
- Academic Dean**  
First Floor Luckey Memorial Building
- Academic Records Office**  
Second Floor Luckey Memorial Building
- Admissions**  
First Floor Fancher Building
- Financial Aid**  
Second Floor Luckey Memorial Building
- Business Office**  
Basement Luckey Memorial Building
- Dean of Student Life**  
Main Floor Reinhold Campus Center
- Finance Office**  
Second Floor Luckey Memorial Building

# 2000-01 Calendar

## FALL SEMESTER

Aug 25, Friday  
Aug 26, Saturday  
Aug 28, Monday, 7:45 am  
Aug 28-Sept 1  
Aug 29, Tuesday (tentative)  
Sep 3-8, Sun.-Fri.  
Sep 11, Monday  
Oct. 6-7, Fri.-Sat.  
Oct 13-14  
Oct 17, Tuesday  
Oct 20-22, Fri.-Sun.  
Oct 23, Monday, 7:45 am  
Oct 24, Tues., 11 am  
Oct 27-28  
Oct. 31-Nov. 10, Tue.-Fri.  
Nov 6, Monday  
Nov 22-26, Wed-Sun  
Nov 27, Mon., 7:45 am  
Dec. 8, Fri.  
Dec 11am, 11-15, Tue.-Fri.  
Dec 15, Fri., 12:30 pm  
Dec 22, Fri., 11 am

New students arrive  
New student orientation  
Classes begin  
Validation week  
Student teacher orientation and validation  
Christian Life Emphasis Week (tentative)  
Last day to add full semester courses\*  
Founders' Day/Homecoming  
Parents' weekend for upperclass students  
Second half semester courses begin\*  
October break  
Classes resume  
Midsemester grades due  
Parents' weekend for first-year students  
Course selection  
Last day to drop full sem course without F\*  
Thanksgiving recess  
Classes resume  
Last day of classes  
Reading day/Final exams (see exam schedule)  
Semester ends  
Final grades due

## SPRING SEMESTER

Jan. 8, Monday, 7:45 am  
Jan. 8-12  
Jan 14-19, Sun.-Fri.  
Jan 22, Monday  
Feb. 17-Feb. 25, Sat.-Sun.  
Feb. 26, Monday, 7:45 am  
Mar 6, Tuesday  
Mar 13, Tues., 11 am  
Apr 2, Monday  
Mar 27-Apr 3, Tues.-Tues.  
Apr 7-16  
Apr 17, Tuesday, 8 am  
May 1, Tue.  
May 2, 3-5, 7-8  
May 8, Tues., 5:30 pm  
May 10, Thurs., 11 am  
May 13, Sunday, 10:30 am  
May 14, Monday, 10 am  
May 21, Mon., 11 am

Classes begin  
Validation  
Christian Life Emphasis Week (tentative)  
Last day to add full semester courses\*  
February break  
Classes resume  
Second half semester courses begin\*  
Midsemester grades due  
Last day to drop full sem course without F\*  
Course selection  
Easter vacation  
Classes resume  
Last day of classes  
Reading day/Final exams (see exam schedule)  
Semester ends  
Senior grades due  
Baccalaureate  
Commencement  
Final grades due

## MAYTERM

May 15, Tuesday, 8:00 am  
Jun 1, Friday  
Jun 8, Friday  
Jun 12, Tuesday, 11 am

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.**

# 2001-02 Calendar

## FALL SEMESTER

Aug 31, Friday  
 Sept 1, Saturday  
 Sept 3, Monday, 7:45 am  
 Sept 3-7  
 TBD  
 Sep 9-14, Sun.-Fri.??  
 Sep 17, Monday  
 Oct. 5-6, Fri.-Sat.  
 Oct 12-13  
 Oct 18-21, Thur.-Sun.  
 Oct 22, Monday, 7:45 am  
 Oct 23, Tues., 11 am  
 Oct 24 Wednesday  
 Oct 26-27  
 Nov 1-8, Thur.-Thur.  
 Nov 12, Monday  
 Nov 21-25, Wed-Sun  
 Nov 26, Mon., 7:45 am  
 Dec. 14, Fri.  
 Dec 15-20, Sat.-Thu.  
 Dec 20, Thu., 6:00 pm  
 Dec 27, Thur., 11 am

New students arrive  
 New student orientation  
 Classes begin  
 Validation week  
 Student teacher orientation and validation  
 Christian Life Emphasis Week (tentative)  
 Last day to add full semester courses\*  
 Founders' Day/Homecoming  
 Parents' weekend for upperclass students  
 October break  
 Classes resume  
 Midsemester grades due  
 Second half semester courses begin\*  
 Parents' weekend for first-year students  
 Course selection  
 Last day to drop full sem course without F\*  
 Thanksgiving recess  
 Classes resume  
 Last day of classes  
 Reading day/Final exams (see exam schedule)  
 Semester ends  
 Final grades due

## SPRING SEMESTER

Jan. 14, Monday, 7:45 am  
 Jan. 14-18  
 Jan 20-25, Sun.-Fri.  
 Jan 28, Monday  
 Feb. 20-Feb. 24, Wed.-Sun.  
 Feb. 25, Monday, 7:45 am  
 Mar 6, Wednesday  
 Mar 12, Tues., 11 am  
 Mar 23-Apr 1, Sat.-Mon.  
 Apr 2, Tuesday, 8 am  
 Apr 4, Thursday  
 Apr 8-11, Mon.-Thur.  
 May 2, Fri schedl on Thur.  
 May 3, 4, 6-8  
 May 8, Wed., 6:00 pm  
 May 9, Thurs., 11 am  
 May 12, Sunday, 10:30 am  
 May 13, Monday, 10 am  
 May 20, Mon., 11 am

Classes begin  
 Validation  
 Christian Life Emphasis Week (tentative)  
 Last day to add full semester courses\*  
 February break  
 Classes resume  
 Second half semester courses begin\*  
 Midsemester grades due  
 Easter vacation  
 Classes resume  
 Last day to drop full sem course without F\*  
 Course selection  
 Last day of classes  
 Reading day/Final exams (see exam schedule)  
 Semester ends  
 Senior grades due  
 Baccalaureate  
 Commencement  
 Final grades due

## MAYTERM

May 14, Tuesday, 8:00 am  
 May 31, Friday  
 Jun 7, Friday  
 Jun 11, Tuesday, 11 am

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.**

# 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 Expectations**

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 other local churches, 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 its present size of approximately 1200.

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.

College development has added several major buildings within the past few years, most recently the Stevens Art Studios and the academic building. A new fine arts facility is currently under construction as well as significant improvements and changes to outdoor athletic facilities. 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 1300 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 Letch-

worth 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 organizational management.

**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 Houghton College 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**

During the years 1993-96, Houghton graduated an average of 254 students each year, 57 percent of whom responded annually to the college's placement survey conducted by Career Services.

From those who responded, an average of 62.8 percent reported obtaining gainful full-time employment, 19.6 percent reported obtaining part-time employment, 1 percent reported entering military service, and 33.6 percent reported entering graduate study.

**Christian College Consortium**

Houghton College is a member of the Christian College Consortium, based in Concord, New Hampshire, which provides valuable cooperative program. 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; 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 approximately 92 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 the 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 on-going consortium relationship with three other colleges serving this 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 the 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.

## 10/General Information

### **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).

### **Articulation Agreements**

Houghton College has established formal articulation agreements with several western New York two-year colleges. These agreements allow graduates who meet certain criteria to transfer directly to Houghton with junior class standing. These colleges include: Jamestown Community College, Trocaire College, Villa Maria College.



*Participation in some 45 co-curricular activities, from music ensembles and ski club to yearbook and student government, enhance a Christian liberal arts education.*

# 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, of references, and of 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](mailto:admission@houghton.edu), or phone 800-777-2556. An applicant desiring to major in music should request a special application form, which is to be filled out in addition to the regular forms. Address all correspondence to the Office of Admission.

## **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 allows. A student will be considered for admission after all parts of the application are received, including the signed completed application form, a pastor's recommendation, high school transcripts, an official statement of test scores, 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 his or her place in the entering class.

Applications for the second semester must be received by December 1 and all credentials must be on file by January 1.

## **Application**

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

## **Class Size**

The college seeks to enroll approximately 300 first-year students and 80 transfers each fall semester. Selection of successful candidates is on the basis of the general requirements in order of receipt of complete applications. Both first-year students and transfers may also apply for spring semester admission.

## **Minimum Requirements**

In gaining a high school diploma, the applicant must have at least sixteen units, including three in English. Credits for physical education do not count toward this requirement.

## **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:

English.....	4
Foreign language .....	2
Algebra* .....	at least 1
Geometry* .....	1

History or social science ..... at least 3  
 Science ..... at least 2

**\*For New York State students, Houghton recommends at least mathematics course I and II.**

### **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. Seniors may retake the test to raise their scores if they so desire. Achievement tests are not required.

The applicant is responsible for making all arrangements with CEEB or ACT authorities to take this test. A bulletin of information regarding the Scholastic Aptitude Test may be obtained without charge by writing to College Entrance Examination Board, P.O. Box 592, Princeton NJ 08540. (Applicants in western states, territories, or Pacific areas should write to College Entrance Examination Board, P.O. Box 1025, Berkeley CA 94701.)

Dates for test administrations are available in your guidance office. A cutoff date for applications to take the Scholastic Assessment Test precedes each test date by approximately four weeks.

### **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, 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 matriculated providing all other factors are acceptable.

### **High School Equivalency**

An applicant may be considered for admission to first-year standing 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.

### **Limitation on Non-classroom Credit**

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

### **Advanced Placement Tests**

Advanced course standing and college credit may be granted to students who pass the College Entrance Examination Board Advanced Placement 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 of the exam papers by Houghton College faculty members.

Inquiry concerning these tests should be made to the high school guidance office or to Advanced Placement Program, College Entrance Examination Board, 45 Columbus Avenue, New York, NY 10023-6992.

### **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 \$44 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 through Dr. Willis Beardsley, CLEP administrator.

### 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 are expected to reside 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 will be used to figure grade point averages; accepted hours earned elsewhere, however, will be posted to the Houghton transcript.*

Transfer credit rules:

- Transfer credits are accepted from institutions accredited by a regional association and listed by the U.S. Office of Education in its current Education Directory, Colleges and Universities.
- Transfer credit will be given for appropriate courses completed with a grade of C- or above, taken at a four-year institution.
- Transfer credit of up to 67 hours will be given for appropriate courses completed with a grade of C- or above, taken at a two-year institution.
- **At least 62 hours must be taken at Houghton to be eligible for honors (*cum, magna, summa*) at graduation.**

To apply for admission, a transfer student must submit an application, pastor's recommendation, official high school and college transcripts, and an application fee. SAT I or ACT scores are not required for students with a grade point average of 2.5 or higher.

Transfer students entering in September are encouraged to be present for one of the new student orientation periods scheduled during the spring and summer prior to the fall semester validation day or to have a personal visit.

As approved by the Houghton College faculty, transfer students who have earned an A.A. or A.S. degree from an accredited community or junior college may enter as juniors. Such students must take Biblical Literature and another Bible/theology course 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 A.A.S. degree.

The college has formal articulation agreements with both Bethany Bible College in New Brunswick, Canada, The Salvation Army School For Officers' Training in Suffern, N.Y., Jamestown Community College, Jamestown, N.Y.; and Villa Maria and Trocaire colleges in Buffalo, 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.

# General Information on Annual Expenses

This section provides basic information about the expenses which students will encounter during each academic year. Specific figures are to be found in the next section, "Current Year Financial Information."

## **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 residence halls 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.

For current rates of campus rooms and on-campus housing, see the following section.

## **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 and sophomores are required to be on the 21 meals per week plan. All 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 5, 10, 14, or 21 meal plan. The contract period begins on the day preceding student validation and does not include meals during vacation periods. For current board rates, see the following section.

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

## **Tuition rates**

Houghton College charges full-time students a flat-rate tuition fee each semester which covers 12 to 18 academic hours. Part-time students pay a per-hour rate. Students taking more than 18 hours will be charged an overload rate. For the current year's tuition rates, see the following section.

## **PACE Program**

Specific figures for each year's P.A.C.E. costs appear in the following section of this catalog.

The costs for the P.A.C.E. program are 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. Under the approved monthly payment plan, administered by Academic Management Services, Inc. (AMS), the first payment is due by the beginning of the first class and the last payment no later than the end of the program. AMS charges \$50 for all monthly payment plans.

Students who are eligible for employer reimbursement may sign a promissory note for the term's expenses. This note, which bears an interest rate of six percent per annum, is due within 30 days of the end of the term if for any reason the employer fails to pay.

Tuition covers the use of textbooks, supplemental readings, software, and the computer lab, as well as the cost of student manuals and other services. Student manuals and any consumable textbooks may be kept by the student. 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. Laptops may be purchased through the college if students so choose.

### **Lesson rates in Applied Music**

In addition to the flat rate fee for tuition, students taking applied music are charged a special fee. See current fee schedule in the following section.

#### **Houghton Off-Campus Programs**

Students participating in the "Houghton in London" or "Houghton in Tanzania" programs are charged an additional fee. Students participating in the First Year Honors program pay no additional fee.

#### **Mayterm**

There is no additional 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 **registered hours**\* for Mayterm and the two semesters do not exceed the maximum allowed under the flat rate tuition charge (36 credit hours as of 1999-2000).
2. A full-time student at Houghton for one of the two semesters preceding Mayterm whose **registered hours**\* for Mayterm and the one semester do not exceed the maximum allowed under a flat rate tuition charge (18 credit hours).

\***Registered hours** are defined as those for which the student is enrolled as of the last day to add a class. This date occurs very early in the semester.

### **Student Fees**

General information of student fees appears below. Dollar figures for the current year will be found in the following section.

The **application fee** is nonrefundable and is payable at the time of applying for admission to the college.

The **enrollment deposit**, required annually of all students, reserves the student's position in the fall validation 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 insurance** is required for all students not covered under an existing policy. This insurance is optional for all others. The optional plan includes sickness and extended accident insurance (August 19-August 19 a year later). It provides sickness insurance for 12 months and extends the 9-month accident insurance to a full year. An enriched accident and health insurance plan is also available. Contact the college Health Center for details.

**Accident insurance** is available to students on an optional basis and is designed to protect the Houghton College student while at home, at school, or while traveling. 24 hours a day for a period from August 19 to June 1. Such insurance becomes operative after application of the student's health insurance. The college Health Center acts as plan administrator and can provide further information.

**Change of schedule** - levied for each schedule change form processed after the designated free-change day.

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

**Late payment** - assessed to each student who fails to pay in full the account balance (less financial aid and amounts budgeted through Academic

Management Services, Inc.) one week prior to the start of validation week.

**Late validation** - assessed to each student who fails to begin the validation process on the day assigned by the Student Accounts Office.

**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.

**Payment**

Semester charges are due two weeks prior to the start of validation week. Timely payments will reduce time spent in the validation line and will avoid a late payment fee. Checks should be made payable to Houghton College and should be sent to the Student Financial Services Office along with the validation worksheet.

A **monthly payment plan** is available through Academic Management Services, Inc. that allows fixed payments of annual college expenses over a ten-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.) Awarded financial aid from Houghton cannot be applied against the cost of such 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 in the judgment of the college 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 costs as are thereby incurred.

**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 he or she has been charged.

Refunds for **reduction of load**: A student may reduce his or her load after validation by submitting to the academic records office an approval slip with the required signatures. (Note: Students who wish to reduce their load to less than full-time [12 hours] should first check with the financial aid office to determine the effect of such a reduction on their aid eligibility. Varsity athletes should check with the college's eligibility monitor.) A course-load change which results in the final net hours falling within the 12 -18



flat-rate range will not be eligible for a refund unless the student had been enrolled for more than 18 hours.

A refund will be given for any difference in tuition charges for courses dropped:

Before classes begin .....	full
During first calendar week .....	90%
second .....	80%
third .....	80%
fourth .....	70%
fifth .....	60%
sixth .....	60%
seventh .....	50%
eighth .....	40%
ninth .....	40%
Thereafter .....	none

Refunds for withdrawal from college: A student who desires to withdraw from the college must obtain from the academic records office an application for withdrawal, and this form must be properly completed and filed with the academic records office. No refund will be made by the accounting office until the academic records office certifies that the withdrawal procedure has been properly completed.

Refunds of tuition, refundable fees, room, and board are made on a pro-rata basis up through the ninth week of the semester. No refunds are made thereafter for any reason.

Refund schedule for last date of attendance:

Before classes begin .....	full
During first calendar week .....	90%
second .....	80%
third .....	80%
fourth .....	70%
fifth .....	60%
sixth .....	60%
seventh .....	50%
eighth .....	40%
ninth .....	40%
Thereafter .....	none

**P.A.C.E.  
Refunds**

Students who officially withdraw from a term will be granted a partial refund of charges for tuition & supplies according to the following schedule:

<b>Withdrawal Date .....</b>	<b>Percentage Refund</b>
Before break of session 1 .....	100%
After break of session 1 .....	95%
After session 2 .....	90%
After session 3 (no grade received) .....	85%
After session 3 (grade or incomplete received) .....	75%
After session 4 .....	75%
After session 5 .....	75%
After session 6 .....	70%
After session 7 .....	65%
After session 8 (no grade received) .....	60%
After session 8 (grade or incomplete received) .....	50%
After session 9 .....	50%
After session 10 .....	50%
After session 11 .....	45%
After session 12 .....	40%
After session 13 (no grade received) .....	35%
After session 13 (grade or incomplete received) .....	25%
After session 14 .....	25%
After session 15 .....	25%

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After session 16 .....	20%
After session 17 .....	15%
After session 18 (no grade received) .....	10%
After session 18 (grade or incomplete received) .....	0%
After session 19 .....	0%
After session 20 .....	0%

**Refunds of Title IV funds** (Federal Pell, FSEOG, Federal Stafford Loan, unsubsidized Stafford Loan, SLS, Perkins Loan, and FPLUS). Students who qualify for a refund from Houghton College and who have received Title IV funds may be required to return part of that refund to the Title IV program or programs involved. The financial aid office follows guidelines published by the U.S. Department of Education to determine what part of the refund must be returned. (These guidelines are available upon request.) Once the financial aid office has determined how much is to be returned to the Title IV programs, it then adheres to the following college policy to determine how the refund will be distributed to the Title IV program.

**Loan programs.** Money will be refunded first to the loan programs, if the student has borrowed, with the FFELP programs given top priority and Perkins Loan next.

**Grant programs.** Remaining money will next be channeled to the Title IV grant programs, first to Federal Pell and then to FSEOG. Other federal, state, private, and institutional aid refunds will then be allocated. In no case will the amount returned to any program exceed the amount originally disbursed from the program.

**No refund will be made of the insurance fees** after validation day at the beginning of a semester.

**Changing of board plan:** Students who continue to be enrolled must secure permission from the student accounts manager before they may drop the board plan and be eligible for a refund. Changes in the board plan must be made before validation day.

**Room rent** (college-owned facilities): No refund will be made in room rent for students who continue to be enrolled but move out of a college-owned room during the semester unless the room is filled for the duration of the semester.

# Current Year 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 Information Relating to "Annual Expenses"

### 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 financial aid office will provide an estimate of these expenses as part of the financial aid package.

	<b>Liberal arts</b>
Tuition	\$15,180
Room rent	\$ 2,700
Board	\$ 2,700
Total	\$20,580

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.

### Lesson Rates in 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)	\$255
Hour lesson	(for 3-4 hours credit)	\$510
Hour-and-a-half lesson	(for 5-6 hours credit)	\$765

### Housing rates & fees

Room rates per semester are as follows:

	<u>Single</u>	<u>Double</u>	<u>Triple</u>
Residence halls	\$ 1,520	\$ 1,350	\$ 1,180
Townhouses	\$ 1,725	\$ 1,520	n/a
College-owned houses	\$ 945	\$ 945	n/a

A residence hall fee of \$10 is required when the room key is picked up. Private housing rooms vary in cost depending on location, facilities, and quality of furnishings.

### Board rate

The following are the rates for the various meal plans. See the preceding section for information on eligibility requirements for each plan.

<b>Meals per week</b>	<b>Cost per semester</b>
21	\$1350
14	\$1180
10	\$ 945
5	\$ 555

*There are no board plans available at the Buffalo campus.*

### Tuition rates

Tuition (flat rate: 12-18 hours per semester)	\$7,590.00
Tuition (per hour, 1-11 hours)	\$ 650.00
Tuition (per hour, for hours over 18)	\$ 365.00
Tuition (per hour Mayterm overload and Summer Sessions)	\$ 365.00
Additional tuition, Houghton in London Program	\$ 300.00
Fee for auditing class (if not covered under flat rate)	\$ 50.00
Tutorial fee (per hour; add to tuition fee)	\$ 200.00
Additional tuition, Houghton in Tanzania	\$ 500.00

20/Current Year Financial Information

<b>College fees</b> (subject to change)	Accident insurance coverage (9 months; optional except for intercollegiate athletics)	\$ 75
	Application	\$ 25
	Art studio lab fee	\$ 86
	Change of schedule fee	\$ 5
	Education practicum fee	\$ 59
	Enrollment deposit, entering students (annual; credited toward tuition/room)	\$ 300
	Enrollment deposit, returning students (annual; credited toward tuition/room)	\$ 100
	Horsemanship I course fee	\$ 59
	Horsemanship (all other courses with labs)	\$ 118
	Independent study extra-late fee	TBD
	Late payment fee	\$ 100
	Late validation fee	\$ 50
	Science laboratory fee (per lab)	\$ 86
	Sickness and accident coverage (12 months)	\$ 375
	Special test fee	\$ 10
	Student teaching fee	\$ 200
	Transcript fee (each copy) while a student	\$ 2
	Transcript fee (each copy) after leaving school	\$ 3
	Transcript fee (special handling: FAX, registered mail)	\$ 5
	Vehicle registration/year, depending on parking location	\$15-\$100

<b>P.A.C.E. Program</b>	Costs for the current academic year (cohorts which begin May 1, 2000, through April 30, 2001):	
	Application fee	\$ 25
	Enrollment deposit	\$ 100
	Tuition per term (12 credit hours)	\$ 4,704
	Tuition for program (36 credit hours)	\$14,112
	* OPTIONS courses	\$0 or 300
	Experiential learning credits, per credit hour awarded	\$ 35
	Experiential learning application fee	\$ 35
Graduation fee	\$ 25	

\*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.

# Scholarships, Grants and Loans

## Financial aid

Houghton College, through efforts of the financial aid office, strives to make attendance possible for every accepted student. 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, and must obtain and complete a Houghton College Financial Aid Application. The FAFSA, and the HCFAA are mailed to prospective and current students in December or available in the financial aid office after January 1. The HCFAA is also available on the Houghton website. Priority consideration is given to students whose applications are received by March 15th. **Houghton College aid may not be renewed to those applying for it after July 1st.**

All grants, scholarships, Federal Perkins loans, and institutional loans are credited to the student's account by the Bursar's Office by 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 within 21 days unless written authorization to hold excess funds is received.

## 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 on page 23**, although he may be on "academic guidance" or "academic probation" as described in the catalog 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 financial aid office, 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 2000-01 academic year, the estimated maximum Pell Grant is \$3,300.

**Federal SEOG**

The Federal Supplemental Educational Opportunity Grant is a federally-funded grant program administered by Houghton College. 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 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. For the 2000-01 academic year, the annual maximum Perkins Loan borrowing limit is \$3,000.

**Federal Stafford Loan and PLUS**

There are two loan programs administered off 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 3.1% with a cap of 8.25%. (Latest rate is 6.32%.)

The other loan is the Federal Parental Loan for Undergraduate Students (FPLUS), at a variable interest rate based on the 52-week Treasury Bill rate plus 3.1% with a cap of 9%. (Latest rate is 7.72%.) 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%.**

**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 submit proof of 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 9%. Applications may be obtained from the Financial Aid Office. Loan approval is based on certification by the Financial Aid Office and a worthy credit history for the student and co-signer.

## New York State Aid Program

### 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 2000-01 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 financial aid 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 4, or even 5 years. See "Classification" on page 39 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, extracurricular 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 27) 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 \$1,000 to \$5,000 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% 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 \$10,000 per year 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 dependent on maintaining a minimum 3.0 grade point average. Students who are not members of the National Honor Society receive a \$3,000 per year scholarship with annual renewal dependent upon meeting satisfactory academic progress. Home-schooled students who have been residents of the school districts for their final two years of high school are eligible. 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  
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 basis of academic achievement at Houghton and financial need. Specific information about the endowed scholarships may be obtained from the financial aid office. Applicants for any of these scholarships must submit a FAFSA and a Houghton College Financial Aid Application by March 15 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)  
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-Nusseey 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  
James E. Spear Memorial Scholarship  
Wesleyan Missionary Kid Scholarship  
Earle L. Wilson Scholarship  
Ziegler-Bronner Scholarship

Music Scholarships

John M. Andrews Scholarship  
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  
Robert W. Woods Memorial Scholarship  
Marilyn York Scholarship

Scholarships for Demonstrated Financial Need

George I. Alden Trust  
Barnes-Elrod Scholarship  
Benson Scholarship  
The Rev. P. Arthur Brindisi Scholarship  
Buffalo Women's Auxiliary  
Calvary Church Scholarship  
Conway Scholarship  
Howard A. and Helen C. Crosby Scholarship  
Thomas Danks Scholarship  
Davis Scholarship  
Dominguez Scholarship  
Education Assistance Limited  
Emerson Scholarship  
Rachel Davison Fee Scholarship  
Folger Family Scholarship  
Gardner Scholarship  
Gibbins 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  
Parker Scholarship  
Dr. and Mrs. Gustave Prinsell Scholarship  
Rapp 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  
Calhoun 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 Ortlip Gibson Memorial Foundation  
Hazlett Scholarship  
Joan C.V.G. Holman Scholarship: education  
Anna Houghton Daughters Scholarship  
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 Scholarship  
 Osgood Science and Academic Scholarship: physics  
 S.W. Paine Wycliffe Scholarship: linguistics  
 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.  
 United Methodist Scholarship  
 Gerald & Mildred Vander Veen Scholarship Fund: business administration  
 Valk Presbyterian Scholarship  
 Weir Student Personnel Scholarship  
 Willett Alumni scholarship  
 Lucele Hatch Wilson Scholarship: teaching  
 Fred and Floy Willmott Scholarship: United Methodist

### **Canadian Student Grant**

All new Canadian students in the 2000-01 academic year will receive a \$3,000 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 a 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 Financial Aid Office by Dec. 31st. 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 Financial Aid Office. The awards range from \$500 to \$7,600 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 United States of America 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 and the Houghton College Financial Aid Application.

*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 2000-01 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 Scholarships**

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 Grants**

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 \$1,650 grant.

This grant may be held concurrently with all other Houghton study grants.

**Alumni Association**

Houghton College alumni children and/or grandchildren entering Houghton may receive a renewable \$1,000 scholarship. The Alumni

**Scholarship** Association Board of Directors will select 20 recipients annually. Selection will be based on both merit and demonstrated financial need.

**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, internships, and the courses in applied art, applied music, and applied physical education. 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 Fund** 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:

<b>Name Loan Funds</b>	<b>Established by</b>
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
<b>*Interest-free while borrower is in school; 6 percent thereafter.</b>	

All inquiries concerning scholarships, grants, or loans should be directed to: Financial Aid Office, Houghton College, One Willard Avenue, Houghton NY 14744 (716-567-9328).

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.

### 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) and a New York State TAP 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 2000-01 academic year is \$1,467.

### 30/Scholarships, Grants and Loans

**Federal  
Stafford Loan**

The borrowing limit is \$5500 for students who qualify based on a completed FAFSA. Interest rate is variable, capped at 8.25%, based on the 91-day Treasury Bill rate plus 3.1%. 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 end of program completion. Loan applications may be obtained through the financial aid office on the main campus, the P.A.C.E. offices on the Buffalo Suburban Campus, or through your local lender.

**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 \$10,500.

### **New York State Aid Program**

**TAP**

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 NYS post-secondary institution, and must maintain satisfactory academic progress. Grants are based on the NY net taxable income of the preceding year. This program is an entitlement program. A separate TAP application is required along with the completion of the FAFSA. Awards are granted for a maximum of eight semesters.

**Houghton  
College Aid**

Limited funds are available each academic year from an endowed scholarship fund established for the benefit of Buffalo Campus students. Recommendations for the awarding of these funds may be made by the P.A.C.E. administrative staff to the scholarship committee.

# Academic Information

## Academic Personnel

### Academic Vice President and Dean of the College

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

### Associate Academic Dean

The associate academic dean serves as a true associate of the dean of the college, sharing in the full scope of the dean's responsibilities as assigned by the dean, participating alongside or in place of the dean in a wide range of tasks. Serving not in a line position between the dean and the faculty but as an extension of the contact between the faculty and the dean's office.

### 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, History and Political Science, Integrative Studies, Mathematics and Computer Science, Physical Education/Exercise Studies and Recreation/Leisure, Physics and Earth Science, Psychology and Sociology, Religion and Philosophy, and the School of Music. 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.

## First Year Introduction (FYI)

First Year Introduction (or FYI), required of all entering students, is designed to help students make a successful transition to college life. This program combines large-group presentations with small-group interaction and discussion. Sessions led by upperclass peers allow for greater involvement of new students in discussing a variety of topics, including academic skills, the meaning of liberal arts, interpersonal relationships, and life and career planning.

## Degrees Offered

Houghton College offers courses of study leading to the degrees of 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 ap-

plied 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.

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 second bachelor's degree (different from the first one) may be earned by completing 30 additional semester hours in residence and fulfilling all the requirements for the second degree, the major for which shall be in an area unrelated to the major of the first degree. A second degree is not to be confused with a double major, for which only one degree is granted.

**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**

Liberal arts courses are nonprofessional in scope, designed to give breadth and perspective. They include course offerings in Bible, English, language, science, mathematics, history, and social science, and selected courses from other academic disciplines.

The college requires 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.

**BA**

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

A student electing the religion major should plan to follow the curriculum specified by the Department of Religion and Philosophy. Copies are available in the department office.

A candidate for the BA degree who is preparing to teach selects a concentration in secondary education. (Note: see Department of Education for specifics.)

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.

**BS**

A candidate for the bachelor of science degree may select a major from business administration, communication, computer science, Bible, educational ministries, elementary education, physical education, recreation, or science. 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).

**BMus**

A candidate for the bachelor of music degree chooses a curriculum from the listings to be found in the music course description section.

**AA**

A student who earns the associate in arts degree by completing a total of 62 semester hours (plus one credit for FYI) distributed in three categories: 42 hours in level I integrative studies requirements, 15 to 16 hours in a departmental concentration, and 2 or 3 hours of electives in two different areas.

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.

**AAS** 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), of which at least 22 are in liberal arts.

This program is designed to prepare students for church work as pastors' assistants, youth leaders, and Sunday school teachers. More information is available in the academic records office.

**Degree Programs**

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
Adolescent 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</i>		
French	BA	1102
Spanish	BA	1105
<i>Department of History and Political Science</i>		
History	BA	2205
Political science	BA	2207

<i>Department of Mathematics and Computer Science</i>		
Computer Science	BS	0701
Mathematics	BA	1701
General science	BA, BS	4902
<i>School of Music</i>		
Music	BA	1004
Music Education	BMus	0832
Piano	BMus	1004
Voice	BMus	1004
Stringed Instruments	BMus	1004
Organ	BMus	1004
Brass Instruments	BMus	1004
Woodwinds	BMus	1004
Music theory/composition	BMus	1004.10
<i>Department of Physical Education/Recreation</i>		
Physical education	BS	0835
Recreation	BS	0835
<i>Department of Physics and Earth Science</i>		
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
Church ministries	BS	1510
Educational ministries	BS	1510
Humanities	BA	4903
Ministerial	BS	2301
Philosophy	BA	1509
Religion	BA	1510
<i>Interdisciplinary/Special Studies</i>		
International studies	BA	2210
Management	BS	0515
Liberal arts	AA	5649

*\*HEGIS - Higher Education General Information Survey*

**Integrative  
Studies,  
Majors, Minors**

Academic work at Houghton is organized under four heads: integrative studies, major work, minor work, and elective work. Integrative studies is a curriculum designed to serve as both a foundation and a "scaffolding," existing alongside the student's major, minor, and elective work. It is foundational in the sense that it offers essential content and skills needed for advanced study. It is "scaffolding" in that it provides a context and framework for one's entire educational program and helps one to integrate information from seemingly unrelated areas. 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.

In the major the student must complete a minimum of 24 semester hours of major credit\* unless otherwise stated under the departmental statement of major requirement. 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. Major choices are elaborated above; minors may be found on the title page of each department.

**Contract Minor:** This option is available for students wishing to specialize in an area not covered by an existing minor. It consists of 12-15 hours of courses 211 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.

**\*A major credit is a semester hour in any course numbered 200 or above unless otherwise specified.**

### **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.)

*Students who choose the comprehensive major in religion or take the ministerial program should refer to the exact program of studies as outlined by the Department of Religion and Philosophy, where deviations from the listed requirements are noted.*

## **Houghton College Integrative Studies Requirements**

The following requirements *must* be taken in the first year: **Biblical foundation: Biblical survey, college orientation, and writing.** The following requirements should be taken in the first year: physical education and research. Total hours for integrative studies equals 54.

### **Level I (42 hours)**

- (1) **College Orientation Reqmnt:** CLLS 101 FYI (First Year Introduction)
- (3) **Writing:** ENGL 101 Principles of Writing. Students with a score of 670 or higher on the verbal portion of the SAT are encouraged to take Advanced Composition (WRIT 212 or 213) in place of POW.
- (0) **Research** (This requirement is attached to several first level IS courses each semester. See Master Schedule for approved courses.)
- (3) **Literature:** ENGL 210 Lit. of Western World, or one of these:  
ENGL 203 or 204 English Literature  
ENGL 215 or 216 American Literature
- (2) **Communication:** COMM201 Fundamentals of Speech, or one of these:  
\*(3) COMM 210 Public Speaking  
\*(3) COMM 216 Organizational Communication  
\*(3) COMM 217 Argumentation and Debate  
\*(3) COMM 219 Oral Interpretation  
\*(6) INTS 110 Communication Skills through Media (fulfills level I communication, research, and writing requirements)  
[\*Hours above base count for degree but not for level I]
- (4) **Intermediate Language**  
(4,4) Beginning Language I and II may be prerequisite
- (3) **Social Science**, chosen from:  
ECON 210 Principles of Microeconomics  
POLS 101 Introduction to Politics  
SOC 101 Introduction to Sociology  
SOC 243 Cultural Anthropology
- (2,2) **History**  
HIST 101, 102 Western Civilization I and II
- (1,1) **Physical Education:**  
PHED 101 Lifetime Wellness  
PHED 102 Physical Education (or alternatives listed in the Physical Education section of this catalog)

- (3) **Mathematics**, chosen from:
    - MATH 107 Pre-Calculus
    - MATH 181 Calculus I
    - MATH 182 Calculus II
    - MATH 261 Linear Algebra
  - (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
    - CHEM 113 Elements of Biochemistry
    - CHEM 151 General Chemistry
    - CHEM 207 Nutrition
    - ESCI 101 Physical Geology
    - ESCI 102 General Astronomy
    - ESCI 212, 213 Environmental Earth Science and Lab
    - ESCI 224 Atmospheric Science
    - PHY 151 General Physics
  - (3,3) **Biblical Foundation**
    - (3) Biblical Survey: BIBL 101 Biblical Literature
    - (3) Christian Theology: THEL 209 Intro to Christianity
  - (2,2) **Philosophical Foundation**
    - (2) Knowledge and Reality: PHIL 200 Knowledge and Reality
    - (2) Values: PHIL 201 Ethics, or PHIL 225 Aesthetics
  - (3) **Music or Art**, chosen from
    - ART 131 Introduction to Visual Arts
    - ART 230 Art in Europe Since Renaissance
    - ART 231 Ancient Art History
    - ART 232 Renaissance Art History
    - ART 233 Art for Grade Teacher (only for El Ed majors)
    - ART 237 Modern Art History
    - ART 314 Art and History of Film
    - ART 322 Contemporary Art and Critical Theory
    - Two- and three-dimensional Design plus: Drawing I, Painting I, Ceramics I, Print-making I, Graphic Design I, Sculpture I, Photography I
    - MHS 113 Masterworks of Sight and Sound
    - MHS 111 Intro to Music and Listening
    - MHS 222 Intro to Film Music
    - MHS 254 Music of World Cultures
    - CHMU 216 Intro to Hymnology (ministerial program only)
    - CHMU 351 Music in Christian Worship
    - MUS 137, 143, 145, 147, 149 Ensembles
- Note: INTS 152 Honors Study in London satisfies Level I IS requirements in western civilization, philosophy, literature and fine arts.

**Level II (12 hours)**

- (3) Languages and Literature
  - Any course in the Departments of English & Communication and Foreign Languages not used in level I (including any literature courses in the Department of Foreign Languages, but not including practicums, internships, foreign languages, English grammar, and theatre workshop).
- (3) History and Social Science
  - Any course in the Departments of Business & Economics, History & Political Science, and Psychology & Sociology not used in level I (excluding SOC/PSY/POLS 309 Statistics, SOC/POLS 312 Research Methods, and all accounting and business courses).
- (3) Mathematics and Sciences
  - Any math course numbered above 155 or any other course from the departments of biology, chemistry, physics & earth science not used in level I or CSCI 155.

## (3) Advanced Bible

Any Bible course numbered BIBL 211 or above except BIBLE 241 Holy Land Tour, and BIBL 251 Bible History and Geography.

## POLICIES

**Semester  
Schedule  
Load-Limit  
Policy**

The flat-rate tuition plan at Houghton allows students to take 12 to 18 its 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 credit 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 and must meet one of the following conditions:
  1. A **senior** may apply for permission to take 18 hours if graduation depends on the completion of those hours.
  2. Any other student may apply for permission to take 18 hours if he or she has completed 30 or more credit hours at Houghton and if he or she has a **cumulative** quality point average of at least 2.75 and a minimum QPA of 2.75 for the previous semester.
- e. To take 19 credit hours, a student is expected to meet the stipulations under "d." above and 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.

Courses (including independent studies and tutorials) may not be added for credit after the first ten academic days following validation, and courses dropped between the second and eleventh week of classes will be recorded as "W". Courses discontinued within the last four weeks of the semester are assigned "F". **Courses are not officially dropped until the signed change of schedule form is in the academic records office.** The date on which a course is officially dropped is the date given on the notification sent to the instructor from the academic records office.

**Classroom  
Attendance**

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

**Examination  
Attendance**

Students absent from a test or examination may be allowed to make up the examination at the discretion of the professor. A \$10 fee may be charged for makeup tests and examinations.

**Final Exam  
Policy**

Houghton College does not have an official final exam policy. However, if a student believes the scheduling of too many exams in one day poses a problem, she or he may appeal to the Academic Dean's office.

**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 course dropped between the second and eleventh 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 for all courses taken are totalled, then divided by the number of semester 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	NA	NA	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 after the first shall be referred to the associate dean.

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.

**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 scholastic reasons may petition the Admissions 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: 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 a list of all students completing a minimum of 12 hours whose quality point averages 3.5 or above.

**President's List**

To recognize students carrying a full load who achieve the ultimate quality point average (4.0) in a semester, the President sends each student a letter of commendation.

**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 selection of 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 student indicates these intentions by submitting to a major professor a preliminary draft or outline of a special problem to which one wishes to devote particular attention. Following approval by the professor and the appropriate department chair, this proposal is submitted to the associate academic dean at least one month before the close of the junior year (approximately April 8).

A major professor acts as honors advisor. This advisor, working with the department chair, selects an honors committee, subject to the approval of the Curriculum Review Committee. This committee counsels with the candidate concerning the basic outline, makes periodic checks on the progress,



and conducts the oral examination. Note: the project must be complete 25 days before commencement, and CRC must approve the work at least 15 days before commencement.

Honors work allows 3 hours credit (usually elective) and involves study and reading which characteristically culminate in a thesis and an oral examination. The honors student formally registers for course credit at the beginning of the last semester of study. One hour of credit may be in the form of independent study.

The final decision for the awarding of credit and honors rests with the Curriculum Review Committee which will be guided by the findings of the sponsoring committee after all work is completed. A list of guidelines for honors work is available in 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. Mayterm/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 are taken from those listed in 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.

**THIS NEEDS WORK!!** Additional tuition for a tutorial course shall be charged at 75% of the current academic year's overload tuition rate. The teacher must certify that he or she has met the student for the purpose of giving instruction and directing the work for a minimum of 7.5 clock hours for each credit earned.

### **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. Visiting professors add variety to the Mayterm.

There is no additional 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 registered hours for Mayterm and the two semesters do not exceed the maximum allowed under a flat rate tuition charge (36 credit hours) as determined on the "last day to add a class" date.
2. A full-time student at Houghton for one of the two semesters preceding Mayterm whose registered hours for Mayterm and the one semester do not exceed the maximum allowed under a flat rate tuition charge (18 credit hours) as determined on the "last day to add a class" date.

A student whose Mayterm courses cause him to exceed the maximum hours will be charged the overload rate for any excess hours. Further information can be obtained by requesting a written copy of the complete Mayterm policy.

**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 accounting 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 accounting 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 finance 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.

## Pre-Professional Information

**Dual-degree engineering:** Engineering programs include many courses in science, mathematics, and humanities that may be taken at Houghton and transferred directly to the professional accredited engineering school. Some students take two years at Houghton. More choose to attend three years, during which they also meet the requirements of the senior-in-absentia program. Then, after two years at the engineering school, they receive degrees from both institutions. Professor Jeff Wolinski can provide more information about these programs.

### Pre-health professions:

**A. 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. Timothy Leonard, chairman 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 which gives details on requirements of specific schools.

**B. Medical technology:** A cooperative program has been established with the School of Medical Technology at Robert Packer Hospital in which three years at Houghton plus a twelve-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 biology department in this catalog. Additional information may be obtained from the medical technology program advisor, Dr. Timothy Leonard.

**C. Physical therapy:** Houghton prepares a student to enter Masters Programs in physical therapy through the BA degree in biology with pre-physical therapy emphasis as described in the biology section of this catalog.

**D. 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 Kenneth Boon, pre-veterinary advisor, for further information.

**Pre-law:** 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 analyti-

cal 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 (Professor Chris Stewart or Professor Michael Frank), 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 in this catalog section.

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-seminary:** 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 which 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.

## **Environmental studies**

Environmental studies 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 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 programs emphasize Christian stewardship of the Creation as well as environmental awareness and analysis.

1. The BA/BS major in biology with environmental emphasis prepares students for careers in environmental education, research and analysis, and further study in graduate programs. Field-oriented courses complement a strong biology background, including at least one course at AuSable Institute of Environmental Studies, a center for Christian environmental stewardship.

2. The Environmental Stewardship minor 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, students should contact Professor James Wolfe.

### **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 (716/567-9239).

Students needing facility adjustments must contact Jeffrey B. Spear, Vice President for Finance and 504 Coordinator (716/567-9312).

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
- 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")

- permission to attend off-campus program (use specific application)

Further information is available in the academic records office.

# 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. Possible areas of involvement include organizations that focus on ministry and service; communications and media; music ensembles; clubs that emphasize particular vocational or 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. Successful residence hall life 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 most 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 planning.

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 Houghton College 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 our townhouse apartments--seven students sharing a 4-bedroom townhouse with full kitchen facilities--or for a Community Living Option (CLO) which permits a student to privately rent a room or apartment within the village of Houghton. 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 basement 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 the promotion of 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 services 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. Physician 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 samples for short term treatment.

Health insurance coverage is mandatory. Students without proof of additional health insurance coverage will be enrolled in and billed for the illness/accident college plan. 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 (for physical or psychological reasons) 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 immunity to measles, mumps, and rubella. For individual and community protection, TB testing and up-to-date tetanus/diphtheria immunization is also required. Hepatitis B immunization is recommended; meningococcal vaccine is suggested, but not required.

### **Student Government Association**

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 student peer leaders are selected and trained to facilitate the small group process. These students work with 15 faculty mentors who serve as advisors to the first-year students.

### **Religious Services and Organizations**

Chapel meets Mondays, Wednesdays, and Fridays for a morning devotional period. The primary purpose of chapel is to focus on the Word of God as revealed in Jesus Christ. Those participating in chapel include student groups, faculty, off-campus speakers, and college choirs. The chapel service has various formats. It includes music, personal testimony, biblical exposition, and corporate worship. A number of chapels feature college heritage and current events. Chapel attendance is required as a commitment made by each student to enhance the building of "community."

Regular church attendance, either at Houghton Wesleyan Church or other local churches, is strongly encouraged.

Christian Life Emphasis Week (CLEW) is a cooperative spiritual enrichment program between Houghton College and Houghton Wesleyan Church.

At the beginning of each semester, services are held at chapel time and in the evenings. A guest speaker is invited to campus for these special meetings.

Class prayer meetings are scheduled each Tuesday evening at 6:30. During certain sessions, the entire student body meets together; in most cases, the classes meet separately under the direction of class chaplains.

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 ministry and camp counseling teams, sponsored by the Church Relations Office, are student groups who 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 college post office. 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. Copies are also available from the Safety and Security office.

**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**

The Houghton College Choir is composed of students chosen for musical competence by audition. Concerts are given each year, including an extended tour during spring break.

**Chapel Choir**

The Houghton College Chapel Choir sings for the chapel program. The music performed is representative of several centuries from high Renaissance to the present. The choir travels on an extended tour during spring break. Membership is by permission of the director.

**Chamber Singers**

The Chamber (Madrigal) Singers, a group of singers chosen by audition, performs secular and sacred compositions of all periods with an emphasis on early music.

**Opera Workshop**

The Houghton College 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 permission of the director.

**Women's Choir**

The Houghton College Women's Choir presents programs of both sacred and secular music from all periods of musical history. The choir sings regularly in chapel and accepts off-campus opportunities to sing. A full concert is presented in the spring semester. Membership is by permission.

**Handbell Choir**

The Handbell Choir performs sacred and secular literature from various periods, using standard and innovative ringing techniques. Regularly scheduled performances in Founders' Day and Commencement convocations, as well as chapel services, Christmas events, and off-campus opportu-



nities. Open to both elementary and advanced ringers, by permission of the director.

**Philharmonia**

The Houghton College Philharmonia is made up of qualified instrumentalists. Representative selections of classical, romantic, and modern literature are performed. Occasionally outside soloists are presented in concerts with the orchestra. Membership is by permission of the conductor.

**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**

The Houghton College Symphonic Winds provides students the opportunity to perform significant symphonic band literature. Concerts are performed on and off campus and the ensemble occasionally travels on an extended tour during the spring semester. Membership is open to advanced-level wind and percussion players, and is by permission of the conductor.

**Heirborne**

Six students, selected by audition, comprise the college outreach team Heirborne. 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.

**Lanthon**

*The Lanthon* 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.

**Accounting/  
Business  
Club**

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 (ACO)**

ACO is a ministry to children through students at Houghton College. The purpose is to befriend children of Allegany County and be positive role models to them; pointing them to Christ.

**Campus  
Activities Board**

CABs purpose is to provide quality activities and entertainment for the Campus with Christ-like morals and ethics.

**Cheerleading**

To be ambassadors for the college while encouraging the sports teams.

**College  
Republicans**

The main purpose of the club is to develop all college Republicans on the campus into an intelligent and cooperative Republican group. The club will also promote in every honorable way the platform and candidates of the Republican Party at all levels of government.

**Cross-Cultural Student Society**

CCSS promotes cultural awareness on campus, and aids in the cultural adjustment of international students, third culture kids, and American-born minorities.

**East Hall Council**

Hall Council is to encourage a spirit of unity among residents of the hall and to provide support, encouragement, and activities to them.

**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.

**Fellowship of Christian Athletes**

Aims "to present to athletes and coaches, and all whom they influence, the challenge and adventure of receiving Jesus Christ as Savior and Lord, serving Him in their relationships and in the fellowship of the church."

**Fireseeds**

To spread the Good News through a Bible study on campus by looking into God's word and, through a ministry program, to the surrounding area by sharing through testimony and music.

**Gadfly Society**

Aims to provide a forum for voluntary extracurricular 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**

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.

**Highland Pipe Corps**

To promote the musical and cultural aspects of Houghton College's mascot, the Highlanders.

**Impression (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 of Jesters for Jesus 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.

**Lambein Hall Council**

Hall Council supplements and compliments the residence life staff in meeting physical, intellectual, social, and spiritual needs of the residents of Lambein. The council shall seek to develop and promote quality programs in all phases of hall life; while representing residents as we seek to provide concrete solutions to problems related to student needs.

**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 Educators Club**

The Music Educators Club provides opportunities for music education majors.

**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 Houghton College through physical education, recreation, and athletics.

**Salvation Army Fellowship**

The Salvation Army Fellowship seeks to encourage spiritual growth and commitment to Christian service.

**Shenawana Hall Council** Hall Council provides Christ-centered activities that are fun and respectable, and which encourage unity among the men of this residence hall.

**Shakespeare Players** To present Shakespeare plays in a way that is entertaining and applicable to modern audiences while remaining loyal to the original presentations.

**Sigma Zeta** Threefold purpose: 1) to encourage and foster the attainment of a knowledge of the sciences; 2) to recognize the attainment of high scholarship among those fitted for membership in this society; and 3) to encourage the integration of our faith in God and the sciences.

**South Hall Council** Hall Council encourages a spirit of unity among the members of the council and residents of the hall.

**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** To promote spiritual camaraderie and physical fitness through a competitive swim club format.

**TSAO** Transfer Students Activities Organization is to help incoming transfers in adjusting to college life through activities and socialization.

**World Missions Fellowship** WMF's 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.

**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 Houghton College outreach 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 Houghton College band and vocal group consists of six students who travel to youth oriented events to lead worship. Students are selected by audition. The group travels during the summer leading worship at youth camps.

### 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 instru-

ments and interviews, students are assisted in this process. Moreover, through career counseling, 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.

**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 Houghton students desiring these services. We consider counseling to be 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."

"...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 really 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."

"...I'm depressed an awful lot. Just can't seem to get anything done."

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 than before.

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 visiting psychiatric consultant on staff. On campus one afternoon each month, this individual provides psychiatric evaluation, medication prescription and follow-up, and consultation services.

Finally, the Counseling Center will periodically provide 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 622 or 567-9622. Appointments can be made to meet with any one of the center's counselors, and all counseling information is confidential and will not be used without your consent.



*Houghton College is committed to integrating information technology into the teaching and learning process. Using an individual laptop, a fast computer network, and wide Internet pipeline, students exchange e-mail, participate in "out-of-class" discussions, submit homework and browse libraries thousands of miles away (including access to the full text of 750 journals online).*

# Buildings and Facilities

**Chapel**      **John and Charles Wesley Chapel.** This 1200-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; Ortlip mural "Redemption" in the foyer; and display area in lower level.

**Offices**      **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, dean and associate dean of the college, academic records, finance, human resources, student financial services, payroll, and administrative services.

**Fancher Hall.** A community landmark, 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, college advancement, and public relations.

**Library**      **Willard J. Houghton Library.** The library's resources include approximately 225,000 volumes, access to 1,200 journals, 12 newspapers, a special Wesleyana collection, and a music library. The library's on-line catalog, which uses Virginia Tech Library Systems software, makes the holdings of the main campus and the college's Buffalo campus libraries available to users at both campuses. Regular borrowing between the two campuses is facilitated by a shuttle system. The library is connected to such standard networks as OCLC (a national cataloging database) and on-line literature databases such as Dialog, FirstSearch, and CDP. Via the Internet, access is available to over 700 full text journals. Membership in a regional library consortium—the South Central Research Library Council—helps ensure optimum interlibrary loan service.

## Faculty Offices and Classrooms

**Academic Building.** Completed in September 1989, this 49,000 square foot, four-story building houses seven academic departments. It includes ten classrooms, six learning resource facilities, student work/study rooms, three laboratories, interactive TV link with the Buffalo campus, and 57 faculty offices. A beautiful atrium divides the classroom and office wings.

**Paine Center for Science.** This 65,000 square foot building 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 housing 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 indoor walkway to the John and Charles Wesley Chapel.

**Stevens Art Studios.** 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 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 facilities and offers network access for each bed in college-owned dormitories and townhouses. The network is available via telephone from non-college owned residences using 56k modems.

The fall of 2000 represents the fourth year in which each first year student receives a laptop computer which is used by the student for their four years at Houghton and owned 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 1300-seat grandstand, 6 tennis courts, two ski slopes with rope tows, 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.

**Campus Center**      **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 dining rooms. Basement: campus mailroom, student government, Big Al's snack shop with computer hookups 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 radio station WJSL.

**Student Housing**      **Lambein Residence Hall.** A modern, 6-story facility for 154 female students with lounge and study rooms.

**South Residence Hall.** A 4-story men's dormitory for 140 students with lounges on each floor, seminar room, individual study rooms.

**East, Gillette, and Rothenbuhler Residence Hall.** A three-section, 4-story dormitory accommodating 335 students, with lounge, recreation facilities, and a prayer chapel.

**Shenawana Residence Hall.** A 2-story men's dormitory housing 120 students with several lounges and a recreation room.

**Townhouses.** The college owns and operates 20 townhouse units, providing housing for approximately 135 juniors and seniors. The Randall and Leonard Houghton Townhouses (6 and 7 units, respectively) were constructed in 1994. The 7-unit Hazlett townhouse was completed in 1999. All units include kitchen, living room, two baths, and three to four bedrooms. Laundry facilities are available for townhouses in common areas.

**Health Center**      The Center is located in the southwest (Gillette) wing of East Hall and contains a modern treatment-laboratory room, exam rooms, reception area, and conference room.

**Maintenance Complex**      **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 8 miles from campus, is leased and operated by Houghton College in partnership with the Nature Conservancy. The 91-acre preserve 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.

# Houghton College at West Seneca

## 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 Houghton College 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 six times a year.

The West Seneca campus is the host of adult programs and facilities designed to reach community and professional audiences throughout the Western New York region. 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. All courses offered at the campus have the same course numbers, course descriptions, and content as the comparable courses offered on the main campus.

### Location

Houghton College at West Seneca is located on New York route 277 one mile south of the New York Thruway Exit 54E, at 910 Union Road, West Seneca, NY 14224. Although only a few minutes drive from urban Buffalo, the campus is located in a secluded area. 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.** Completed in 1974 and 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.** Named for the creek, 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, bearing the original name for West Seneca, 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 town houses were built from prefabricated units in the summer of 1986. 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.

**Admissions**

The main campus and the West Seneca Campus use the same admissions criteria (modified to accommodate adult-degree students). Requests for admission forms may be addressed to the Director of Admissions, Houghton College at West Seneca, 910 Union Road, West Seneca NY 14224. Phone: (716)674-6363.

**Expenses**

For information regarding tuition and other expenses at the West Seneca Campus, see the earlier section on current year financial information. Information regarding housing and food service is available from the college administration office.

**Work-Study**

A limited amount of part-time employment is available on the campus to full-time students through the college work-study program. Eligibility for this program is determined by financial need. All student employment is a form of financial aid, and all students seeking college employment must have a FAFSA on file in the financial aid office by June 30.

**Adult Degree Program (P.A.C.E.)**

Houghton College offers at the West Seneca Campus the Program for Accelerating College Education, an adult degree completion program leading to a bachelor of science degree in management. 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 near the end of the course offerings portion of this catalog, in the section titled Special Studies.

# Courses of Instruction

<b>Course Numbering System</b>	<b>100 level courses...</b>
	typically taken the freshman year do not typically give major or minor credit
	<b>200-399 level courses...</b>
	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
	<b>400 level courses...</b>
	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

<b>Course Description Codes</b>	<b>Code</b>	<b>Explanation</b>
	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
	F00	Course offered in fall, even-numbered years
	F01	Course offered in fall, odd-numbered years
	S01	Course offered in spring, odd-numbered years
	S02	Course offered in spring, even-numbered years
	F/S	Course offered in two-semester sequence
	F/S 00-01	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, which was intended to be accurate at the time of printing.

Elective courses for which demand is insufficient may be withdrawn at the discretion of the dean of the college.

For a definitive listing of course offerings and times, consult the appropriate master schedule for each semester or special session, as published by the office of academic records.

## Course Prefixes, Areas of Study, and Host Departments

Department of Art	746 flute
ART art	748 french horn
	749 harpsichord
Department of Biology	750 oboe
BIOL biology	752 organ
	753 percussion
Department of Business and Economics	754 piano
ACCT accounting	756 trombone
BADM business administration	758 trumpet
ECON economics	759 tuba
	760 viola
Department of Chemistry	762 violin
CHEM chemistry	764 voice
	768 string bass
Department of Education	770 saxophone
EDUC education	
Department of English and Communication	Department of Physical Education/ Exercise Studies and Recreation/Leisure
COMM communication	PHED physical education
ENGL English and literature	HRSM horsemanship
LING linguistics	REC recreation
WRIT writing	
Department of Foreign Languages	Department of Physics and Earth Science
FREN French	ESCI earth science
GERM German	PHYS physics
GREK Greek	
HEBR Hebrew	Department of Psychology and Sociology
LATN Latin	PSY psychology
SPAN Spanish	SOC sociology and anthropology
Department of History and Political Science	Department of Religion and Philosophy
HIST history	BIBL Bible
POLS political science	CHMN Christian ministries
	EDMN educational ministries
Department of Integrative Studies	MISS missions
INTS integrative studies	MIN ministry
	PHIL philosophy
Department of Mathematics and Computer Science	THEL theology
CSCI computer science	URMN urban ministries
MATH mathematics	Pastoral & Church Ministries Program (PCMP)
	PBIB Bible
School of Music	PEDM educational ministries
CHMU church music	PMIN ministry
CLPI class piano	PMIS missions
CLVO class voice	PSSC social science
MED music education	PTHL theology
MHS music history	
MTH theory and composition	Special Programs
MUS ensembles; instrumental and piano classes	ADC adult degree completion (P.A.C.E.)
MAP music performance	CLLS college life and leadership
740 baritone/horn/euphonium	HUM humanities
742 bassoon	INDS interdisciplinary studies
744 violoncello	Oxxx Oregon Extension
745 clarinet	

## Distribution of Hours for Academic Majors

Deg.	Major	*IS I	IS II	CREDIT HOURS			Minor & electives
				Pre-/ Co-req.	Major	Req'd Other	
BS	Accounting	40g	6k	15	46		18
BA	Adolescence (Sec) Ed	44m	9j	6	39-40	2nd major	?
BA	Art	40a	12		49**		24
BA	Biology	39h	9j	16	26		35
BS	Biology	36i	9j	36	26		18
BA	Bible	43	9c		27		46
BS	Bible	43	9c		27		46
BS	Business Adm.	40g	6k	9	34		36
BA	Chemistry	36i	9j	19	35		26
BS	Chemistry	36i	9j	19	41		20
BS	Childhood (Elem) Ed	44m	3d,j	9	47	30 hr concntrn	?
BA	Communication	41f	9c		33		42
BS	Computer Science	40a	9c		27		49
BS	Chur. Ministries	43	9c		36	+37 music	0
BS	Educ. Ministries	43	9c		36	+12 Bible	25
BS	Elementary Ed#	43	9c	18	40	21 hr concntrn	?
BA	English	40g	9c	6	30		40
BA	French	43	9c		27-33		40-46
BA	General Science	36b	9c		46		34
BS	General Science	36b	9c		46		34
BA	History	43	9c		27		46
BA	Hist. (aug.)	40a	9c		36		38
BA	Humanities	40a	3e		37		45
BA	Mathematics	40a	9c		28		48
BS	Ministerial	43	9c	15	39		19
BA	Music	43	12		36-37		33-34
BMus	Music: Perform	33	0		variable		?
BMus	Music: Educ.	33	0		variable		?
BMus	Music: Theory	33	0		variable		?
BA	Intnt'l Relations	40a	9c		38-39		37-38
BS	Management	Special program					
BA	Philosophy	43	9c		24		49
BS	Ph. Ed: Teach.	39h	6k	12	37	+14 stu. tch.	19
BS	Ph. Ed: Non-tch'g	39h	6k	8	24		18
BS	Ph. Ed: Ath Tng	39h	6k	18	38	+12 intnshp/sem	14
BS	Ph. Ed: Phys. Fit.	39h	6k	18	36	+4-12 intnshp	16-25
BA	Physics	36i	9j	8	24		48
BS	Physics	36i	9j	26	31		23
BA	Political Science	40g	12	3	27		43
BA	Psychology	39h	9c	4	31***		42
BS	Rec: Therapeu.	39h	6k	11	31		39
BS	Rec: Otdr/Camp	43	6k	8	32		36
BA	Religion	43	9c		38		34
BA	Spanish	43	9c		27		46
BA	Sociology	43	9c		24		49
BA	Writing	40g	9c		30		46
BS	Writing	40g	9c		30		46

\* does not include any hours of beginning language (elective credit)

\*\* students with a double major (art plus another academic discipline) need only 37 hours; see Art Department pages.

\*\*\* students with a double major may satisfy psychology major requirements with 25 hours.

# only for students who can complete their el ed major by Dec. 2003.

Notes a-k on next page.

Notes:

- a = 3 hours of level I included in major
- b = 7 hours of level I included in major
- c = 3 hours of level II included in major
- d = 6 hours of level II included in major
- e = 9 hours of level II included in major
- f = 2 hours of level I replaced by 3 hours in prerequisite
- g = 3 hours of level I included in prerequisites
- h = 4 hours of level I included in prerequisites
- i = 7 hours of level I included in prerequisites
- j = 3 hours of level II included in prerequisites
- k = 6 hours of level II included in prerequisites
- m = 2 hours of level I included in the major

Degree requirements:

BA, BS: 125 hours

BMus: 129 hours

**Academic  
program note**

A student's academic program normally contains six elements:

- integrative studies, level I
- integrative studies, level II
- pre/co-requisites or additional requirements
- academic major
- academic minor(s) or concentration
- electives

Each student should ask his or her academic advisor about individual program expectations in each of the six areas.

# Art

<b>Faculty</b>	Gary Baxter (chair), Scot E. Bennett, Theodore J. Murphy, John Rhett
<b>Telephone</b>	(716) 567-9400 (800) 777-2556
<b>Majors</b>	Studio Art (49 hours), Double majors in art and another discipline (37 hours)
<b>Minors</b>	Art (15 hours)
<b>IS courses</b>	<b>Level I</b> 3 hours Art or Music, chosen from: (3) ART 131 Intro to Visual Arts (3) ART 132 Art and Architecture in Context in Europe (3) ART 231 Ancient Art History (3) ART 232 Renaissance Art History (3) ART 233 Art for Grade Teacher (by permission; upper class only; counts for IS credit only for El Ed majors) (3) ART 234 Art and Architecture in Europe (3) ART 237 Modern Art History (3) ART 314 Art and History of Film (3) ART 322 Contemporary Art & Critical Theory (3) Any first-level studio course: Ceramics I, Two- or Three-dimensional Design, Drawing I, Graphic Design I, Painting I, Photography I, Printmaking I, or Sculpture I (3) Any course listed for Level I in the School of Music

## 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 field 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 (BA)

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

ART 211 Drawing I .....	3
ART 241 Two-dimensional Design .....	3
ART 242 Three-dimensional Design .....	3
ART 311 Anatomy & Figure Drawing <b>or</b>	
ART 411 Experimental Media in Drawing .....	3

Three of the following six (preferably by the end of the sophomore year):

ART 221 Painting I	
ART 245 Graphic Design I	
ART 251 Sculpture I	
ART 261 Printmaking	
ART 271 Ceramics I	
ART 281 Photography I	
Total .....	9

Four of the following five:

- ART 231 Ancient Art History
- ART 232 Renaissance Art History
- ART 234 Art and Architecture in Europe
- ART 237 Modern Art History
- ART 322 Contemporary Art & Critical Theory
- 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 Other Discipline**

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

- ART 211 Drawing I ..... 3
- ART 241 Two-dimensional Design ..... 3
- ART 242 Three-dimension Design ..... 3

Three of the following five:

- ART 231 Ancient Art History
- ART 232 Renaissance Art History
- ART 234 Art and Architecture in Europe
- ART 237 Modern Art History
- ART 322 Contemporary Art & Critical Theory
- 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

**Minor**

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.

**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 **Drawing II** (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. Prerequisite: ART 211.
- ART 411 **Drawing III** (3, S)  
Experimental media, techniques, spatial relations, and conceptual processes of drawing. Emphasis on drawing as an expressive medium independent of immediate observation. 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 2-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, S01)  
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. Prereq: 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. Prereq: ART 321.
- Photography**
- ART 281 Photography I** (3, F&S)  
Introduction to basic black and white photographic processes and design principles. Emphasis on criticism, expression, composition within context of photographic print. Technical aspects of film developing, paper printing, presentation. Survey of history of photography; comparative analysis of other media in visual arts.
- ART 381 Photography II** (3, S)  
Continued development of technical and aesthetic skills within black and white processes. Expressive possibilities of special-effect films, filters, chemical, manipulative processes.
- ART 481 Photography III** (3, OD)  
Continued exploration of advanced techniques in black and white and color processes. Individualized study will be structured by art faculty to meet needs of each student. Prerequisite: ART 381.
- 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. Prereq: ART 381.
- 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 printmaking, 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. Prereq: ART 361.
- Sculpture**
- ART 251 Sculpture I** (3, F01 & 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 3-dimensional form/space through individual creative experiences working with various sculptural media. Prereq: 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. Prereq: 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. Prereq: ART 451

<b>Special Topics</b>	<p><b>ART 395 Special Topics</b> (1-3, OD) Designed to provide opportunity for students to explore avenues within visual art not covered in other courses. Examples include furniture design, illustration, watercolor and papermaking.</p>
<b>History and Appreciation</b>	<p><b>ART 131 Introduction to the Visual Arts</b> (3, F or S) Overview of the visual arts illustrating basic principles and underlying philosophy of art. Emphasis on the contemporary.</p> <p><b>ART 132A Art and Architecture in Context in Europe</b> (3, M??) A course for the non-art student participating in the Mayterm trip to Europe. Students are given selected readings and are required to answer a number of essay questions related to the work they will be viewing. A detailed journal of the trip, a written summation of that journal and the essay questions must be submitted.</p> <p><b>ART 231 Ancient Art History</b> (3, F00) History of world art from prehistoric to the 14th century. Emphasis on function of art as visual communication of religious, political, and social concerns.</p> <p><b>ART 232 Renaissance Art History</b> (3, S02) 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.</p> <p><b>ART 233 Art for the Grade Teacher</b> (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.</p> <p><b>ART 234A Art and Architecture in Europe</b> (3, M02) Approximately 20 days studying the art and artists from Ancient Greece to the present. Credit may be taken for Intro to Visual Art, Art Major/Minor Studio or Art History.</p> <p><b>ART 237 Modern Art History</b> (3, F00) 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.</p> <p><b>ART 314 The Art and History of Film</b> (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.</p> <p><b>ART 322 Contemporary Art &amp; Critical Theory</b> (3, S01) 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.</p>
<b>Senior Concentration</b>	<p><b>ART 485 Senior Seminar and Concentration</b> (2 or 3, 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, and critique comprise the course atmosphere. Required of all art majors during the fall semester.</p> <p><b>ART 486 Senior Concentration and Thesis</b> (2 or 3, S&amp;OD) 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 art majors in the spring semester. This course is repeatable for extra studio emphasis.</p>

# Biology

**Faculty:** J. Kenneth Boon (chair), Timothy O. Leonard, Matthew K. Pelletier, James M. Wolfe  
Adjunct: Joseph King, Brian Spezialetti

**Part-time:** David Odell, David Schwert

**Telephone:** (716) 567-9280  
(800) 777-2556

**Majors:** Biology 62 hours (26 in major, 8 pre-requisites, 28 co-requisites listed below); Biology concentration in the General Science major (46 hours; 6 in math, 8 each in biology, chemistry, physics, and earth science, plus 8 more)

**Minors:** Biology (12 hrs above BIOL 151,152); Environmental Stewardship (13 hrs)

**IS courses:** **Level I:**

4 hours in science (with lab) chosen from specified courses listed under chemistry, earth science, physics, or these from biology:

BIOL 103 Fundamentals of Biology  
BIOL 105 Conservation Biology  
BIOL 151 General Biology

**Level II:**

3 hours. See integrative studies science and mathematics list in academic information in section.

**Biology (BS)**

Following 8 hours of General Biology pre-requisites, the BS biology major consists of 26 hours of major level work (courses numbered above 200) which must include the following:

BIOL 251 Genetics (4)  
BIOL 281 Introduction to Research (1)  
BIOL 482 Senior Seminar (1)

Plus an additional 28 hours of co-requisites:

CHEM 151, 152 General Chemistry (8)  
CHEM 241, 242 Organic Chemistry (8)  
PHYS 151, 152 General 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), as well as veterinary medicine or environmental science.

**Biology (BA)**

The BA biology major consists of 42 hours (26 major level, 8 pre-requisite, 8 co-requisite) and must include the following:

BIOL 251 Genetics (4)  
BIOL 281 Introduction to Research (1)  
BIOL 482 Senior Seminar (1)

Plus an additional eight hours of co-requisites:

CHEM xxx (8)

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

**Biology with Environmental Emphasis (BA)**

The BA biology major with environmental emphasis consists of 41 hours, 26 hours of major level work which must include the following:

BIOL 251 Genetics (4)  
BIOL 281 Introduction to Research (1)  
BIOL 301 Field Botany (4)  
BIOL 322 General Ecology (4)

BIOL 482 Senior Seminar (1)

BIOL xxx At least one course with zoological emphasis (4)

At least one biology course at the AuSable Institute of Environmental Studies (maximum 8 hours).

The 15 hours of co-requisites:

CHEM xxx Eight hours

ESCI 101 Physical Geology (4)

ESCI 212 Environmental Earth Science (3) (Offered on demand)

Recommended courses include the following:

SOC 309 Statistics (3)

CSCI 151 Computer Science I (3)

REC 401 National Resource Management (3)

The BA in biology with environmental emphasis prepares students for careers in environmental education, analysis, and research. Students may opt for a BS with environmental emphasis by taking Organic Chemistry, Physics, and Calculus I (see BS program).

**Biology with  
Pre-Physical  
Therapy  
Emphasis (BA)**

Following eight hours of General Biology (pre-requisite), the BA Biology with Pre-Physical Therapy emphasis consists of 26 hours in biology and physical education which 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 Seminar (1)

PHED 330 Exercise Physiology (3)

PHED 341 Kinesiology (3)

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)

This major must be accompanied by the Pre-Physical Therapy Athletic Training minor. This minor includes:

PHED 247 Recognition and Evaluation of Athletic Injuries (3)

PHED 347 Therapeutic Modalities (3)

PHED 348 Therapeutic Exercise Management of Injuries (3)

Plus 4 hours of Pre-PT field experience.

**General  
Science  
Major**

The general science major is made up of six hours in mathematics, eight hours each in biology, chemistry, physics, and earth science (which must include geology [ESCI 101], eight or more hours additional concentration in one of the four science areas in courses numbered 200 or above. 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.

**Adolescent  
Education**

Students who intend to make a career of adolescent (secondary) science teaching should take a major in one of the sciences or general science and should complete their education course requirements for certification.

**Medical  
Technology  
with a major  
in Biology (BS)**

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 approved program to complete a major in biology and a minor in chemistry. The following courses must be found among the courses 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 (8)  
 CHEM 221 Contemporary Organic Chemistry (4)  
 CHEM 277 Analytical Chemistry (4)  
 MATH 107 or 181 Pre-Calculus (3) or 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.

### **Environmental Studies**

Environmental studies at Houghton takes 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 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 8 miles of the campus, is available for environmental research.

Three 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, a center for Christian environmental stewardship. The environmental stewardship minor 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. The earth science minor provides the basics for understanding how earth systems work and how people interact with those systems. Courses include Environmental Earth Science, Physical Geology, Atmospheric Science, and independent studies in glacial morphology, oceanography, mineralogy, historical geology, etc.

For further information on the biology programs, contact Professor James Wolfe; for the earth science minor, Professor Jeff Wolinski.

### **Biology Minors**

A minor in biology requires twelve semester hours of biology courses numbered 200 or above for which 8 hours of General Biology are pre-requisite.

#### **Environmental Stewardship**

The environmental stewardship minor provides background for students who plan careers which intersect with environmental issues. The minor is supradisciplinary with courses from biology, physics and earth science, recreation, and English.

Required courses:

BIOL 214	Wildlife Biology (3) or BIOL 215
BIOL 215	Local Flora and Vegetation (3)* or BIOL 214
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 (POLS 242) or World Regional Geography (POLS 220).

Recommended courses: BIOL103 Fundamentals of Biology: Environmental Emphasis (4); an internship or independent study with environmental management is strongly recommended (1-2).

**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. Sections may emphasize either human or environmental aspects.

**BIOL 105 Conservation Biology** (4, F)

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 aquatic and terrestrial ecosystems. Three lecture, three laboratory hours each week.

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

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

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

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.*

**BIOL 211 The Ecology of Alaska** (2, 3, Summer 01)

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 \$1200.

**BIOL 214 Wildlife Biology** (3, S)

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, F02)

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. *Counts for major credit only in BA Biology degree.*

- 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. *Counts for major credit only in BA Biology.*
- BIOL 220 Biological Oceanography** (2, May02)  
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: \$200.
- BIOL 221 Plant Anatomy and Physiology** (4, S02)  
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, S02)  
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, S/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, F01)  
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 311 Invertebrate Biology** (4, S01)  
Morphology, physiology, taxonomy of invertebrate phyla, including selected parasites and their life cycles. Two lecture, six 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, S02)  
Study of forests and their interactions with physical, chemical, and biological factors in the context of ecosystems. Includes physiognomy, nutrient cycling, climatic factors, soils, fire and disturbance, succession, and harvesting and management. Lab includes forest mensuration and analysis and introduction to SILVALI. Three lecture, three laboratory each week. Prerequisites: BIOL 322 or 301.
- BIOL 361 Vertebrate Histology** (4, F01)  
Microscopic anatomy of vertebrate tissues and organs. Two lecture, six laboratory hours each week.
- BIOL 364 Animal Ecology** (4, S01)  
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. Pre-requisites: BIOL 151, 152 and 322.
- BIOL 365 Immunology** (4, F02)  
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 366 Molecular Biology** (4, F02)  
Basic molecular mechanisms of carcinogenesis, embryogenesis and cell metabolism, DNA and protein chemistry, biotechnology and its impact. Includes a survey of state-of-the-art laboratory techniques used in molecular biology. Three lectures, three laboratory hours each week. Prerequisite: CHEM 241 or Permission.
- BIOL 372 Comparative Animal Physiology** (4, S01)  
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, S01)  
Study of morphogenesis and biochemical processes involved in development, with emphasis on vertebrates. Three lecture, three laboratory hours each week. Prerequisite: BIOL 251 Recommend: BIOL
- BIOL 388 Cell Biology** (4, F01)  
The morphology, physiology and biochemistry of cells are covered from a variety of phyla. The role of cell theory in the rise of modern biology is explored to provide the student with an appreciation of the concepts that inform current approaches to organismal structure and function. Laboratory techniques include in-vitro culture, organelle isolation, and specific assays for cell identification. Three lecture and three laboratory hours per week. Prerequisite: BIOL 251. Recommended: BIOL 366.
- BIOL 195, 395, 396 Special Topics** (1-4, F&S)  
Courses designed to meet the individual needs of advanced students in such areas as animal behavior, circulation biology, electron microscopy, forest ecology, marine biology, microscopical techniques, and ornithology. Some of the courses include laboratory.
- BIOL 482 Senior Seminar** (1, S)  
Discussions on history of biological science, ethical problems in biology and health related issues, and environmental issues. Each student presents a seminar to the entire department during the fall or spring of their senior year. 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 475 Environmental Stewardship Seminar** (1, F01)  
 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 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.

### **AuSable Institute of Environmental Studies**

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 summersession 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 Professor J. Kenneth Boon.

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)

### **Professional Courses in Medical Technology**

Enrollment in the following courses is restricted to senior students who have been admitted to the School of Medical Technology at Robert Packer Hospital, Sayre, Pa.

MT-0	Blood Collection/Phlebotomy .....	No credit
MT-1	Urinalysis and Renal Function .....	3
MT-2	Hematology and Coagulation .....	5
MT-3	Clinical Chemistry .....	6
MT-4	Immunohematology/Blood Banking .....	3
MT-5	Serology and Immunology .....	3
MT-6	Parasitology .....	1.5
MT-7	Bacteriology/Virology .....	7
MT-8	Mycology .....	1.5
MT-9	Management/Education Practicum .....	1
MT-10	Independent Seminar .....	1

# Business and Economics

**Faculty** Kenneth J. Bates (chair), Robert A. Black, Jonathan E. Bradshaw, Richard A. Halberg, Jeffrey R. Moore, Rhea R. Reed (on leave)

**Telephone** (716) 567-9440  
(800) 777-2556

**Majors** Accounting (46 hours in the major; 15 in pre/co-requisites), Business Administration (34 hours in the major; 9 in pre/co-requisites)

**Minors** Accounting (18 hours), Business Administration (18 hours), Economics (15 hours)

**IS courses** **Level I**

ECON 210 Principles of Microeconomics (for social science requirement)

**Level II**

ECON 210 or 211 Principles of Economics (3)

BADM 155 Computer Applications & Issues (for math or science requirement)

**Accounting Major**

The accounting major is a registered accounting curriculum in New York State and meets all of the educational requirements for certification in the accounting profession.

Required courses for the major but without major credit:

Accounting Principles I & II (ACCT 211, 212) .....	6
Principles of Economics (ECON 210, 211) .....	6
Computer Applications and Issues (BADM 155) .....	3

15

Major required courses:

Business Law I & II (BADM 213, 214) .....	6
Financial Management (BADM 406) .....	3
Investment Management (BADM 302) .....	3
Statistics I (BADM 309) .....	3
Intermediate Accounting I & II (ACCT 311, 312) .....	6
Cost Accounting (ACCT 314) .....	3
Auditing (ACCT 315) .....	3
Federal Income Tax (ACCT 316) .....	3
Accounting Information Systems (ACCT 317) .....	3
Advanced Accounting (ACCT 418) .....	3
Principles of Management (BADM 218) .....	3
Marketing Principles (BADM 218) .....	3
Senior Seminar (BADM 481) .....	1

43

Major elective credit courses; choose 3 hours

Business Communication (BADM 301) .....	3
Human Resources Management (BADM 314) .....	3
Business Strategy & Policy (BADM 421) .....	3
Internship in Accounting (ACCT 417) .....	6
Honors in Business (BADM 496) .....	3
Economics courses numbered 200 or above .....	3

3

hours in major

61

**Minor**

An accounting minor consists of 15 hrs 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.

- ACCT 211 Accounting Principles I** (3, F&S)  
Basic theory and practices of financial accounting for proprietorships and partnerships.
- ACCT 212 Accounting Principles II** (3, F&S)  
Accounting for corporations, cost accounting and statement analysis. Prerequisite: ACCT 211.
- ACCT 311 Intermediate Accounting I** (3,F)  
Measurements and valuation of assets, liabilities, and equities. Accounting principles and standards. Prerequisite: ACCT 212.
- ACCT 312 Intermediate Accounting II** (3,S)  
Special problems in accounting. Accounting for contingencies, bonds, pensions, leases, consolidations. Financial position and statement analysis. Prerequisite: ACCT 311.
- ACCT 314 Cost Accounting** (3,S)  
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,S)  
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,F)  
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.
- ACCT 317 Accounting Information Systems** (3,S)  
Design, maintenance, monitoring of computerized accounting systems. Includes systems and audit concepts. Prerequisites: BADM 108, 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 418 Advanced Accounting** (3,S)  
Addresses complex issues in accounting including business combinations, consolidated statements, partnerships, government and not-for-profit organizations, foreign operations, and other current topics in the field. Prerequisite: ACCT 312.
- 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)  
Selected topics.

**Business Administration**

The student majoring in business administration receives the BS degree.

**Major** A major in business administration requires the following:

Courses for major but without major credit:

Computer Applications and Issues (BADM 155) .....	3
Principles of Economics (ECON 210, 211) .....	6
	---9

Major core courses:

Accounting Principles (ACCT 211, 212) .....	6
Business Law I (BADM 213) .....	3
Principles of Management (BADM 212) .....	3
Marketing Principles (BADM 218) .....	3
Financial Management (BADM 406) .....	3
Statistics (BADM 309) .....	3
Business Strategy and Policy (BADM 417) .....	3
Seminar (BADM 481) .....	1
	---25

Elective major credit courses:

Nine hours in business, accounting, or economics courses numbered 200 or above	---
	9

Total: ---43

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

Management:

- Business Communication (BADM 301) **or**
- ST: Leadership Development (BADM 395)
- Human Resources Management (BADM 314)

Marketing:

- Advertising & Public Relations (BADM 312)
- Marketing Research (BADM 319) **or**
- Business Communication (BADM 301)

Finance:

- Investment Management (BADM 302)
- Money, Banking, & Government (ECON 301)

Economics:

- Managerial Economics (ECON 315)
- Economics Elective

International Business:

- International Business (BADM 313)
- and an approved cross-cultural experience **or**
- International Business Institute (IBI 331, 339, 350, 390)

**Minor** A minor in business administration requires the following courses in addition to Computer Applications and Issues (BADM 155) and Principles of Economics (ECON 210 or 211).

Required:

Accounting Principles (ACCT 211) .....	3
Principles of Management (BADM 212) .....	3
An additional 6 hours in business courses numbered 200 or above ...	6
	---12

**BADM 155 Computer Applications and Issues** (3, F&S)  
 Introduction to micro computer applications: spreadsheet and database software, and webpage creation and publishing. Student teams work on real business computing projects. Discussion of current issues in computing. (Counts for upper-level Math/Science integrative studies.)

- ACCT 211 **Accounting Principles I** (3, F&S)  
(See description under accounting section.)
- ACCT 212 **Accounting Principles II** (3, F&S)  
(See description under accounting section.)
- BADM 212 **Principles of Management (CDRP, see p. 101)** (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, S01)  
Basic law covering forms of business organization, sales, estates, bankruptcy. Prerequisite: BADM 213
- BADM 218 **Marketing Principles (CDRP, see p. 101)** (3, S)  
Factors in product development, pricing, distribution, and promotion of consumer and industrial goods.
- BADM 220 **Advanced Computer Applications** (3, S)  
Advanced spreadsheet word processing and database software topics, management of DOS and Windows environments. Prerequisite: CSCI/BADM 155.
- BADM 301 **Business Communication** (3, OD)  
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, S)  
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.
- BADM 312 **Advertising & Public Relations** (3, F)  
Prerequisite: BADM 218 (See description under communication.)
- BADM 313 **International Business (CDRP, see p. 101)** (3, F00)  
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 p.101)** (3, S)  
Personnel functions, relationships, employee selection, testing, training, and incentives. Prerequisite: BADM 212.
- BADM 319 **Marketing Research** (3, S)  
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 406 Financial Management** (3, F)  
Financial analysis, budmentgeting, working capital management, capital budgeting, sources of financing, cost of capital. Prerequisites: ECON 110; ACCT 211, 212 or permission of instructor.
- BADM 417 Business Strategy & Policy (CDRP, see p. 101)** (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.)
- 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 481 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)

**Economics  
(minor)**

- Economic theory provides essential background for careers in business, law, politics, teaching, and all areas of private and public administration. A minor in economics consists of Principles of Economics (ECON 210, 211) plus an additional 9 hours in economics courses numbered 200 or above.
- ECON 102 Economics for Consumers** (2, OD)  
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, and 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. Prerequisite: ECON 210.
- ECON 212 International Economics** (3, F01)  
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, F00)  
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. Prereq.: ECON 210 and 211.
- ECON 302 History of Economic Thought** (3, OD)  
 Development of modern economic thought in Europe and United States. Required for a minor. 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.) Prereq.: 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 395, 495 Special Topics** (3, OD)  
 Group study of selected topics. Prerequisite: ECON 210 and 211.
- ECON 191,- 2; 291, -2; 391, -2; 491, -2 Independent Study** (1, 2 or 3)

**International  
 Business  
 Institute**

Houghton College is affiliated with the International Business Institute of King College in Bristol, TN. The eleven-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.

- 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.

# Chemistry

- Faculty** Irmgard K. Howard (chair), Larry W. Christensen, Bernard J. Piersma
- Adjunct** Wilson Greatbatch
- Telephone** (716) 567-9280  
(800) 777-2556
- Majors** Chemistry (BA: 35 hours plus 19 co-requisites; BS: 41 hours plus 19 co-requisite lists); chemistry concentration in General Science major (46 hours; see exact requirements below)
- Minor** Chemistry (12 hours beyond CHEM 152)

**IS courses** **Level I:**

4 hours in science (with lab) chosen from specified courses listed under biology, earth science, physics, or these from chemistry:  
CHEM 207 Nutrition with  
CHEM 208 Nutrition Laboratory  
CHEM 151 General Chemistry I

**Level II:**

3 hours—see integrative studies science and mathematics list in academic information section.

**BS** The major in chemistry designed for preparation for professional employment or for graduate work culminates in the bachelor of science in chemistry. The following chemistry courses are required:

CHEM 151, 152	General Chemistry (8)
CHEM 241, 241	Organic Chemistry (8)
CHEM 277	Analytical Chemistry (4)
CHEM 278	Chemical Instrumentation (4)
CHEM 286	Special Topics (2)
CHEM 361, 362	Physical Chemistry (4, 4)
CHEM 482	Chemistry Seminar (1)

6 additional hours in chemistry must be selected from courses numbered above 300, excluding chemistry projects, independent study, or 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:**

CSCI 151	Computer Science I	3
MATH 321	Multivariate Calculus	3

**BA** The major in chemistry designed for preparation for medical school or for secondary teaching culminates in the bachelor of arts in chemistry. The following chemistry courses are required: CHEM 151, 152, 241, 242, 277, 278, 286, 361, 362, 482. (See course-name listing).

**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

**General  
Science  
Major**

The general science major is made up of six hours in mathematics, eight hours each in biology, chemistry, physics, and earth science (which must include geology [ESCI 101]), eight or more hours additional concentration in one of the four science areas in courses numbered 200 or above. 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.

**Adolescence  
(Secondary)  
Education**

Students who intend to make a career of secondary science teaching should take a major in one of the sciences or general science and should complete their education course requirements for certification.

**Minor**

The minor in chemistry shall consist of a minimum of 12 semester hours in chemistry numbered 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).

**CHEM 113 Elements of Biochemistry** (4, F)

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, S01)

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.) Prereq: 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 or CHEM 221.
- CHEM 278 Chemical Instrumentation** (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. Two lecture, eight 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 332 Biochemistry** (3, S01)  
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, S01)  
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, F00)  
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 281, 282, 381, 382 Chemistry Projects** (1 or 2, F&S)  
Selected problems in experimental chemistry to acquaint the student with current literature coupled with laboratory techniques. Prerequisite: permission.
- CHEM 453 Advanced Inorganic Chemistry** (3, F99)  
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 482 Chemistry Seminar** (1, S)  
Journal reports and discussion of recent developments in chemistry. Required of all chemistry majors.
- CHEM 391, 392; 491, 492 Independent Study** (1-3, Arr)
- CHEM 496 Honors in Chemistry** (3)

# Education

<b>Faculty</b>	Constance R. Finney (chair), Darlene G. Bressler, Carol A. Brown, Susan G. Martin, Charles E. Massey, Claity P. Massey, James E. Schwartz, Daniel P. Woolsey
<b>Telephone</b>	(716) 567-9670 (800) 777-2556
<b>Major</b>	Childhood (Elementary) Education (59 hours; 9 in pre/co-requisites and 50 in major field); Adolescence (Secondary) Education (45-46 hours; 6 in pre/co-requisites and 39-40 in major).
<b>Minor</b>	Education (12 hours)
<b>IS courses</b>	<b>Level I</b> 3 hours of philosophy <i>for Education majors only</i> History & Philosophy of Education (replaces Knowledge & Reality) <b>Level II</b> 3 hours of English: Children's Literature
<b>Teacher Education</b>	For admission to the <b>teacher education program</b> , a student must: <ol style="list-style-type: none"><li>1. complete the application to enter the teacher education program</li><li>2. present a writing sample which demonstrates the ability to communicate in writing,</li><li>3. present a cumulative grade point average of 2.40 or above</li><li>4. receive formal approval by the Teacher Education Committee.</li></ol> For entry into <b>upper level education courses</b> (300 or above), a student must: <ol style="list-style-type: none"><li>1. have taken EDUC 201 Instructional Psychology and Research, or EDUC 240 Teaching in Urban America and, if the student is a childhood education major, EDUC 114 Math for Elementary Teachers</li><li>2. present a cumulative grade point average of 2.40 or above</li><li>3. complete the Upper Level Course Approval form and bring it to the Education Department advisor for course selection.</li></ol> To be approved for <b>student teaching</b> , a student must: <ol style="list-style-type: none"><li>1. complete the application to student teach (to be submitted in the first two weeks of the semester preceding student teaching)</li><li>2. submit a portfolio of educational progress, including but not limited to a portion of a videotaped lesson and several sample lesson plans</li><li>3. present a cumulative grade point average of 2.50 or above</li></ol> To be approved for <b>overseas student teaching</b> , the student will complete the first two requirements for student teaching approval noted above, as well as the following: <ol style="list-style-type: none"><li>1. present a cumulative grade point average of 2.60</li><li>2. submit an essay explaining why they are qualified for the experience and how they would benefit through the experience</li><li>3. provide a recommendation letter from the academic advisor.</li></ol> <p><b>Policy notes:</b> Recognizing the importance of academic responsibility during teacher training and the challenges inherent in the teaching profession, the Teacher Education Committee has established a 2.50 cumulative grade point average as the necessary requirement for approval to student teach. However, there are rare occasions when students are slightly below the 2.50 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 Director of Student Teacher Placement, the student may prepare a Letter of Appeal and the case will be considered by the Teacher Education Committee.</p>

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

Any student who wishes a student teaching placement beyond that normally provided during the student teaching semester must present such request in a timely manner to the Teacher Education Committee.

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

### **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 training 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 day 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 **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 414 and 485.

### **New York Teacher Certification**

Initial Certification in New York State may be obtained by completing one of the following programs, and by completing 3 of the 4 sections of the New York State Teacher Certification Exam (NYSTCE). These sections include the LAST, ATS-W, and CST.

**Note: these programs apply only to those graduating after January 2004. Those graduating prior to this time should follow guidelines found in Houghton's 1999-2000 catalog, available in the Education Department Chair's Office.**

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

EDUC 114 .....	6 contact hrs.
EDUC 201 .....	15 contact hrs.
EDUC 221 .....	8 contact hrs.
EDUC 240 .....	60 contact hrs.
EDUC 328/329 .....	6 contact hrs.
EDUC 341 .....	6 contact hrs.
EDUC 342 .....	6 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 201 .....	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.

## **Childhood Certification**

### **Program Leading to grades 1-6 Certification**

Students majoring in childhood education complete the following program in addition to 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 210 American History Survey .....	
POLS 222 American Political System .....	

#### **Childhood Education Major**

EDUC 114 Math for Elementary Teachers .....	3
EDUC 201 Instructional Psychology & Research .....	3
EDUC 217 Philosophy & History of Education .....	3
EDUC 221 Children's Literature .....	3
EDUC 226 Multimedia Technologies .....	2
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 414	Educating Exceptional Children .....	3
EDUC 485	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 210	Public Speaking .....	3
Three of the following	including 1 WRIT and 1 COMM .....	9
COMM 219	Oral Interpretation	
COMM 245	Theater Arts	
COMM 320	Special Topics: Reader's Theater	
COMM 415	Seminar in Ineterpersonal Comm	
WRIT 211, 212, or 213	Advanced Composition	
WRIT 306	Creative Non-Fiction	

**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	
FREN 302	French Con & Reading II,	
FREN 305	French Phonetics	

*Culture & Literature:* 6 hours

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

*Linguistics:* 6 hours

Two of the following:	.....	6
LING 220	Intro Linguistics	
LING 312	Sociolinguistics	
LING 395	TESOL	
COMM 325	Cross-cultural Communication	

**3. Intercultural Studies (31 hours)**

*Cultural Studies:* 16 hours

SOC 243	Cultural Anthropology .....	3
HIST 101,102	Western Culture .....	4
COMM 325	Cross-cultural Communication .....	3
One of the following:	.....	3
SOC 330	Culture & Family	
SOC 361	Race & Ethnicity	
One of the following:	.....	3
LING 220	Intro Linguistics	
MISS 222	Modern Missions	
URMN 211	Urban Ministry	

*Global & Community Awareness:* 15 hours

POLS 220	World Regional Geography .....	3
MHS 254	Music of World Cultures .....	3
One of the following:	.....	3
PHIL 321	World Religions	
ENGL 415	World Literature	
SOC 293	East African Cultures	
Exactly 6 hours (4 + 2, or 3 + 3) from the following:	.....	6
INDS 211	Intercultural Trans & Adjust	
INDS 311	Intercultural Experience	
INCL/MISS 231	Global Relief & Devt.	
INCL/POLS 320	Community Org & Dev	
INCL/ POLS 336	Gov & Pol in Dev Countries	

URMN 250 Evang & Social Action in Urban Context  
 SOC 295 Special Topics: Urban Policy

#### 4. Mathematics (30 hours)

**Mathematics:** 17 hours

MATH 107	Pre-Calculus .....	3
MATH 181,182	Calculus I & II .....	8
MATH 251	Modern Geometries .....	3
EDUC 114	Math for Elementary Teachers .....	3

**Mathematics & Computer Science:** 13 hours

Choose from among the following courses: .....	13
CSCI 211	Programming I
CSCI 218	Programming II
MATH 190	Math Apps & Issues
MATH 231	Probability
MATH 232	Math Stats
MATH 241	Differential Equations
MATH 261	Linear Algebra
MATH 321	Multivariate Calc
MATH 422	Advanced Calc
MATH 452	Point Set Topology
MATH 462	Algebra I
MATH 471	Complex Analysis

#### 5. Mathematics & Science (30 hours)

**Mathematics:** at least 12 hours

MATH 107	Pre-Calculus .....	3
EDUC 114	Math for Elementary Teachers .....	3

At least 6 hours from among the following: .....	6+
MATH 181	Calc I
MATH 182	Calc II
MATH 190	Math Apps & Issues
CSCI 211	Programming I
CSCI 218	Programming II

**Science:** at least 14 hours

Choose from among 2 or more of the following areas: BIOL, CHEM, and PHYS/ESCI

BIOL 103	Fund. of Biology
BIOL 105	Conservation Biology
BIOL 214	Wildlife Biology
BIOL 215	Local Flora
BIOL 217/218	Human Anatomy & Physiology
CHEM 121	Impact of Science on Society
CHEM 207	Intro Nutrition
CHEM 208	Intro Nutrition Lab
PHYS 211	Energy: Fire to Fusion
ESCI 101	Physical Geology
ESCI 102	General Astronomy
ESCI 212/213	Env. Earth Science

*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 2 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
PHYS 211	Energy: Fire to Fusion .....	3
ESCI 101	Physical Geology .....	4
ESCI 102	General Astronomy .....	4

ESCI 212	Environmental Earth Science .....	3
ESCI 214	Environmental Earth Science Lab .....	1

**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	2 electives, numbered above 220 .....	6
HIST	1 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 Psychology .....	3
And one of the following: .....		<i>Writing/Communication: 15 hours</i> 3
ECON 210	Principles of Microeconomics	
SOC 101	Principles of Sociology	
SOC 243	Cultural Anthropology	

**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: .....		6
SPAN 301	Spanish Con & Reading I	
SPAN 302	Spanish Con & Reading II	
SPAN 305	Spanish Phonetics	

*Culture & Literature: 6 hours*

Two of the following: .....		6
One Spanish Civ & Culture course (300 or above)		
One Spanish Lit course (400 level)		
One Mayterm in a Spanish speaking culture		

*Linguistics: 6 hours*

Two of the following: .....		6
LING 220	Intro Linguistics	
LING 312	Sociolinguistics	
LING 395	TESOL	
COMM 325	Cross-cultural Communication	

**Adolescence  
Education**

**Program Leading to 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 201	Instructional Psychology & Research .....	3
EDUC 217	Philosophy & History of Education .....	3
EDUC223	Adolescent Literature .....	3
	or EDUC 330 TESOL .....	3
EDUC 226	Multimedia Technologies .....	1 or 2
EDUC 240	Teaching in Urban America .....	3
EDUC 313	Language & Literacy in the Content Areas .....	3
EDUC 33x	Secondary Teaching: Content Methods .....	2
	332 English Methods	
	333 Foreign Language Methods	



334 Math Methods	
335 Science Methods	
336 Social Studies Methods	
EDUC 338 Curriculum & Assessment in Secondary Classrooms .....	4
EDUC 350 Instructional Environments for Diverse Learners .....	3
EDUC 409 Secondary Student Teaching I .....	6
EDUC 410 Secondary Student Teaching II .....	5
EDUC 411 Seminar in Secondary Teaching .....	3

## Education minor

An education minor may be chosen by students who wish to broaden their understanding of the educational process yet are not seeking certification. The minor requires 12 semester hours as follows:

Choose 3 of the following:

EDUC 201 Instructional Psychology & Research .....	3
EDUC 217 Philosophy & History of Education .....	3
EDUC 240 Teaching in Urban America .....	3
EDUC 350 Instructional Environments for Diverse Learners .....	3

Choose one of the following:

EDUC 114 Math for Elementary Teachers .....	3
EDUC 221 Children's Literature .....	3
EDUC 223 Adolescent Literature .....	3
EDUC 330 Teaching English to Speakers of Other Languages .....	3

## Courses

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 201 **Instructional Psychology and Research** (3, F&S, begins F01)

The individual in the teaching/learning process. Focus on learning models and theories, cognition, individual differences, motivation, instructional psychology and classroom research models. Prerequisite: PSY 111.

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

*(formerly Foundations of Education)*

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 219 **Educational Psychology** (3, F&S; OD after S01)

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

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

Offers a survey of various genre in literature for pre-school 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, S02)

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)  
*(formerly Multimedia and Distance Learning Technologies)*

Introduction to (1) design and production of multimedia presentations 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 2 credits; those with ns adolescence concentration may opt for either 1 or 2 credits.

**EDUC 240 Teaching in Urban America** (3, M)  
*(formerly Teaching in Contemporary America)*

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)  
*(formerly Reading in the Content Area)*

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&S; begins 02/03)

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 316 & EDUC 320. EDUC 342 must accompany either EDUC 314 or EDUC 315. Prerequisites: EDUC 201 and EDUC 217.**

**EDUC 315 Elementary Practicum II** (1,F&S; begins F02)

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 317. Prerequisites EDUC 314, EDUC 316, & EDUC 320.**

**EDUC 316 Collaboration of School, Home, and Community I** (1, F&S; begins F02)

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. **Taken concurrently with EDUC 314 & 320.**

**EDUC 317 Collaboration of School, Home, and Community II** (1, F&S; begins F02)

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. **Taken concurrently with EDUC 315. Prerequisite EDUC 314 and EDUC 316.**

**EDUC 320 Curriculum and Assessment in Elementary Classroom** (3, F&S)  
*(formerly Art & Science of Elementary Teaching)*

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 & EDUC 316.**

**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 201, EDUC 217, and EDUC 221, or permission of instructor.

**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.

**EDUC 330 Teaching English to Speakers of Other Languages (TESOL)** (3, S)

Students will review the difference between first and second language acquisition. Examines some of the major linguistic patterns and structures of English which are difficult for speakers of languages other than English. Reviews second language teaching methodologies.

**EDUC 33X Secondary Teaching: Content Methods** (2, S)

Adolescent Education majors register for the appropriate content area methods course concurrent with EDUC 338 Curriculum & Assessment in Secondary Classrooms. 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.

EDUC 332 **English Methods**

EDUC 333 **Foreign Language Methods**

EDUC 334 **Math Methods**

EDUC 335 **Science Methods**

EDUC 336 **Social Studies Methods**

**EDUC 338 Curriculum & Assessment in Secondary Classrooms** (4, S)

*(formerly Art & Science of Secondary Teaching)*

Examination and analysis of the strategies and dynamics of teaching and learning in adolescent classroom. Students will spend 20 class hours in a secondary school practicum experience. **Taken concurrent with EDUC 33x Secondary Teaching Methods.** **Prerequisite:** EDUC 201 and EDUC 217.

**EDUC341 Teaching Elem Social Studies and Language Arts** (2,F&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. Our emphasis 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 201, EDUC 217, and EDUC 221, or permission of instructor.

**EDUC 342 Teaching Elementary Mathematics and Science** (3, F&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 201 and EDUC 217.

**EDUC 350 Instructional Environments for Diverse Learners** (3, F&S;  
begins F01)

Overview of the history and legislation related to exceptional learners, along with the CSE and referral processes. Examines the scope of disabilities, designing supportive learning environments and transitional planning. Considers means for integrating classroom modifications and safety issues that address special needs across the content areas.

**Includes classroom experiences related to exceptional learners.** Prerequisite: EDUC 201 and EDUC 217.

- EDUC 405 **Elementary Student Teaching K-6** (first placement) 6
- EDUC 407 **Elementary Student Teaching K-6** (second placement) 6  
A full semester of student teaching, either fall or spring. Two placements for each student. K-6 placements in primary and intermediate grades. Student must register for EDUC 411 concurrently. **(See department policy on "Employment and Activities While Student Teaching")**
- EDUC 408 **Childhood Student Teaching** (10, F&S; begins F03)  
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 EDUC 414 and EDUC 485. Students must also register for EDUC 414 & EDUC 485. (See department policy on "Employment and Activities While Student Teaching.")**
- EDUC 409 **Secondary Student Teaching I** (6, F&S)  
Minimum 7-week placement in either grades 7-9 or grades 10-12 in the appropriate content area. The experience will include a minimum of 2 weeks with full teaching load responsibilities. **Prerequisite: EDUC 33x (Secondary Teaching Methods), EDUC 338, and EDUC 313. Taken concurrent with EDUC 410 & EDUC 411.**
- EDUC 410 **Secondary Student Teaching II** (6, F&S)  
Minimum 6-week placement in either grades 7-9 or grades 10-12 in the appropriate content area. The experience will include a minimum of 2 weeks with full teaching load responsibilities. **Prerequisite: EDUC 33x (Secondary Teaching Methods), EDUC 338, and EDUC 313. Taken concurrent with EDUC 409 & EDUC 411.**
- EDUC 411 **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 concurrent with EDUC 410 & EDUC 411.**
- EDUC 414 **Educating Exceptional Children** (3, F & S; begins F'03)  
Examines the historical/legal context for providing services for exceptional children. 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. **Taken concurrently with EDUC 408 and EDUC 485.**
- EDUC 485 **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. **Students must also register for EDUC 414 & 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)

**Post-Baccalaureate Teacher Certification Program**

All participants in the post-baccalaureate certification program must meet all requirements for admission as a student at Houghton College (see pp 11-13 in the catalog). Admission to the college must be accompanied by admission to both the teacher education program, which requires a 2.40 GPA; and the student teaching program, which requires a 2.5 GPA.

**K-6**

A New York K-6 provisional certificate may be issued to a student in the post-baccalaureate program who meets these criteria:

1. a baccalaureate degree from a regionally accredited institution of higher education or from an institution authorized by the Board of Regents to confer degrees and whose programs are registered by the State Department of Education. The baccalaureate degree must include:
  - a. successful completion of at least 6 semester hours of college-level credit each in: English, mathematics, science, and social studies;
  - b. a satisfactory concentration of 36 hours of college-level credit in one of the liberal arts and sciences;
  - c. one year of college-level study (or its equivalent) of a language other than English;
2. a concentration of 30 semester hours in professional education, including 6 semester hours of study in the teaching of reading;
3. college-supervised student teaching at both the lower (PreK-3) and upper (4-6) elementary grades for one full semester;
4. satisfactory performance on the liberal arts and sciences portion of the New York State Teacher Certification Examinations and on the written assessment of teaching skills portion of the New York State Teacher Examination.

*Note: students must complete at least one full semester of coursework at Houghton College before participating in the student teaching semester.*

**7-12**

A New York 7-12 provisional certificate may be issued to a student in the post-baccalaureate program who meets these criteria:

1. a baccalaureate degree from a regionally accredited institution of higher education or from an institution authorized by the Board of Regents to confer degrees and whose programs are registered by the State Department of Education. The baccalaureate degree must include:
  - a. a satisfactory concentration of 36 semester hours of college-level credit in the area in which certification is sought;
  - b. one year of college-level study (or its equivalent) of a language other than English;
2. a concentration of 18 semester hours in professional education;
3. a college-supervised student teaching experience in both the middle level and high school grades for one full semester;
4. evidence of having achieved a satisfactory level of performance on the liberal arts and sciences portion of the New York State Teacher Certification Examinations and on the written assessment of teaching skills portion of the New York State Teacher Examination.

*Note: students must complete at least one full semester of coursework at Houghton College before participating in the student teaching semester.*

# English and Communication

**Faculty** Douglas M. Gaerte, (chair), Bruce N. Brenneman, Charles E. Bressler, John R. Leax, Roger J. Rozendal, James F. Wardwell, Linda Mills Woolsey, Stephen Woolsey, James A. Zoller

**Telephone** (716) 567-9462  
(800) 777-2556

**Majors** Communication (33 hours), English (30 hours; 6 in pre/co-requisite), Writing (30 hours)

**Minors** Communication (15 hours), Communication with theater emphasis (15 hours), Literature (18 hours), Writing (12 hours).

**IS courses** **Level I hours:**

3 ENGL 101 Principles of Writing

(**Note:** Students with an **SAT verbal score of 670 or higher** take Advanced Composition: Rhetorical Patterns (WRIT 212) or Advanced Composition: Writing about Literature (WRIT 213)

3 ENGL 201 Literature of the Western World, or one of:

(3) ENGL 203 or 204, English Literature

(3) ENGL 215 or 216, American Literature

2 COMM 201 Fundamentals of Speech or one of:

(3) COMM 210 Public Speaking

(3) COMM 216 Organizational Communication

(**Note: Students who plan to teach English in New York State must take Public Speaking COMM 210 instead of Fundamentals of Speech COMM 201. Students who plan to teach any other subject are advised to take Public Speaking.**)

**Level II:**

3 hours in any course in the department not taken in level I.

**Communication**

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.

**Major**

The communication major consists of 33 hours, including 18 hours of required courses: Introduction to Communication Theory (COMM 205), Public Speaking (COMM 210), (which also satisfies the integrative studies communication requirement), Advanced Composition: Rhetorical Patterns (WRIT 212), Rhetorical Strategy (COMM 316), Seminar in Interpersonal Communication (COMM 415), and Seminar in Public Communication (COMM 417). An additional 15 hours of electives are selected from the following: Organizational Communication (COMM 216), Argumentation and Debate (COMM 217), Introduction to Broadcasting (COMM 218), Oral Interpretation (COMM 219), Theater Arts (COMM 245), Television Production I, II (COMM 251, 351), Advertising and Public Relations (COMM 312), Special Topics in Communication (COMM 320), Cross-Cultural Communication (COMM 325), Broadcast Journalism (COMM 350), Independent Study in Communication (COMM 291, 391 or 491), Periodical Writing (WRIT 303), Creative Nonfiction: Writing about Nature, Landscape, and the Environment (WRIT 306), Creative Nonfiction: Writing about Spiritual Experience (WRIT 307), or Creative Nonfiction: Writing about Cultural Issues (WRIT 308).

(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 both Rhetorical Strategy (COMM 316) and Seminar in Interpersonal Communication (COMM 415) in the fall of their junior year.

### Minors

The communication minor consists of 15 hours including 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.

The Communication Minor: Theater Emphasis (15 hours) 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 Special Topics: Readers Theater (COMM 320). 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 8 hours of Theater Workshop may count toward graduation.**

#### COMM 201 Fundamentals of Speech (2, F&S)

The basic course in speech. Emphasis on the process of communication, vocal effectiveness, informative and persuasive speaking. 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)

Performance course emphasizing presentations typical of public and small group settings. Emphasis on preparing speeches: topic selection, audience analysis, content, structure, persuasive strategies, and delivery. Satisfies the first level Integrative Studies speech requirement.

#### WRIT 212 Advanced Composition: Rhetorical Patterns (3, F&S)

(See course description in writing section.)

#### 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 Argumentation and Debate (3, S)

A performance course in argumentation and debate. Emphasis on evidence and reasoning, affirmative and negative case construction, refutation and rebuttal, and extemporaneous delivery. Recommended for pre-law and pre-ministerial students.

#### COMM 218 Introduction to Broadcasting (3, F)

Introduction to Principles and practices of announcing as applied in a

variety of formats including news, public address, sports, weather, and music. Other topics include a brief survey of broadcast history, consideration of current trends in broadcast media, broadcast law and media ethics, basic principles of production, programming, and management.

**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 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, 351 Television Production** (3, F)

A workshop designed to develop an understanding of basic television production and the programming of entertainment, news, and advertising. Instructor's permission required for advanced level (-351).

**WRIT 303 Periodical Writing** (3, OD)

(See course description in writing section.)

**WRIT 306 Creative Nonfiction: Writing about Nature, Landscape, and the Environment** (3, S)

(see course description in the writing section)

**WRIT 307 Creative Nonfiction: Writing about Spiritual Experience** (3, F)

(see course description in the writing section)

**WRIT 308 Creative Nonfiction: Writing about Cultural Issues** (3, F)

(see course description in the writing section)

**COMM 312 Advertising and Public Relations** (3, F)

Study of methods and responsibilities of advertising and public relations in both profit and non-profit contexts.

**COMM 316 Rhetorical Strategy** (3, F)

Examination of contemporary persuasion theory from various neo-Aristotelian perspectives. Decision making, audience analysis, reasoning, rhetorical purpose and structure, motivation and strategy. Prerequisite: COMM 205 and 210.

**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, S)

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

**COMM 350 Broadcast Journalism** (3, S02)

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 353 Communication Internship** (1-3, F, S, Summer)

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



**COMM 415 Seminar in 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. Prerequisite: COMM 205.

**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, contemporary, 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)

**COMM 496 Honors in Communication** (3, S)

### **English**

The major in English provides students with a 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.

### **Major**

The major in English requires 30 semester hours beyond English Literature (ENGL 203 and ENGL 204.)

Students electing a major in English are required to take: Advanced Composition: Writing about Literature (WRIT 213); both semesters of English Literature (ENGL 203, 204), both semesters of American Literature (ENGL 215, 216), Literary Criticism (ENGL 412), and Senior Seminar: Problems of Literary Study (ENGL 418).

An additional 5 courses of electives are to be selected as follows:

Choose 2 or 3 courses from:

English Renaissance (ENGL 311)  
Restoration and Eighteenth Century (ENGL 312)  
Romanticism and Nineteenth Century (ENGL 313)  
British Fiction (ENGL 321)  
Shakespeare (ENGL 350)

Choose 2 or 3 courses from:

Children's Literature (ENGL 221)  
Modern Drama (ENGL 315)  
Modern American Poetry (ENGL 319)  
Modern British Poetry (ENGL 320)  
American Fiction (ENGL 322)  
American Short Story (ENGL 334)  
Contemporary World Literature (ENGL 361)  
Introduction to Linguistics (LING 220)

Special Topics in Literature (ENGL 390) may be included in either category its subject matter suggests; the major advisor will provide approval.

### **Minor**

Students electing a minor in literature are required to take either both semesters of English Literature (ENGL 203, 204) or both semesters of American Literature (ENGL 215, 216). An additional twelve 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. Literature of the Western World (ENGL 201) may be substituted for one semester of English or American Literature.

**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 literature especially designed for the non-major.

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. Integrative studies requirement for English majors.
- ENGL 204 English Literature II** (3, S)  
 Surveys major works and literary movements of the romantic, Victorian, and modern periods in their biographical, historical, and ideological contexts. Integrative studies requirement for English majors.
- 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)  
 Emphasis 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, and new directions in the 20th century. Close reading of primary texts. Required of English majors.
- 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, 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 311 The English Renaissance** (3, S02)  
 Poetry and prose from Sidney to Milton (excluding Shakespeare). Attention given to political, historical, religious background. Emphasis on Spenser, Milton, and the 17th century devotional poets.
- ENGL 312 Restoration and Eighteenth Century** (3, S01)  
 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, S02)  
 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, F01)  
 Emphasis on American and English drama of the twentieth century. Beckett and O'Neill as progenitors of significant theatrical trends such as realism, expressionism, and the absurd.
- ENGL 319 Modern American Poetry** (3, S02)  
 American poetry from 1900 to present. Emphasis on trends and selected major figures: Eliot, Frost, Pound, Stevens, Williams.

- ENGL 320 Modern British Poetry** (3, S01)  
British poetry from 1900 to present. Emphasis on trends and selected major figures: Hopkins, Hardy, Yeats, Auden, Thomas.
- ENGL 321 British Fiction** (3, F01)  
History and development of the English novel. Emphasis on E. Bronte, Eliot, Hardy, Wilde, Conrad, Forster, Joyce.
- ENGL 322 American Fiction** (3, F00)  
History and development of the American novel. Emphasis on Melville, James, Dreiser, Cather, Fitzgerald, Hemingway, Faulkner, Baldwin.
- ENGL 334 The American Short Story** (3, S02)  
Development of the American short story from its beginnings with Irving, Poe, and Hawthorne to modern practitioners such as Malamud, O'Conner, and Updike.
- ENGL 350 Shakespeare** (3, F00)  
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, geriatrics, government service, industrial publications, and library science.
- ENGL 361 Contemporary World Literature** (3, F00)  
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)  
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 Seminar: 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)

### **Writing major**

The writing major consists of 30 semester hours of writing at the 211 level or above. With the approval of an advisor from the writing faculty, six of those 30 hours may be selected from courses outside the writing department.

Three courses are required for the major. Advanced Composition: Rhetorical Patterns (WRIT 212) is the foundation course and should be taken during the sophomore year. Writer's Workshop (WRIT 401,402) is the capstone and should be taken during the senior year.

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.

**Minors** The writing minor consists of 12 semester hours of writing at the 211 level or above.

**WRIT 211 Advanced Composition: Narrative and Personal Essay** (3, F,S)  
A course in the informal essay based on personal experience. Emphasis on descriptive and narrative techniques, craftsmanship, style. Introduction of the first person article.

**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, S01)  
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, feature articles, the personality profile, reporting environmental stories. 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 Writer's Workshop** (3, F&S)  
Approaches to creativity. Integration of faith and learning. Intensive work in genres selected by students. For senior writing majors and minors.

**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)

# Foreign Languages

**Faculty** Jean-Louis Roederer (chair), Andrew F. Gallman, Richard A. Gould, Horacio A. Hernandez, Granada Hernandez, Rebecca C. Loaliza, Kathleen T. O'Connor, Gudrun M. Stevenson, Angela Tudorii

**Telephone** (716) 567-9475  
(800) 777-2556

**Majors** French (33 hours), Spanish (33 hours)

**Minors** French (12 hours), German (12 hours), Greek (12 hours), Linguistics (15 hours), Spanish (12 hours)

**IS courses** **Level I:**  
4 hours Intermediate Language (French, German, Spanish, Greek, Latin)  
(4, 4 hours of beginning language may be required as pre-requisite)  
Refer to Music IS Level I for specific music major requirements in foreign language

**Level II:**  
3 hours any literature course in the Department of Foreign Languages.

For students whose native language is other than English, the foreign language requirement can be met with English if their entering TOEFL score is 550 or above (see entrance examination rules in the admissions section). Students not majoring in a foreign language may meet the upper-level English integrative studies requirements by taking any modern or ancient language literature course.

**CDRP** **Cross-disciplinary Research Project (CDRP).** 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 and meets the second semester foreign language requirement as per guidelines. Consult the Foreign Language Department for specific guidelines and eligibility requirements. Applicable CDRP courses are identified by "CDRP" in departmental course listings. Collaborating departments are listed below. Three hours of CDRPs will not automatically substitute for the prerequisite of Foreign Language 201 for students wishing to take additional language courses. Collaborating departments: 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.

**Minors in French, Spanish German** The French and Spanish minors require 9 hours beyond the intermediate level course (FREN 201 or SPAN 201); at least 9 hours must be taken in the foreign language, i.e., SPAN 301 but *not* SPAN 322 (in Engl.)

**Minor in Greek** The Greek minor requires 12 hours beyond the introductory course.

**Minor in Linguistics** The linguistics minor, taught in conjunction with the Summer Institute of Linguistics (Wycliffe Bible Translators), consists of 15 hours: Introduction to Linguistics (LING 220), Phonetics (LING 322), Phonology I (LING 323), Grammar I (LING 333), and one additional course from proposed offerings.

**AA Concentration** The concentration for the associate of arts degree requires 15 hours in the chosen language.

**Other information**

Normally, native speakers of French or Spanish are not admitted to the conversation courses for credit. Religion majors who choose to minor in Greek should check the special requirement listed under that division.

Junior-year abroad programs are available in France, Canada, Spain, Colombia, Guatemala, Costa Rica, and Germany/Austria.

**Majors in French & Spanish**

The French and Spanish majors are divided into three tracks. Students wishing to pursue a major in French and Spanish must first choose which track they wish to pursue in order to determine the appropriate courses to take for their major.

**(1) Literature (27 hours):** Students take 27 hours of classes denoted as FREN or SPAN depending on their language. Students must take the following from the courses noted in the sections below: 2 Conversation and Grammar courses; 4 Literature courses, 1 Civilization course and 2 Foreign Language electives. At least 21 hours of these courses must be taken *in the foreign language*, e.g., FREN 301 but *not* FREN 323 (in Engl.).

**(2) Linguistics: (33 hours):** Students following the Linguistics track must take: LING 220; LING 312 *or* LING 432; and *two* of the following: LING 322, LING 323, LING 333 (a total of 12 hours).

Students must also take the following from the courses noted in the sections noted below: 6 hours of Conversation and Grammar; 9 hours of Civilization & Culture *or* 6 hours of Civilization and Culture and 3 hours of Literature (at least 6 hours of Civilization & Culture must be taken *in the foreign language*, e.g., SPAN 301 but *not* SPAN 322 (in Engl.)); and 6 hours from Foreign Language Linguistics.

**(3) Cross Cultural Communications: (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 6 of these hours may be taken at the 200 level and at least 3 of these hours must be taken at the 400 level. These courses should be selected from: COMM 245, 246, 251, 303, 310, 312, 316, 320, 325, 350, 351, 353, 415, 417, 496. For details on these courses please refer to the English and Communication section of this catalog.

Students must also take the following from the courses noted in the sections noted below: 6 hours of Conversation and Grammar; 6 hours of Literature; and 9 hours of Civilization and Culture (at least 3 hours of Civilization & Culture must be taken *in the foreign language*, e.g., SPAN 301 but *not* SPAN 323 (in Engl.))

**NOTE 1:** Students wishing to pursue two majors in foreign language must choose a separate track for their second language major, unless they choose the literature track for both languages. For example, students cannot be both French-linguistics and Spanish-linguistics, but may be French-linguistics and Spanish-literature or Spanish-Cross Cultural Communications.

**NOTE 2:** 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 Con.

**Spanish (SPAN)**

301-Con & Reading  
302-Con & Reading  
452-Advanced Span Composition

**2. Literature:****French (FREN)**

321-Survey of literature  
 407-Drama of 20th cent  
 408-Novel of 20th  
 409-Novel of 19th century

**Spanish (SPAN)**

401-Survey of Span literature  
 402-Survey of Span literature  
 423-Masterp. of Span-Amer lit  
 424-Masterp. of Span-Amer lit

**3. Civilization and Culture****French (FREN)**

315-Mayterm  
 317-Mayterm  
 421-French Civ  
 395-Special Issues  
 323-Politic'l Cinema (in Engl)  
 324- Crossing Cultures (in Engl)

**Spanish (SPAN)**

341-Mayterm in Spain  
 342-MesoAmerican Civ.  
 344-Latin American Mayterm  
 211-Ecotour in Honduras  
 323-Political Cinema (in Engl)  
 324-Crossing Cultures (in Engl)  
 326-La Voz Popular  
 405-Spanish American Civ  
 406-Civilization of Spain  
 HIST 223 *or* HIST 224  
 (by Span. faculty permission only)  
 (up to 3 hours of CDRP)

(up to 3 hours of CDRP)

**4. Foreign Language Linguistics:****French (FREN)**

305-French Phonetics  
 307-French Linguistics (in Engl)  
 318-French Syntax (in Engl)  
 319-French Phonology (in Engl)

**Spanish (SPAN)**

305-Spanish Phonetics  
 307-Spanish Phonology (in Engl)  
 318-Spanish Syntax (in Engl)  
 319-Spanish Phonology (in Engl)

**5. Courses which may be applied to one of several tracks:****French (FREN)**

395-Special Topics\*  
 481-French Honors Intrnshp

**Spanish (SPAN)**

481-Spanish Honors Internship

\*Depending on the course of study, this course may be applied as 3 hours of Literature *or* Civilization & Culture credit. Consult the professor of this course for further clarification on the nature of the course.

**French/  
Spanish  
Courses**

**The following courses may be taken for *either* French *or* Spanish credit.** NOTE: *Your final paper in any of these classes must have as its subject the language of the major which you are pursuing if you wish for credit in that subject area, i.e., for Spanish credit the final paper must be on an aspect of Hispanic culture or language; for French credit the final paper must be on an aspect of Francophone culture or language.*

FREN 307/SPAN 307 **Introduction to Romance Linguistics** (in Engl) (3,S03)

This course is designed to introduce students to the phonetics and phonology (sound systems), morphology (word-formation rules), semantics (word meaning), and syntax (sentence structures) of Romance languages. It will also address how Romance languages have evolved from Latin and continue to evolve as they come into contact with languages outside of Europe (historical linguistics and sociolinguistics).

FREN 318/SPAN 318 **Romance Syntax** (in Engl.) (3, S01)

The analysis of sentence formation rules in Romance languages, with the application of traditional and modern syntactic theoris and methodologies. Prerequisite: FREN /SPAN 307, or LING 220.

FREN 319 / SPAN 319 **Romance Phonology** (in Engl.) (3, S02)

The analysis of the principles that underlie the organization of the sound systems of Romance languages. Prerequisite: FREN /SPAN 307, or LING 220.

- FREN 323/SPAN 323 Political Cinema** (in Engl.) (3,S02)  
In this course, students will view one film per week which examines society from the insider's point of view of a variety of cultures. This course will be taught in English and the films will have English sub-titles.
- FREN 324/SPAN 324 Crossing Cultures** (in Engl.) (3,S01)  
Linguistic, cultural, economic, and historical customs will be surveyed. The course will in part make use of invited guest speakers from various professional backgrounds. Students develop awareness of similarities and differences between cultures with a view to developing a sensitivity and understanding of the people of the language studied.
- French** **FREN 101, 102 Beginning French** (4/4, 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** (4, F)  
Grammar review, selected literary readings and oral practice. Laboratory experience may be required. Prereq: FREN 102, or placement exam.
- 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, S01)  
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, May01)  
A field trip course in Paris of three weeks duration. Daily lecture-visits and excursions to places of cultural interest both in Paris and its environs. A long and a short paper required for integrative studies or major/minor credit. Prerequisite: FREN 201 or equivalent. Approximately \$1950 above tuition.
- FREN 206 or 317 Grand Study Tour of France** (3, May03)  
Fifteen-day field-trip course with daily lecture-visits and motorcoach excursions to places of cultural interest in two major locations: Paris and one other location to be selected. Readings, log, short paper required for integrative studies or major/minor credit. Estimated cost: \$1950 above tuition.
- FREN 321 Survey of French Literature** (3, F00,03)  
Masterpieces of French literature from its beginnings to the present. Prerequisite: FREN 301 or equivalent.
- FREN 395 Special Topics** (3, S03)  
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, S02)  
Masterpieces of the French drama since 1900. Prerequisite: FREN 301 or equivalent.
- FREN 408 French Literature of the 20th Century: Novel** (3, F02)  
Masterpieces of the French novel since 1900. Prerequisite: FREN 301 or equivalent.
- FREN 409 French Novel of the 19th Century** (3, S01)  
A study of selected masterpieces of the French romantic and realistic novel. Prerequisite: FREN 301 or equivalent.



- FREN 421 French Civilization** (3, F01)  
Historical backgrounds and major contributions of France to contemporary culture. Prerequisite: FREN 301 or equivalent.
- FREN 452 Advanced French Grammar and Composition** (3, S03)  
A study of advanced grammar and style. Practice in writing compositions. Prerequisite: FREN 301 or equivalent.
- FREN 461 Advanced French Conversation: Current Events** (3, S02)  
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 191, -2; 291, -2; 391, -2; 491, -2 Independent Study** (1, 2, or 3)
- FREN 496 Honors in French** (3, S)
- German** **GERM 101, 102 Beginning German** (4/4, 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** (4, F&S)  
Review and expansion of grammatical patterns, composition and conversation; modern fiction, biography, and cultural-historical material. Laboratory practice required. Prereq: GERM 102 or placement by exam.
- GERM 301- German Conversation & Readings** (3, S01)  
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 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)
- GREK 301 Classics in Translation** (3, S01)  
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.
- GREK 302 The Classical Hero in Ancient Mythology** (3, S 02)  
In addition to examining how myth is defined and used in various academic disciplines, this course investigates the broad spectrum of Greek and Roman mythology through reading primary sources and

observing how artists and musicians have been influenced by particular mythical heroes.

- Hebrew** HEBR 101, 102 **Beginning Hebrew** (4/4, F01/S02)  
Elements of Biblical Hebrew. Reading from Old Testament. Given under supervision of the Department of Religion and Philosophy.
- HEBR 191, -2; 291, -2; 391, -2; 491, -2 **Independent Study** (1, 2, or 3)
- Latin** LATN 101, 102 **Beginning Latin** (4/4, F01/S02)  
Elements of the Latin language. Stress on facility in reading. Cultural backgrounds in Roman civilization. Current relevancy.
- LATN 221 **Intermediate Latin** (4, F00)  
Grammar review and introduction to Latin literature. Prerequisite: Beginning Latin (101, 102) or two entrance units of Latin.
- Spanish** SPAN 101, 102 **Beginning Spanish** (4/4, 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** (4, 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, May03)  
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, May01)  
Tour of ancient 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, then eastward 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, May02)  
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 211 **Ecotour 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. Check with professor for cost above tuition.
- 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, S01)  
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 201 or equivalent.

- SPAN 326 La Voz Popular** (S, 02)  
This course examines the music, popular poetry and folklore to furnish students with the tools necessary to understand the effect of the mass media on life in Latin American society. Prerequisite: SPAN 302 or permission.
- SPAN 401, 402 Survey of Spanish Literature** (3/3, F01/S02)  
Representative works, El Cid to contemporary times. Prerequisite: SPAN 302 or permission.
- SPAN 405 Spanish-American Civilization** (3, F00,02)  
Survey of Spanish-American culture, pre-Colombian to the present. Socioeconomic problems and relationships with the United States. Prerequisite: SPAN 302 or permission.
- SPAN 406 Civilization of Spain** (3, F01)  
Geography and cultural history of Spain. Present political situation, education, art, music, everyday life. Prereq: SPAN 302 or permission.
- SPAN 423, 424 Masterpieces of Spanish-American Literature** (3/3, F00/S01)  
Selected readings from outstanding Spanish-American authors representing different countries, periods and genres. Prerequisite: SPAN 302 or permission.
- SPAN 452 Advanced Spanish Composition** (3, S02)  
A comprehensive course in structure and usage. Prerequisite: SPAN 302 or permission
- 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 191, -2; 291, -2; 391, -2; 491, -2 Independent Study** (1, 2, or 3)
- SPAN 496 Honors in Spanish** (3, S)

### Linguistics Minor

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.

The linguistics minor, taught in conjunction with the Summer Institute of Linguistics (Wycliffe Bible Translators), consists of 15 hours: Introduction to Linguistics (LING 220), Phonetics (LING 322), Phonology I (LING 323), Grammar I (LING 333), and one additional course from proposed offerings.

- LING 220 Introduction to Linguistics** (3, F,S,M)  
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, F)  
Focuses on language use patterns in multilingual societies: language maintenance and death; language attitudes; language planning; Pidgins and Creoles.

- LING 322 Phonetics** (3, F&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/corequisite: LING 322 Phonetics.
- LING 333 Grammar I** (3, S)  
Principles and techniques of the analysis of morphological and syntactic structures of language. Prerequisite/corequisite: LING 323 Phonology.
- LING 432 Theory and Practice of Language Learning** (3, S)  
Introduction in principles and techniques of linguistic field research with application to a non-Indo-European language. Lectures on practical aspects of work in a field situation. Prerequisite/corequisite: LING 322 Phonetics, LING 323 Phonology.
- 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)
- LING 496 Honors in Linguistics**



*The 14:1 student/faculty ratio affords students an ideal learning environment.*

# History and Political Science

**Faculty** William R. Doezema (chair), A. Cameron Airhart, B. David Benedict, Michael W. Frank, David A. Howard, Ronald J. Oakerson

**Telephone** (716) 567-9440  
(800) 777-2556

**Majors** History (27 hours; Augmented History: 36 hours), Political Science (27 hours; 3 hours pre/co-requisite); International Relations (38-39 hours)

**Minors** History (12 hours), International Relations (15 hours), Political Science (12 hours)

**IS courses** **Level I:**

2, 2 hours Western Culture:

HIST 101 Western Civilization I: Ancient civilization to 1650

HIST 102 Western Civilization II: 1650 to the Present

3 hours chosen from four offerings in economics or sociology or

POLS 101 Introduction to Politics

**Level II:**

3 hours chosen from integrative studies social science list in academic information section.

**History**

The history major involves a strong liberal arts concentration. The major provides 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.

A major in history consists of 27 hours in history above the 210 course level, including the Senior History Seminar (HIST 481).

**Augmented History Major**

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 .....

HIST 481 Senior History Seminar .....

or POLS xxx Political Science Electives .....

(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 Politics Seminar .....

Total .....

**Minor**

A minor in history consists of 12 hours above the 210 level.

**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 may take this course during Mayterm.)
- HIST 110, 111 Western Civilization: Ancient Civilization to 1648**(2,2 F/S)  
 Aspects of ancient Near Eastern, Greek, Roman civilizations relevant to formation of western civilization in early middle ages; flowering of west in high medieval period; transition to modernity during late medieval; upheavals of Reformation era. Attention to analyzing primary source materials and methodology of historian. )Taught for last time in 2000/01. Open only to upperclass persons.)
- HIST 114, 115 World Civilization: 1400 to the Present** (2/2, S01)  
 Survey of political, economic, social, cultural history in selected world regions. Unique values of non-western cultures; relations between the West and non-western world. Attention to analyzing primary source materials and methodology of historians. (Taught for last time in spring of 2001. Open only to upperclass students.)
- 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, S00)  
 Overview of American history to the present.
- HIST 226 New York State History** (May, 02)  
 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, F00)  
 Settlement of North America with emphasis upon religious and social developments as well as upon the American Revolution.
- HIST 360 Early National Period, 1788-1850** (3, S01)  
 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, F01)  
 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, S02)  
 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 p. 101)** (3, F00)  
 Growth of liberal democracy, influence of industrial revolution and impact of nationalism. French Revolution to 1890.
- HIST 326 Europe, 1890-1945** (3, S01)  
 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, F02)  
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, F00)  
A survey of the continental, English, and Roman Catholic reformation of the sixteenth century.
- HIST 430 English History to 1714** (3, TBA)  
Roman England to the Stuarts, with attention to constitutional and religious developments.
- HIST 431 English History since 1714** (3, F01)  
Hanoverian Britain to the present, with attention to political and social developments.
- Regional History**
- HIST 223 Latin American History to 1800** (3, S01)  
An introductory survey, with attention to cultural interaction during the colonial period.
- HIST 224 Latin American History since 1800** (3, F01)  
An introductory survey of Latin America from the revolutionary era to the present.
- HIST 249 African History** (3, S02)  
Sub-Saharan Africa from earliest times. Medieval empires of western Sudan, colonial rule, emergence of national states.
- HIST 251 East African History** (3,F00)  
(See Special Studies section for course description.)
- HIST 355 East Asia: History and Politics** (3, F00)  
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 nineteenth and twentieth centuries leading to founding of Communist China and new Japan.
- HIST 357 Russia and the USSR: History and Politics** (3, S01)  
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 p. 101)** (2 or 3, OD)  
Group study of selected topics; open only by permission.
- HIST 481 Senior History Seminar** (3, F&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)
- Cross-listed courses**
- 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.)

**HUM 401 Pagans and Christians: Ancient and Medieval Texts** (3, TBA)  
 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.

**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.

15 hours of core requirements above POLS 101:

POLS 222	The American Political System .....	3
POLS 230	Introduction to International Relations .....	3
POLS 312	Social Science Research Methods .....	3
	(prerequisite is Statistics [POLS 309])	
POLS 364	Political Thought .....	3
POLS 480	Senior Politics Seminar .....	3

Twelve hours of political science electives above the 210 level are not included in the core requirements. Majors may fulfill up to 6 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.

**Minor**

The minor consists of 12 hours of POLS courses above POLS 101.

**POLS 101 Introduction to Politics** (3, F&S)  
 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, and interdependence, and issues such as foreign policy decision making, causes of war, and nuclear arms control.



- POLS 240 Comparative Government** (3, S02)  
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 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. Does not count toward either major or minor.
- 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, F00)  
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)  
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.
- POLS 321 Public Organization** (3, F00)  
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, S01)  
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, F00)  
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, S01)  
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)  
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, F00)  
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, S01)  
 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 364 Survey of Political Thought** (3, S)  
 Introduction to Western political thought and ideas in political dialogue from the Greeks to recent critical theories. Provides foundation for understanding political action in society. Considers issues of order, equality, justice, freedom.
- 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 3 hours of credit may be counted toward the major or minor. May be combined with an additional 3 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, S01)  
 Development of the Constitution through practice and leading court decisions from 1787 to the present. Emphasis on case studies.
- POLS 480 Senior Politics Seminar** (3, S)  
 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)

**International Relations major**

The international relations major seeks to present students with a macro level of international studies (from an international politics, international economics, and world community perspective).

Prerequisite: ECON 210 Principles of Microeconomics ..... 3  
 (but it counts for 1 of 2 social science choices for first level IS credit)  
 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 readings 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 *two* International Politics courses:

POLS 240 Comparative Government ..... 3

POLS 395 International Relations Theory ..... 3

POLS 395 International Law and Organization ..... 3

POLS 316 American Foreign Policy ..... 3

POLS 395 Governance and Politics in Developing Countries .....	3
Choose <i>two</i> International Economics/Business courses:	
ECON 212 International Economics .....	3
ECON 237 Comparative Economic Systems .....	3
ECON 211 Principles of Macroeconomics .....	3
BADM 313 International Business .....	3
Choose at least one (3 hours), but not more than two (6 hours), regional histories:	
HIST 357 Russia and USSR: History and Politics .....	3
HIST 355 East Asia: History and Politics .....	3
HIST 325,326 Modern European History .....	3, 3
HIST 223,224 Latin American History .....	3, 3
HIST 249 African History .....	3
HIST 251 East African History .....	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.	
<u>Capstone Courses:</u>	
INDS 311 Intercultural Experience (Internship) .....	4-6
(Only four hours count toward the major, but as many as six can be brought back for credit on the transcript)	
Senior Intercultural Seminar (pending approval) <b>or</b> .....	2
POLS 480 Senior Politics Seminar .....	3
Total:	38-39 hours

**Minor The 15-hour minor in international relations consists of:**

Prerequisite: ECON 210 Introduction to Microeconomics	
POLS 230 Introduction to International Relations .....	3
International Politics .....	3
(choose one course from list of Int'l Politics courses in major)	
International Economics .....	3
(choose one course from list of Int'l Economics courses in major)	
And both these courses:	
INDS 211 Intercultural Transition and Adjustment .....	2
INDS 311 Intercultural Experience .....	4

**INDS 211 Intercultural Transition and Adjustment** (1-2, 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 INDS 311. It is required of all language major/minors taking a semester abroad, and highly recommended for all other students studying abroad for Houghton credit.

**INDS 311 Intercultural Experience** (4-5, OD)  
 Required for international studies major or intercultural relations minor; open to others. No student may enroll in this course until a written proposal for the experience, internship, or study program is approved by the office of intercultural affairs and international studies. Written guidelines are available in that office. Enrollment in Intercultural Transition and Adjustment (INDS 211) is a prerequisite to this course.

# Integrative Studies

**Faculty** Paul Young (chair), Cameron Airhart, Bruce Brenneman, Carlton Fisher, Robert Galloway, Mark Hijleh, Richard Jacobson, Ben King, Jayne Maugans, Richard Perkins, Chris Stewart, J. Michael Walters, Jim Wardwell

**Telephone** (716) 567-9308

The Department of Integrative Studies (IS) was created to express Houghton's commitment to the liberal arts and in particular to integrative studies (formerly 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

**IS Courses** **Integrative Studies Research Requirement.** Each student is required to fulfill an information research requirement by registering for an R-designated course and successfully completing all research-related requirements. This includes participation in a number of library sessions and completion of the research requirements for a particular course. R-courses are designated in the Master Schedule. There are 15 to 20 lower-level, integrative studies courses designated as R-courses each semester—for example, ENGL 101FR, PSY 110AR, PHIL 210BR.

**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.

# Mathematics & Computer Science

**Faculty** Richard A. Jacobson (chair), Coenraad Bakker, Wei Hu, David Perkins, Paul Watson

**Telephone** (716) 567-9283  
(800) 777-2556

**Majors** Mathematics (28 hours), Computer Science (27 hours)

**Minors** Computer Information Systems (15 hours), Computer Science (15 hours), Mathematics (14 hours)

**IS courses** **Level I:**

3 hours chosen from:  
 MATH 107 Pre-Calculus (3)  
 MATH 181 Calculus I (4)  
 MATH 182 Calculus II (4)  
 MATH 261 Linear Algebra (3)

**Level II:**

3 hours in any math course numbered above 155,  
 CSCI 155 Computer Applications and Issues  
 (El Ed majors may use EDUC 114, Math for El Ed Teachers)

**Major in Mathematics**

A major in mathematics consists of 28 semester hours in courses numbered 181 or above including Calculus I and II (MATH 181, 182); Linear Algebra (MATH 261); and Mathematics Seminar (MATH 482).

Modern Geometries (MATH 251) and Algebra I (MATH 462) are highly recommended for those preparing to teach mathematics in secondary schools.

Many of our graduates in mathematics 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.

**General Science Major**

The general science major is made up of six hours in mathematics, eight hours each in biology, chemistry, physics, and earth science (including geology [ESCI 101] eight or more hours additional concentration in one of the four science areas in courses numbered 211 or above. 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 one of the liberal arts areas.

**Childhood (Elementary) Education**

Concentration in Mathematics

This program consists of a major in childhood education and 30 hours selected from mathematics as follows:

MATH 107 .....	Pre-Calculus	3
EDUC 114 Math for Elementary Teachers .....		3
MATH 181 & 182 Calculus I and II .....		4,4
MATH 251 .....	Modern Geometries	3

The remaining thirteen hours can be chosen from Programming I or II (CSCI 211 or 218), or any math course numbered 190 or above.

**Adolescence (Secondary) Education**

Students who intend to make a career of teaching math at the secondary level need a math major and must complete three additional hours in a mathematics course numbered above 300 and their education course requirements for certification.

**Minor in Mathematics**

A minor in mathematics consists of 14 semester hours of courses numbered 181 or above.

**MATH 107 Pre-Calculus** (3, F&S)

A contemporary approach to precalculus mathematics, including linear, quadratic, and trigonometric functions as well as introductory probability concepts. Incorporation of peer group work with a strong emphasis on graphic 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. Prerequisite: MATH 181 or permission.

**MATH 231 Probability** (3, F01)

Combinatorics, independence, conditional probability, discrete and continuous random variables, expected value and variance. Prerequisite: MATH 182.

**MATH 232 Mathematical Statistics** (3, F00)

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&S)

Methods of solution and applications of principal 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)

Linear algebra: vector spaces, linear mappings, inner products and matrices. Prerequisite: MATH 182.

**MATH 321 Multivariate Calculus** (3, F)

Infinite series, space geometry, vectors, vector function, function of several variables, partial differentiation, multiple integration.

**MATH 331 Numerical Analysis** (3, S02)

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 FORTRAN. Prerequisites: CSCI 151, MATH 261.

**MATH 422 Advanced Calculus** (3, F00)

Structure of the real number system, theory of limit, continuity, differentiation, Riemann integration, and infinite series. Prerequisites: MATH 321 and MATH 261, or permission.

<b>MATH 452 Point Set Topology</b>	(3, S02)
Open and closed sets. Connected, compact, and metric topological spaces. Prerequisite: MATH 261.	
<b>MATH 462 Algebra I</b>	(3, S01)
Groups, Sylow theorems, rings and fields. Prerequisite: MATH 261.	
<b>MATH 471 Complex Analysis</b>	(3, S01)
Complex number system, limits, differentiation and integration in the complex plane, complex series. Prerequisites: MATH 321 and MATH 261, or permission.	
<b>MATH 482 Mathematics Seminar</b>	(2, S)
For seniors, except by permission. Required of all math majors.	
<b>MATH 391, -2; 491, -2 Independent Study</b>	(1, 2 or 3)
<b>MATH 295, -6; 395, -6; 495 Special Topics in Mathematics</b>	(1, 2 or 3)
<b>MATH 496 Honors in Mathematics</b>	(3)

**Major in Computer Science**

A major in Computer Science consists of 33 hours numbered 211 or above. These eleven courses include these eight required Computer Science courses:

Programming I (CSCI 211), Discrete Mathematics (CSCI 214), Data Structures (CSCI 221), Computer Architecture (CSCI 226), Sequential and Parallel Algorithms (CSCI 327), Foundations of Computing (CSCI 328), Programming Languages (CSCI 335), and a Senior Project (CSCI 490).

Three additional Computer Science courses must be selected depending upon one's interest. Two of these electives must be selected from courses numbered 300 or above. The requirements also include an integral mathematics component of one course selected from Mathematical Statistics (MATH 232), Linear Algebra (MATH 261), or Numerical Analysis (MATH 331). Though not part of the major, Calculus I (MATH 181) and Calculus II (MATH 182) are recommended as basic courses.

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.

**Minors in Computer Science**

A minor in **computer science** consists of 15 hours in computer science courses including Programming I (CSCI 211), Data Structures (CSCI 221), Computer Architecture (CSCI 226), and two elective computer science courses numbered 300 or above.

A minor in **computer information systems** consists of 15 hours in computer science and business courses including Programming I (CSCI 211), Advanced Computer Applications (CSCI 220), Systems Analysis and Design (CSCI 2xx), Statistics (BADM 309), and one elective computer science course numbered 300 or above.

<b>CSCI 155 Computer Applications and Issues</b>	(3, F&S)
An introduction to microcomputer hardware and software. Course content includes Windows 95 and Office 97 applications for word-processing, spreadsheets, databases, and presentations. Discussion of current issues in computing. No prerequisites.	

- CSCI 211 Programming I** (3, F&S)  
An introduction to modern techniques of object-oriented programming using C++. Writing programs to solve problems. No prerequisites.
- CSCI 218 Programming II** (3, S02, 04)  
Java is a new object-oriented programming language, it is simple compared to C++, and it is platform independent. More importantly, it can make WWW pages "come alive" with Audis, animations, video and three-dimensional imaging. This course covers Java fundamentals, creating applets (compiled programs that run through any WWW browser that support Java), and Graphic User Interfaces (GUIs). Prerequisite: CSCI 211 or permission.
- CSCI 214 Discrete Mathematics** (3, S)  
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. No prerequisites.
- CSCI 220 Advanced Computer Applications** (3, S01, 03)  
Advanced spreadsheet, word processing, database and presentation software topics. Prerequisite: CSCI 151 or BADM 309 or permission.
- CSCI 221 Data Structures** (3, S)  
A continuation of Programming I. Use of top-down design and object-oriented techniques to write larger programs in C++. Course content includes programming techniques of searching, sorting, recursion, and algorithmic analysis. Data structure topics include stacks, queues, linked lists, trees. Prerequisite: CSCI 211 or permission.
- CSCI 226 Computer Architecture** (3, F)  
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 245 Systems Analysis and Design** (3, F01, 03)  
Structured and object-oriented systems analysis and design including software life cycle, project management techniques, end-user involvement, cost-benefit analysis, professional ethics. Group projects using CASE tools and a team approach. Prerequisite: CSCI 220 or CSCI 221.
- CSCI 326 Operating Systems** (3, F00, 02, 04)  
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 NT and systems programming in C++. Prerequisite: CSCI 221 or CSCI 245 or permission.
- CSCI 327 Sequential and Parallel Algorithms** (3, F)  
This course examines the design and efficiency of algorithms from both sequential and parallel perspectives. It also investigates problem-solving strategies and the relative difficulty of various classes of problems and problem-solving techniques. Prerequisite: CSCI 221 or 245, or permission.
- CSCI 328 Foundations of Computing** (3, S)  
This core course builds upon the ideas presented in previous courses such as complexity analysis of algorithms, Boolean logic, the use of recurrence relations to analyze recursive algorithms, and the formal description of abstract data types. The subject matter will demonstrate the logical and



mathematical foundations of computer science and provide a context for this theory by using the ideas in applications such as models of computation, grammars and parsing, solvable and unsolvable problems. Prerequisites: CSCI 214 and 221.

- CSCI 335 Programming Languages** (3, S)  
 This is a survey of major languages. Topics include organization of languages, run time behavior of languages, formal aspects of programming language specification and analysis. Exposure to coding in most languages covered. Prerequisite: CSCI 221 or 245, or permission.
- CSCI 340 Data Bases** (3, S02, 04)  
 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 211 and ( CSCI 220 or 221) or permission.
- CSCI 420 Networking** (3, F00, 02, 04)  
 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 221 or 245, or permission.
- CSCI 425 Computer Graphics** (3, F01, 03)  
 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 221.
- CSCI 430 Modeling and Simulation** (3, S01, 03)  
 A study of modeling and simulation methods, focusing on discrete systems. A variety of simulation languages are reviewed. Many applications are surveyed and group term projects are carried out. Prerequisites: (CSCI 221 and MATH 232) or (CSCI 245 and BADM 309).
- 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)

# Music

<b>Faculty</b>	George A. Boespflug (director), Bruce C. Brown, Judy A. Congdon, Robert J. Galloway, Mark Hartman, Mark D. Hijleh, Ben R. King, Harold E. McNiel, B. Jean Reigles, Mark L. Taylor
<b>Adjunct &amp; part-time</b>	Jane Allen, Dolores Gadevsky, Nan Gullo, Virginia Halberg, Kelley Hijleh, Julie Tunstall, Ed Wadin, and others as appropriate from the Buffalo and Rochester Philharmonic orchestras
<b>Telephone</b>	(716) 567-9400 (office), 567-9517 (fax) (800) 777-2556
<b>Email</b>	<i>music@houghton.edu</i>
<b>Majors</b>	Music (BA: 36-37 hours), Church Ministries (BA/BS: Bible major + 37 hour music concentration); Performance (BMus: hours variable), Music Education (BMus: hours variable), Theory/Composition (BMus: hours variable)
<b>Minors</b>	Performance and contract minors available
<b>IS courses</b>	<b>Level I:</b> 3 hours in Art or Music, chosen from: (3) MHS 113 Masterworks of Sight and Sound (3) MHS 211 Music and Listening: an introduction (3) MHS 254 Music of World Cultures (2) CHMU 216 Intro to Hymnology (ministerial program only) (3) CHMU 351 Music and Worship (3) MHS 222 Film Music (3) MUS 137, 143, 145, 147, 149 Certain major ensembles (3) Any course listed for Level I in the Department of Art  <b>Level II:</b> None

## General Information

The School of Music is a full member of the National Association of Schools of Music, and its curricula conform to NASM published standards. Within a Christ-centered liberal arts education, Houghton College School of Music faculty seek to provide students with a Christian environment for developing the highest artistic values, to serve students via excellence in their professional work, to provide students with the means for rewarding and fulfilling artistic endeavors, to prepare students, and to develop in all students an awareness of the creative dimension of the whole person.

### Liberal arts study in the School of Music

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 8 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 for a BA in music are:

MUS 250	Music & Christian Perspective .....	2
MTH 227-228	Aural Skills I-II .....	2
MTH 225-226	Theory I-II .....	6
MHS 211	Music & Listening: an introduction .....	3
MHS 231-234	Music History and Literature I-IV (any 2) .....	5-6
MAP —	Applied Music (6 hours above level-220) .....	12
—	Electives in Music (211 or above) .....	6
MUS —	Ensembles (4 sem., with or w/o credit) .....	0
	Total:	35-37

The BA degree in music can be combined with other curricula in a double major. Business administration, communication, and psychology are com-

binations 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 for entrance.

During four semesters in the BA music curriculum, the student 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.

**Church Ministries (BS)**

In cooperation with the Department of Religion and Philosophy, the School of Music offers a music concentration to complement a major in Bible or educational ministries for a BS in church ministries. The objective is to provide a basic musical background for the pastor and/or Christian education director who must handle the service music in a small church setting.

Course requirements for music concentration in church ministries major:

MUS 250	Music & Christian Perspective .....	2
MTH 225	Theory I-II .....	6
MTH 227	Aural Skills I-II .....	2
MHS 211	Music & Listening: an introduction .....	3
MUS 229, 329	Basic, Choral Conducting .....	4
MAP 764	Voice level 220+ .....	6
MAP 754, 752	Piano or Organ any level .....	5
MUS —	Ensemble (4 semester req.) .....	0-2
CHMU 216	Introduction to Hymnology .....	2
CHMU 301	Church Music Administration .....	2
CHMU 351	Music & Worship .....	3
Total:		35-37

A music audition is required for entrance into this program. Contact the director of the School of Music.

For further information regarding the Bible or educational ministries majors, contact the Department of Religion and Philosophy.

Recital attendance and ensemble participation policies conform to those for BA music majors (above).

**Liberal Arts Music Minor**

**Contract minor in music**

A 16-hour contract minor as determined by arrangement with the director of the 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 area (eight hours above level 230 and one year in an appropriate ensemble). Audition and permission of the director of the School of Music required. Limited enrollment in some areas based on teacher load availability.

Instrumental and Vocal: voice, violin, viola, violoncello, double bass, guitar, trumpet, frenchhorn, 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 above level 227)  
14 hours of organ (6 hours of piano above level 117 and 10 hours of organ level 230 and above, or 14 hours of organ level 230 and above)  
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.

### 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 School of Music. A tape-recorded audition may be sent, by permission of the director of the School of Music, in cases where an in-person audition is not possible. All appropriate forms, guidelines, supplemental information, and scholarship information is available through the music office. Call 1-800-777-2556 or send email to request these.

### Transfer students

Students transferring to Houghton 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

#### Bachelor of Music Curricula

As part of all bachelor of music curricula, students are required to have at least 33 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*) .....	4-12
Literature of the Western World .....	3
Western Civilization .....	4
Lifetime Wellness or Activity course .....	1
Advanced Bible or Christian Theology .....	3

\*The minimum requirement for Music Education-Instrumental, Music Education-Combined, and Theory/Composition majors is 4 hours of beginning foreign language. The minimum requirement for Music Education-Voice majors, and for Instrumental Performance majors, is 8 hours of foreign language, normally either French or German. The minimum requirement for Vocal Performance majors is 8 hours of beginning language in either French or German, and 4 hours of beginning language in the other language. Music majors may satisfy these requirements via placement exam, CLEP, or AP exam. [The School of Music may advise additional foreign language study for some B.Mus. students.]

Music Education majors add:

Introduction to Psychology .....	3
Physics of Music .....	2

Plus electives to equal 36 hours, or 32 hours for combined curricula

### Theory/Composition

The theory curriculum emphasizes music theory and composition. It prepares for the teaching of these subjects (after graduate study) in college or conservatory, and for arranging and studio work. The senior recital requirement may be met by either a full recital of original compositions including a composition of significant length and form, or by a half recital of original compositions plus an original work of significant length and form included in another performance.

Music course work:

MUS 250 Music & Christian Perspective .....	2
MTH 227-328 Aural Skills I-IV .....	4
MTH 225-326 Theory I-IV .....	12

MTH 358	Sixteenth Century Counterpoint .....	3
MTH 375	Synthesizer Computer Applications .....	2
MTH 463	Form and Analysis .....	3
MTH 467	Theory and Analysis of 20th Century Music .....	3
MTH 367	Elementary Composition and Orchestration .....	2
MTH 368	Intermediate Composition and Orchestration .....	2
MTH 469	Advanced Composition .....	2
MTH 470	Advanced Composition .....	2
MHS 231-334	Music History and Literature I-IV .....	10
MAP —	Applied Music (Required piano level-- 237) .....	24
MED 214	Woodwind Instruments .....	1
MED 215	String Instruments .....	1
MED 217	Brass Instruments .....	1
MED 218	Percussion Instruments .....	1
MUS 229	Basic Conducting .....	2
MUS 329	Choral Conducting <b>or</b> .....	2
MUS 430	Instrumental Conducting .....	2
MTH 465	Advanced Keyboard .....	2
MED 356	Vocal Pedagogy (Voice majors, only) .....	(2)
MUS 485	Senior Recital .....	0
MUS —	Ensembles (with or without credit-8 semesters) .....	0
	Total:	81-83

Entering Theory/Composition majors are expected to have piano proficiency equivalent to at least level 225, and level 230 in the major applied area. Required graduation levels are Piano 237 and 245 in the major applied area.

**Performance**

**Performance curricula** prepare 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 performance is expected.

**Bachelor of Music in Performance—Voice**

MAP 764	Voice (levels 230-475) .....	28
MED 356	Vocal Pedagogy .....	2
MUS 219-220	Foreign Language Diction .....	2
MUS 250	Music and Christian Perspective .....	2
MTH 227-328	Aural Skills I-IV .....	4
MTH 225-326	Theory I-IV .....	12
MHS 231-334	Music History and Literature I-IV .....	10
MHS 229	Basic Conducting .....	2
MHS 329	Choral Conducting .....	2
MTH 358	Sixteenth Century Counterpoint .....	3
MTH 367	Elementary Composition and Orchestration .....	2
MTH 463	Form and Analysis .....	3
MTH 467	Theory & Analysis of 20th Century Music .....	3
CHMU 216	Hymnology .....	2
MAP 754	Piano (level 220-237) .....	0-12
MUS —	Junior and Senior Recitals .....	0
MUS —	Ensembles (with or without credit-8 semesters) .....	0
	Total:	77-89

**Bachelor of Music in Performance—Brass, Woodwinds, or Strings**

MAP —	Major Applied Studies (levels 240-487) .....	30
MED 241	Brass Techniques (2) <b>or</b>	
MED 242	Woodwind Techniques (2) <b>or</b>	
MED 227	String Techniques (2) .....	2
MUS 250	Music & Christian Perspective .....	2
MTH 227-328	Aural Skills I-IV .....	4
MTH 225-326	Theory I-IV .....	12
MTH 467	Theory & Analysis of 20th Century Music .....	3
MHS 231-334	Music History and Literature I-IV .....	10
MUS 229	Basic Conducting .....	2
MTH 367	Elementary Composition and Orchestration .....	2
MTH 368	Intermediate Composition and Orchestration .....	2
MTH 463	Form and Analysis .....	3

MTH 358	Sixteenth Century Counterpoint .....	3
MAP 754	Piano (level 220-227) .....	0-6
MAP —	Applied minor in major family .....	4
MUS —	Ensembles (with or without credit - 8 semesters) .....	0
MUS —	Junior and Senior Recitals .....	0
Total:		79-85

### Bachelor of Music in Performance—Piano

MAP 754	Piano (level 240-487) .....	30
MUS 477	Piano Pedagogy I .....	2
MUS 478	Piano Pedagogy II .....	2
MUS 479	Piano Literature .....	2
MUS 250	Music & Christian Perspective .....	2
MTH 227-328	Aural Skills I-IV .....	4
MTH 225-326	Theory I-IV .....	12
MHS 231-334	Music History and Literature I-IV .....	10
MUS 229	Basic Conducting .....	2
MTH 358	Sixteenth Century Counterpoint .....	3
MTH 367	Elementary Composition and Orchestration .....	2
MTH 368	Intermediate Composition and Orchestration .....	2
MTH 463	Form and Analysis .....	3
MTH 465	Advanced Keyboard .....	2
MTH 467	Theory & Analysis of 20th Century Music .....	3
MAP —	Applied Minor (usually organ) .....	5
MUS —	Ensembles (with or without credit-8 semesters) .....	0
MUS —	Junior and Senior Recitals .....	0
Total:		86

### Bachelor of Music in Performance—Organ

MAP 752	Organ (level 240-487) .....	30
CHMU 476	Service Playing .....	2
MUS 250	Music & Christian Perspective .....	2
MTH 227-328	Aural Skills I-IV .....	4
MTH 225-326	Theory I-IV .....	12
MTH 231-334	Music History and Literature I-IV .....	10
MUS 229	Basic Conducting .....	2
MTH 367	Elementary Composition and Orchestration .....	2
MTH 465	Advanced Keyboard .....	2
MTH 467	Theory & Analysis of 20th Century Music .....	3
MUS —	Junior and Senior Recitals .....	0
MUS —	Ensembles (with or without credit-8 semesters) .....	0
MAP 754	Piano (level 240-351) .....	8
MTH 463	Form and Analysis .....	3
MTH 358	Sixteenth Century Counterpoint .....	3
MUS 480	Organ Literature and Pedagogy .....	2
Total:		85

## 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

Music Courses:	Hours	
MUS 250	Music & Christian Perspective .....	2
MTH 227-328	Aural Skills/Ear Training I-IV .....	4
MTH 225-326	Music Theory I-IV .....	12
MHS 231-334	Music History and Literature I-IV .....	10
MUS 229	Basic Conducting .....	2
MUS 430	Instrumental Conducting .....	2
MTH 367	Elementary Composition and Orchestration .....	2
MED 214-218	WW, St, Br, Perc Instruments .....	4
MED 249-50	Keyboard Skills (Keyboard majors only) .....	4
MAP —	Applied Major .....	19
CLPI 110-216	Class Piano I-III (Instr. maj. only) .....	0-3
MAP 764	Voice (level 116-221) .....	0-3
MUS —	Ensembles (7 sem., with or w/o credit) .....	0
MUS 485	Senior Recital .....	0

MED 210	Field Experience in Music Education .....	2
	Total:	63-69

<b>Professional Education:</b>		<b>Hours</b>
MED 405	Student Teaching .....	9
MED 419	Student Teaching Seminar .....	3
MED 351	Elementary School Methods <b>or</b>	
MED 352	Secondary School Methods .....	2
MED 354	Instrumental Methods .....	2
MED 227-242	St. Br, Prc, WW Techniques .....	7
MUS 223	Jazz Workshop .....	1
EDUC 201	Instructional Psychology and Research .....	3
EDUC 217	History and Philosophy of Education .....	3
EDUC 350	Instructional Environments for Diverse Learners <b>or</b>	
EDUC 414	Educating Exceptional Children <b>or</b> .....	3
	Total:	33

**Bachelor of Music in Music Education—Vocal emphasis**

<b>Music Courses:</b>		<b>Hours</b>
MUS 250	Music & Christian Perspective .....	2
MTH 227-328	Aural Skills/Ear Training I-IV .....	4
MTH 225-326	Music Theory I-IV .....	12
MHS 231-334	Music History and Literature I-IV .....	10
MUS 229	Basic Conducting .....	2
MUS 329	Choral Conducting .....	2
MTH 367	Elementary Composition and Orchestration .....	2
MED 214-218	WW, St. Br, Prc Instruments .....	4
MED 249-250	Keyboard Skills (Keyboard majors only) <b>or</b> .....	(4)
MUS 219-220	Foreign Language Diction (Voice majors only) ...	(2)
MAP —	Applied Major .....	19
CLPI 110-226	Class Piano I-VI (Voice maj. only) .....	0-6
MAP 764	Voice (level 116-227; maj. only) .....	0-3
MUS —	Ensembles (7 sem., with or w/o credit) .....	0
MUS 485	Senior Recital .....	0
MED 210	Field Experience in Music Education .....	2
	Total:	66-67

<b>Professional Education:</b>		<b>Hours</b>
MED 405	Student Teaching .....	9
MED 419	Student Teaching Seminar .....	3
MED 351	Elementary School Methods .....	2
MED 352	Secondary School Methods .....	2
MED 353	Opera Workshop .....	1
MED 356	Vocal Pedagogy .....	2
EDUC 20	Instructional Psychology and Research .....	3
EDUC 217	History and Philosophy of Education .....	3
EDUC 350	Instructional Environments for Diverse Learners <b>or</b>	
EDUC 414	Educating Exceptional Children .....	3
	Total:	28

**Bachelor of Music in Music Education—Instrumental combined emphasis**

<b>Music Courses:</b>		<b>Hours</b>
MUS 250	Music & Christian Perspective .....	2
MTH 227-328	Aural Skills/Ear Training I-IV .....	4
MTH 225-326	Music Theory I-IV .....	12
MHS 231-334	Music History and Literature I-IV .....	10
MUS 229	Basic Conducting .....	2
MUS 430	Instrumental Conducting .....	2
MTH 367	Elementary Composition and Orchestration .....	2
MED 214-218	WW, St. Br, Prc Instruments .....	4
MED 249-250	Keyboard Skills (Keyboard majors only) .....	4
MAP —	Applied Major .....	19
CLPI 110-220	Class Piano I-IV (Instr. maj. only) .....	0-4
MAP 764	Voice (level 116-222) .....	0-4
MUS —	Ensembles (7 sem., with or w/o credit) .....	0
MUS 485	Senior Recital .....	0
MED 210	Field Experience in Music Education .....	2
	Total:	67-71

Professional Education:		Hours
MED 405	Student Teaching .....	9
MED 419	Student Teaching Seminar .....	3
MED 351	Elementary School Methods or	
MED 352	Secondary School Methods .....	2
MED 354	Instrumental Methods .....	2
MED 227-242	St. Br, Prc, WW Techniques .....	7
MUS 223	Jazz Workshop .....	1
EDUC 201	Instructional Psychology and Research .....	3
EDUC 217	History and Philosophy of Education .....	3
EDUC 350	Instructional Environments for Diverse Learners or	
EDUC 414	Educating Exceptional Children or .....	3
Total:		33

### Bachelor of Music in Music Education—Vocal combined emphasis

Music Courses:		Hours
MUS 250	Music & Christian Perspective .....	2
MTH 227-328	Aural Skills/Ear -training I-IV .....	4
MTH 225-326	Music Theory I-IV .....	12
MHS 231-334	Music History and Literature I-IV .....	10
MUS 229	Basic Conducting .....	2
MUS 329	Choral Conducting .....	2
MTH 367	Elementary Composition and Orchestration .....	2
MED 214-218	WW, St, Br, Prc Instruments .....	4
MED 249-250	Keyboard Skills (Keyboard majors only) .....	4
MUS 219-220	Foreign Language Diction (Voice majors only) .....	2
MAP —	Applied Major .....	19
CLPI 110-226	Class Piano I-VI (Voice maj. only) .....	0-6
MAP 764	Voice (level 116-227; Kbd. maj. only) .....	4-7
MUS —	Ensembles (7sem., with or w/o credit) .....	0
MUS 485	Senior Recital .....	0
MED 210	Field Experience in Music Education .....	2
Total:		65-72

Professional Education:		Hours
MED 405	Student Teaching .....	9
MED 419	Student Teaching Seminar .....	3
MED 351	Elementary School Methods .....	2
MED 352	Secondary School Methods .....	2
MED 227,241,242	String, Brass, WW Techniques .....	6
MED 353	Opera Workshop .....	1
EDUC 201	Instructional Psychology and Research .....	3
EDUC 217	History and Philosophy of Education .....	3
EDUC 350	Instructional Environments for Diverse Learners or	
EDUC 414	Educating Exceptional Children or .....	3
Total:		32

### Alternate Concentration in Theory/Composition

An alternate curricular plan in Music Education (either vocal or instrumental emphasis) with a concentration in theory/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 .....	10
MTH 368	Intermediate Composition .....	2
MTH 469	Advanced Composition .....	2
MTH 470	Advanced Composition .....	2
MTH 463	Form and Analysis or	
MTH 358	Sixteenth Century Counterpoint .....	3
MUS 485	Senior Recital (Composition) .....	0

Students pursuing this major must meet the entrance and graduation proficiency requirements cited under the BMus Theory/Composition major.

Church Music	CHMU 216 Introduction to Hymnology	(2, S02)
	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.

**CHMU 301 Church Music Administration** (2, F00)

Principles and administration of church music including resources, recruitment, children's choirs, handbell choirs, and working with pastoral staff and congregation.

**CHMU 351 Music and Worship** (3, S02)

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.

**CHMU 476 Service Playing** (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.

**Ensembles 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 1 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. Small ensembles are also formed according to demand, either with or without credit.

Non-music majors may satisfy the 3-credit integrative studies requirement in fine arts by several semesters' participation in a major ensemble. Ensembles which carry integrative studies credit include Women's Choir (MUS145), Chapel Choir (MUS147), Symphonic Winds (MUS 137), Philharmonia (Orchestra) (MUS 143), and College Choir (MUS149). Completion of the IS fine arts requirement normally requires 2 years' participation in a major ensemble.

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 with permission of the conductor. However, ensembles other than the five major ones listed above (with 100-level course numbers) will count only as elective credit, and not for integrative studies credit.

**Ensembles for music majors**

One major ensemble (MUS 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 of one of these ensembles with the concurrence of the department chair.

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.

† Denotes major ensemble; counts for integrative studies credit.

MUS 255 **Brass Ensemble** (0, 1)

MUS 457F **Woodwind Quintet** (0, 1)

MUS 089, 090 **Choral Union** No credit

MUS 223 **Jazz Workshop** (1/1, F/S)

Three hours in rehearsal per week. To receive credit, membership must be with concurrent participation in band, orchestra, or symphonic winds.

- MUS 226 **Flute Ensemble** (1, F&S)
- MUS 457A **String Ensemble** (1, F&S)
- MUS 457C **Handbell Choir** (0,1)
- MUS145, 245 **Women's Choir** † (1/1, F/S)  
Three hours in rehearsal each week. Some touring.
- MUS 147,247 **Chapel Choir (Touring)** † (\*1/2, F/S)  
*\*Ordinarily one credit first semester; two credits second semester.*  
Five hours in rehearsal per week.
- MUS 137,337 **Symphonic Winds (Touring)** † (1/1, F/S)  
Membership by permission only. Four hours in rehearsal per week.
- MUS 143,343 **Philharmonia (Orchestra)** † (1/1, F/S)  
Four hours in rehearsal per week.
- MUS 149,349 **College Choir (Touring)** † (\*1/2, F/S)  
*\*Ordinarily one credit first semester; two credits second semester.*  
Five hours in rehearsal per week.
- 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 rehearsal per week; some outside rehearsal. Permission of instructor.
- 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 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. May be taken for credit or for requirement. Permission of instructor.
- MUS 457, 458 **Chamber Ensemble** (1/1, F/S)  
Ensembles, organized to include interested students. Small groups rehearse three hours per week. Standard literature for handbells, per-cussion, strings, etc., is studied with a view toward public performance during the year.
- Music Education: Instrumental and Piano Classes**
- 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 **String 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, 2 class hours, 3 hours of practice. Prerequisite: MED 214.

**MED 249, 250 Keyboard Skills** (2/2, F/S)

Functional piano class required of music ed piano and organ majors; two-semester sequence. Emphasis: sight reading, harmonization, transposition, accompaniment, score reading, improvisation. Jury exam. Six hours weekly practice. Prerequisite: Piano level 237.

**Music History  
and Literature**

**MHS 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.

**MHS 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.

**MHS 222 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.
- Music Methods and Techniques**
- 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 School of Music Handbook for detailed explanation of Field Experience and other Certification requirements.)
- 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 upon preparation to teach according to the New York State Learning Standards for the Arts.
- MED 356 Voice Pedagogy** (2, S01)  
Methods of voice production and development as preparation for teaching; emphasis on teaching and evaluation. Attention to proper selection of music. Two class hours per week; junior and senior year.
- MED 405 Student Teaching in Music** (9, F)  
Practical experience teaching music in public schools. Two placements of approximately six 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** (3, F)  
Seminar during and following student teaching, dealing with effective teaching practices including problems of motivation, group management, curriculum development, and musical education goals.
- MED 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.

**MUS 219, 220 Foreign Language Diction** (1/1, F/S)  
Basic diction facility in English, Italian, German, French. Required of voice majors (any curriculum); elective for others. Two class meetings per week.

**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. Prereq: MUS 229.

**MUS 477 Piano Pedagogy I** (2, F01)  
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, S02)  
Practicum for teaching community students, with presentation of a public recital for children and a masterclass for adults at end of the semester. Class Piano 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 479 Piano Literature** (2, S01)  
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.

**MUS 480 Organ Literature and Pedagogy** (2, OD)  
A survey of organ repertoire from the middle ages to the present, and an examination of teaching methods, materials, and technical approaches for the organ. Guided teaching in private and class settings. Required for organ performance majors.

**MUS 489, 490 Advanced Conducting** (1/1, OD)  
Preparation of material for a major choral or instrumental ensemble and actual experience directing the ensemble. One class hour and one ensemble per week. Prerequisites: MUS 229, 329, and 430, and agreement of ensemble director. Applied music fee is assessed.

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

**MUS 395 Special Topics** (1-3, OD)

**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 of instructor.
- 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. Prereq: MTH 227; corequisite: MTH 226, or permission.
- MUS 250 Music and Christian Perspective** (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.
- MTH 325 Theory III** (3, F)  
Harmonic materials of the nineteenth century. Analysis of literature to Debussy. Form study and original composition. Prerequisite: MTH 226; corequisite: MTH 327, or permission of instructor.
- MTH 326 Theory IV** (3, S)  
Analysis and composition of eighteenth century counterpoint, and music of the twentieth century. Prerequisite: MTH 325; corequisite: 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. Prerequisite: MTH 228; Corequisite: MTH 325, or permission.
- MTH 328 Aural Skills IV** (1, S)  
Sight singing, ear-training and dictation using advanced chromatic and twentieth century materials. Two hours per week, plus independent computer- and tutor-assisted instruction. Prerequisite: MTH 327; corequisite: MTH 326, or permission of instructor.
- MTH 358 Sixteenth Century Counterpoint** (3, F01)  
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, F00)  
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 465 Advanced Keyboard** (2, OD)  
Keyboard drill in prepared and sight work: melody harmonization, realization of basses, modulation, transposition, score reduction. Emphasis on extemporization in the styles of composers for keyboard.
- MTH 467 Theory and Analysis of Twentieth Century Music** (3, OD)  
Study of techniques for the analysis of 20th century music, including set theory and serialism. Introduction to analytical systems of Schenker, Hindemith, Forte, and others. Prerequisite: MTH 326.
- Composition** **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.

**MTH 368 Intermediate Composition and Orchestration** (2, S)  
Continuation of MTH 367.

**MTH 375 Synthesizer/Computer Applications** (2, OD)  
Introduction to electronic musical aesthetics, synthesis, and MIDI techniques. Hands-on composition projects utilizing computers and synthesizers. Prerequisite: MTH 367.

**MTH 469, 470, 471, 472 Advanced Composition** (2, 2, OD)  
Advanced writing in the larger forms and media. Public performance expected. Prerequisites: MTH 367 and MTH 368.

### Applied music

Information on the numbering system, credit assignment, and graduation requirements in applied music for BMus majors is contained in the Music Student Handbook.

The following descriptions of technique and repertoire are representative, indicating general outlines for study which may be adjusted to meet the needs of each student. **Only listings for the first year are given**, as follows: Level 230- is for first year music education majors, 240- for first year performance majors. Repertoire for Level 220- represents prerequisite attainment for entrance into the major. Any deficiencies must be made up in the first year of study.

Representative repertoire for the remaining levels is outlined in the Music Student Handbook.

### KEYBOARD

#### Class Piano

Elementary and intermediate piano, taught in six semesters of Class Piano. One hour class, six hours practice weekly. Emphasis: 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.

**CLPI 110 Class Piano 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.

**CLPI 112 Class Piano II** (1, F&S)  
Basic work as in CLPI 110-111; pedaling and phrasing. Easier major scales, 2 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.

**CLPI 216 Class Piano III** (1, F&S)  
Easier major scales, hands together, 2 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.

**CLPI 220, 221 Class Piano 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.

**CLPI 222, 225 Class Piano 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; 4-part transposition. Repertoire: easier Bach inventions, allegro sonatina movement.

**CLPI 226, 227 Class Piano 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.

**Private Piano** MAP 754 (220-227) **Private Piano**

Review basic technique, rhythm, fingering, articulation, pedaling, tone conception, and practice technique. Major/minor scales and arpeggios, 4 rhythms. Clark technique; Czerny, op. 299; Heller studies. Bach short preludes and fugues, easy 2-part Inventions. Sonatinas and easy classic sonatas. Short pieces by Chopin, Mendelssohn, Bartok, Kabalevsky.

MAP 754 (230-237) **Private Piano**

Develop goals and techniques of 220 to 227. Voicing, phrasing, intelligent reading of composer's score. "Hanon Revisited," Cramer studies. Bach 2-part and easier 3-part Inventions; easier preludes and fugues, WTC I. Haydn, Mozart, easier Beethoven sonatas (e.g. op. 14 no. 1, 2; op. 10 no. 1). Short pieces by Chopin, Schumann, Bartok.

MAP 754 (240-247) **Private Piano**

Scales (including melodic minor) and arpeggios (including 7th chords) in various rhythms, dynamics, articulations. "Hanon Revisited," Clementi Gradus. Bach 3-part Inventions, WTC. Classic sonatas such as Beethoven, op. 2 no. 1, Schubert, Chopin, Schumann, Bartok, Prokofiev; pieces or easier cycles.

**Organ**

Organ study should begin only after a piano technique adequate for Bach Inventions and easier Beethoven, Haydn, or Mozart sonatas has been acquired. Works of composers listed below are appropriate. Specific repertoire requirements will be determined individually.

MAP 752 (230-237) **Organ**

Instruction books such as Davis. Basic study of organ touch, phrasing, articulation, score preparation, practice. Simpler pieces in various styles including Dupre chorale preludes; Rheinberger trios; Bach chorale preludes; little preludes and fugues.

MAP 752 (240-247) **Organ**

More advanced pedal and manual studies, trios, hymn and chorale preludes, preludes, fugues. Easier pieces of Buxtehude, Bach, Brahms, Langlais, Near, Walcha, Willan. Registration; performance practice and historical styles; hymn playing with transposition.

**Harpsichord**

Harpsichord study should begin only after a piano technique adequate for Bach Inventions and easier Beethoven, Haydn, or Mozart sonatas has been acquired.

MAP 749 (230-237) **Harpsichord**

Instruction books such as L'Art de toucher Le Clavecin by Couperin and A First Harpsichord Book by Ignor Kipnis. Basic study of harpsichord touch, phrasing, and articulation. Easier pieces by Rameau, Scarlatti, Byrd, and others.

MAP 749 (240-247) **Harpsichord**

Simple figured bass realization, Bach WTC, Scarlatti Sonatas and other repertoire of comparable difficulty, performance practice and historical styles.

**VOICE****Class Voice** CLVO 112 **Class Voice**

(1, F&amp;S)

Study of posture, breath control, tone production, and diction. Text-



book used. Includes both group and individual singing of simple vocalises and songs in English. Hearing required. 6 hours practice.

**CLVO 116 Class Voice** (1, F&S)  
Continued study of basic vocal techniques. Emphasis on individual singing of vocalises and songs in English. Introduction to Italian diction. Hearing required. 6 hours practice.

**Private Voice** MAP 764 (220-227) **Private Voice**  
Refinement of vocal technique, including posture, breath control, tone production, and diction. English art songs and easier Italian art songs.

MAP 764 (230-237) **Private Voice**  
Study of English and Italian art songs. Use of folk, Renaissance, Baroque, classical, and contemporary literature. Vocal techniques such as Vaccai and Sieber.

MAP 764 (240-247) **Private Voice**  
Addition to the German repertory, especially from the classical and romantic periods. Such composers as Mozart, Schubert, Beethoven, Schumann, and Brahms. Concentration on vocal technique emphasizing maximum agility, flexibility, and velocity.

### STRING INSTRUMENTS

**Violin** MAP 762 (220-227) **Violin**  
Scales; Sevcik, op. 4 and op. 40; Kayser, op. 20; recital pieces and sonatas (e.g. Beethoven, Romances; Grieg, Sonata in F Major); concertos by Nardini; Viotti, Vivaldi.

MAP 762 (230-237) **Violin**  
Scales; Sevcik, op. 8; Kreutzer; Mazas; recital pieces and sonatas (e.g. Kreisler, Schubert, Handel); concertos: Bach, Haydn, Vaughn Williams.

MAP 762 (240-247) **Violin**  
Scales; Schradiek, Fiorillo, Mazas; orchestral excerpts; recital pieces, sonatas, and concertos: Bach, Haydn, Mozart, Kabalevsky.

**Viola** MAP 760 (220-227) **Viola**  
Scales; Sevcik, op. 8; Kreutzer; Mazas; recital pieces, sonatas, concertos: Handoshkin, Vivaldi.

MAP 760 (230-237) **Viola**  
Scales; Sevcik, op. 8; Kreutzer; Mazas; recital pieces, sonatas, concertos: Bloch, C.P.E. Bach, Handel, Lalo.

MAP 760 (240-247) **Viola**  
Scales; Mogill, advanced studies; Schradiek; Fiorillo; recital pieces, sonatas, concertos: Mozart, Regner, Haydn, Hovhaness.

**Violoncello** MAP 744 (220-227) **Violoncello**  
Scales; Klengal, Technical Studies; Popper, op. 76; recital pieces, sonatas, concertos: Vaughan Williams, Davidoff, Goltermann, Romberg.

MAP 744 (230-237) **Violoncello**  
Scales; Klengal, Technical Studies, bk. 2; Popper, op. 73; recital pieces, sonatas, concertos: Beethoven, Mendelssohn, Boccherini, Vivaldi.

MAP 744 (240-247) **Violoncello**  
Scales; Cossman etudes; Duport; orchestral excerpts; recital pieces, sonatas, concertos: Schumann, Dohnanyi, Tartini, J.S. Bach.

**String Bass** MAP 768 (220-227) **String Bass**  
Nanny or Simandl; Storch-Hrabe, 57 Studies; Sturm, op. 20; recital pieces and sonatas: Massanet, Marcello, Zimmerman.

MAP 768 (230-237) **String Bass**  
Nanny or Simandl; Hrabe, 86 Etudes; Sturm, op. 20; recital pieces and sonatas: Faure, Corelli.

MAP 768 (240-247) **String Bass**  
Nanny or Simandl; orchestral excerpts; recital pieces and sonatas: Koussevitsky, Bach, Eccles.

**Guitar** Lessons will be tailored to each student's individual needs and goals with emphasis on reading skills, techniques, repertoire development, tone development, performance, and personal/objective evaluation. A recording scholarship (the recording and production of a professional compact disc) will be awarded, through jury selection, to guitar performance and music education majors who have demonstrated excellence in achievement at the completion of their studies.

MAP 763 (220-227) **Private Guitar**  
Scales, arpeggios, sight-reading skills, basic improvisation, methods from Giuliani, Sor, and Brouwer.

MAP 763 (230-237) **Private Guitar**  
Scales, arpeggios, sight-reading skills, intermediate improvisation, Villa-lobos preludes, Brouwer studies, Ponce preludes.

MAP 763 (240-247) **Private Guitar**  
Bach suites, Villa-lobos etudes, Sor sonatas, Ponce sonatas.

## BRASS INSTRUMENTS

**Trumpet** MAP 758 (220-227) **Trumpet**  
Arban; Bousquet, Celebrated Studies; Clarke, Technical Studies, Clodomir, 20 Studies; Lillya, Trumpet Technique; Williams; solos by DeBoeck, Goeyens, Klein, Whitney, others.

MAP 758 (240-247) **Trumpet**  
Arban Bordogni, 24 Vocalises; Brandt, Studies for the Orchestral Trumpeter; Chavanne, 25 Etudes Characteristics; daily drills and technical studies; Clarke; solos by Delmas, Hummel, L. Mozart, Purcell, Thome, Vivaldi, others; transposition.

**French Horn** MAP 748 (220-227) **French Horn**  
Pottag-Andraud melodious and technical studies. Additional exercises from Maxime-Alphonse, Gallay, Kopprasch; solos from the Mason Jones collection or similar editions. Mozart, "Concert Rondo"; Handel sonatas; Saint-Saens, "Romance"; Glazounov, "Reverie."

MAP 748 (230-237) **French Horn**  
Pottag-Andraud book II; Gallay and Cugnot; discussion and review of "The Art of French Horn Playing," Farkas. Solos on a level with Schumann, "Adagio-Allegro"; Mozart, Concerti Nos. 1 and 3; "Dukas Villanelle." Study of transposition in selected orchestra excerpts.

MAP 748 (240-247) **French Horn**  
Kopprasch, 60 Studies, completed. Transposition studies; solos by Strauss, Mozart, Heiden, Francaix, Glazounov; Pottag orchestral excerpts.

**Trombone** MAP 756 (220-227) **Trombone**  
Remington continued. Arban-Randall method. Etudes of Slama, Kopprasch. Rochut-Bordogni etudes, book I. Solos from a level of difficulty comparable to Barat, "Andante and Allegro." Pryor and Clarke easier solos.

**MAP 756 (230-237) Trombone**

Bordogni etudes continued; legato studies. Arban, Blazhevich, Slama and Kopprasch continued. Blume studies, F-attachment studies off Fote and Fink. Solos by Bozza, Vivaldi, Handel, Galliard. Jazz duets and studies.

**MAP 756 (240-247) Trombone**

Legato studies from Bordogni etudes, book II. Clef studies continued. Ostrander F-attachment studies. Solos by Bach-Beversdorf, Barat, Cimeria, Handel and others. Duets by Blazhevich and others. Bass trombone supplemental.

**Baritone Horn-  
Euphonium****MAP 740 (220-227) Baritone Horn-Euphonium**

Arban studies continued. Mantia, Trombone Virtuoso. Rochut-Bordogni book I. Blazhevich clef studies. Transcription of solos by Berlioz, Bach, Handel, Cowell. Double and triple tonguing studies.

**MAP 740 (230-237) Baritone Horn-Euphonium**

Continued emphasis on clef studies. Rochut-Bordogni book II. Solos by Sanders, Barat, Balay, Galliard; solo material adapted from wind sonatas.

**MAP 740 (240-247) Baritone Horn-Euphonium**

Completion of Rochut legato studies; Clarke characteristic studies or similar treble clef work; solos by Bach, Blazevich, Clarke, Mozart, Vivaldi, others; study of trombone technique supplemental.

**Tuba****MAP 759 (220-227) Tuba**

Cimeria etudes. Scale studies. Slama etudes. Solos from works of Bernstein, Mussorgsky, Handel, Wagner, Bach.

**MAP 759 (230-237) Tuba**

Tyrrel advanced studies for tuba. Bell-Colin routines. Hartley sonatina. Solos by Barat, Bozza. Transcriptions from works of Bach, Mozart, Beethoven.

**MAP 759 (240-247) Tuba**

Kopprasch studies. Blazhevich studies. Velocity studies of scales, arpeggios, intervals. Solos by Bach, Handel, Hartley, McKay, Bottje, Nelhybel, others. Multiple tonguing studies.

**WOODWIND INSTRUMENTS****Flute****MAP 746 (220-227) Flute**

Major scales. Hugues, 40 Studies, op. 101; Koehler, 12 Medium Studies, op. 33, bk. 1 and 2; repertoire: Handel Sonatas III, V; Bach, Polonaise and Badinage; Mozart, Andante; Gluck, Minuet and Dance.

**MAP 746 (230-237) Flute**

All major and minor scales. Maquarre, daily exercises; Andersen, etudes, op. 33; Berbiguier, 18 Etudes for Flute. Repertoire: Handel, Sonatas I-VII; Boehm, Souvenir Des Alpes; Godard, Legend Pastorale; Mozart, sonatas; Debussy, Syrinx.

**MAP 746 (240-247) Flute**

Major and minor scales and arpeggios. 25 flute concert studios from J.S. Bach's works and famous flute solos; Moyses, De La Sonorite; Andersen, 18 Studies for Flute, op. 41. Repertoire: Hindemith, sonata; Bach, Sona-tas II, III, IV; Mozart, Concerto in D; Faure, Fantasie; Honegger, Danse de la Chevre.

**Oboe****MAP 750 (220-227) Oboe**

Consolidation of basic technique, tone and tone control. Major and minor scales, 2 octaves, 4 rhythms. Fundamentals of reed making. Barrett method. Repertoire: Telemann, concerto in F minor; Albinoni, Concerto in Bb; Geminiani, Sonata in E minor.

**MAP 750 (230-237) Oboe**

Continuation of fundamentals in previous level. Major and chromatic scales. Gekeler, Studies. Repertoire: Handel, Bouree; Rameau, Regaudon; Amani, minuet.

**MAP 750 (240-247) Oboe**

Refinement of technique; tone and tone control. Reedmaking. Major and minor scales and arpeggios. Barrett method. Repertoire: Marcello, sonatas; Schumann, Three Romances; Jacob, concerto.

**Clarinet** **MAP 745 (220-227) Clarinet**

Tone, tone control, alternate fingers, intonational control. Major scales, 2 octaves, 4 rhythms, moderate speed. Repertoire: Vaughan Williams, Six Folk Songs; Wanhall, sonatas; Debussy, Petite Piece.

**MAP 745 (230-237) Clarinet**

Consolidation of basic technique, tone and tone control, balance of registers. Klose: major, minor, chromatic scales, thirds. Rose, 40 Etudes. Repertoire: classical concerti; Handel, Sonata, op. 1 no. 8; Schumann, Fantasy Pieces; Finzi, Five Bagatelles.

**MAP 745 (240-247) Clarinet**

Refinement of tone, tone control and technique, control of partials. Reed adjustment. Interval and arpeggios. Jeanjean, Graduated Melodic Studies bk. II and III or comparable studies. Repertoire: Hindemith, sonata; Rimsky-Korsakov, concerto; Weber, concerti.

**Saxophone** **MAP 770 (220-227) Saxophone**

Tone and tone control, alternate fingerings, intonational control. Major and chromatic scales, full normal range, four rhythms at moderate speed. Rossari, 53 Melodious Etudes, bk. 1. Repertoire: Lane, Suite; Rameau-Rascher, Regaudon; Bach-Rascher, Two Preludes.

**MAP 770 (230-237) Saxophone**

Consolidation of basic technique, tone and tone control. Commence work on altissimo register. Teal, Saxophonist's Workbook. Repertoire: Handel, Sonata no. 3 (Violin); Tuthill, sonata.

**MAP 770 (240-247) Saxophone**

Refinement of tone, tone control and technique. Usable range to altissimo G. Jazz studies. Rascher, 24 Intermezzi or comparable etudes. Repertoire: Eccles, sonata; Heiden, sonata.

**Bassoon** **MAP 742 (220-227) Bassoon**

Tone and tone control, principal alternate fingerings, intonational control. Major scales, 2 octaves, 4 rhythms moderate speed. Weissenborn method or Vaulet, 20 Studies. Repertoire: Falliard, 6 Sonatas; Benson, Song and Dance; Merci, Sonata in G minor.

**MAP 742 (230-237) Bassoon**

Consolidation of basic technique, tone and tone control. Tenor clef. Reed adjustment. Jancourt, 26 Melodic Studies, op. 15; Milde, Concert Studies, op. 26. Repertoire: Vivaldi, concerti; Hertel, concerto; Burrill Phillips, concert piece.

**PERCUSSION INSTRUMENTS****Percussion** **MAP 753 (220-227) Percussion Instruments**

Snare drum emphasis. Basic mallet studies. Introduction to timpani. Study of tone production and tuning. Solo and studies by Harr, Ostling, Gardner, others.

**MAP 753 (230-237) Percussion Instruments**

Snare drum studies from Goldenberg, Pare, Stone. Timpani studies from Goodman, Ludwig. Mallet studies from Gornston, Goldenberg. Etudes of Firth. Solos by McKenzie, Schinstein, Handel, others.

**MAP 753 (240-247) Percussion Instruments**

Continuation of Goldenberg and others. Emphasis on tone production, mallet selection. Introduction to drum set studies from Beck, Dahlgren, Morello. Solos and etudes by Tilles, Kraft, Peters, Bach, Brahms, Colgrass, others.



*The study of art at Houghton enables students to develop an understanding of the meaning, both past and present, of art in society.*

# Physical Education/ Exercise Studies & Recreation/Leisure

**Faculty** Catherine B. Daggett, Thomas R. Kettelkamp, Trini Rangel, Patty-Jeanne Slaughter, Robert B. Smalley, William R. Swanson, Timothy Trezise, Jo-Anne O. Young, Brad Zarges

**Telephone** (716) 567-9645  
(800) 777-2556

**Majors** Physical Education (teaching K-12: 37 hours; 12 hours in pre/co-requisites), Physical Education (non-teaching: 24 hours; 8 hours in pre/co-requisite) Physical Education (athletic training: 38 hours; 18 hours in pre/co-requisites) Physical Education (physical fitness: 36 hours; 18 hours in pre/co-requisites) Recreation (therapeutic option 31 hours; 11 hours in pre/co-requisites), Recreation (outdoor education/camp administration option: 32 hours; 8 hours in pre/co-requisites)

**Minors** Physical Education (16 hours); Athletic Training (15 hours), Recreation (14 hours), Equestrian Studies (14 hours), Pre-Physical Therapy Athletic Training\* (13 hours)  
\*This minor available only to those completing the Pre-PT Biology BA

**Pre-Physical Therapy Option**

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 physical therapy tract. For a complete listing of the requirements of the pre-physical therapy track, please look in the Biology section of this catalog.

**IS courses**

**Level I:**

- 1 PHED 101 Lifetime Wellness
- 1 PHED 102 Physical Education (activity)
- Alternatives to PHED 102:
  - REC 102A Initiatives ..... 1
  - REC 102B Backpacking ..... 1
  - REC 109 Highlander Adventure Program ..... 2
  - REC 218 Winter Ski Outing ..... 1
  - REC 228 Trip Experience ..... 1-3
  - HRSM 113 Horsemanship I ..... 1
  - PHED 244 Instructor's Course in Red Cross
    - Water Safety ..... 2

All other PHED 102 courses are .5 hr. credit, thus students must take two of these courses.

All freshmen are required to take PHED 101 and 102, or PHED 103 and 104. Those who are seriously disabled will be exempted upon the presentation of a statement from the Houghton College physician. Persons majoring in physical education may waive PHED 101 and 102.

**Level II:**

None

**Teaching Option**

**Physical Education Teaching Option**

The physical education major leading to New York State teacher certification requires 37 hours in physical education courses and 27 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
	<b>Total:</b>	<b>12</b>

**Core Requirements**

PHED 212	Foundations of Physical Education .....	2
PHED 237	Holistic Health .....	3
PHED 239	Principles & Practices of Coaching .....	2
PHED 246	Care and Prevention of Injuries .....	2
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 Evaluation in Phys. Education .....	3
PHED 330	Physiology of Exercise .....	3
PHED 341	Kinesiology .....	3
PHED 401	Organization and Management of Phys. Education .....	3
	<b>Total:</b>	<b>28</b>

**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 (1 credit hr.) chosen from the following:

REC 102A	Initiatives .....	1
REC 227	Outdoor Leadership Training .....	3
REC 266	Outdoor Living Skills .....	2
REC 330	Methods/Mat'ls of Outdoor Educ .....	3
PHED 220	Adventure Sports .....	3

And

REC 252	Teaching Lifetime Sports .....	1 <b>or</b>
PHED 220	Adventure Sports .....	3
	<b>Total:</b>	<b>9</b>

**Education Requirements**

EDUC 217	History and Philosophy of Education .....	3
EDUC 240	Teaching in Urban America .....	3
EDUC 313	Language & Literacy in the Content Area <b>or</b>	
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	Issues Seminar In Physical Education .....	2
EDUC xxx	Student Teaching .....	12
	<b>Total:</b>	<b>30</b>

**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 181	Human Anatomy & Physiology .....	4
	<b>Total:</b>	<b>8</b>

**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 "core requirements" .....	7
	<b>Total:</b>	<b>18</b>

**Activities**

Six hours are required from any of the courses listed under "activities" for the physical education teaching option.

**Minor**

The physical education minor (16 hours) requires Lifetime Wellness (PHED 101) and Physical Education (PHED 102) as prerequisites to all other courses, plus Holistic Health (PHED 237), Foundations of Physical Educa-

tion (PHED 212), and 11 additional hours from courses numbered above 211. Not less than 2 of these 11 or more than 5 may be in activity laboratories. Fundamentals of Biology (BIOL 103) is highly recommended.

**AT Option Athletic Training**

The athletic training option is a non-teaching option requiring 38 credits in physical education. Also included is a 10-credit internship and a two-credit seminar the senior year. Students concentrating in athletic training must log 500 hours of practical work with the department's certified trainer prior to the senior internship.

- A. Students must file a formal application for the athletic training option with the Department of Physical Education/Exercise Studies & Recreation/Leisure during the second semester of the freshman year. Prerequisites for applying include 50 hours of clinical observation in the athletic training room and a 2.0 GPA.
- B. A minimum of one pre-season and one fall semester (done in the same school year) of full-time work in the athletic training room (or equivalent summer experience as approved by the advisor) must be completed prior to the senior internship.

Required competencies: Standard first aid and CPR. A minor is required.

Our athletic training program is currently working to seek CAAHEP accreditation which will allow students to sit for the NATABOC certification examination upon completion of the athletic training major. Students graduating prior to 2004 are eligible to sit for the NATABOC exam regardless of accreditation status. After 2004, students must either complete an accredited program or may complete a non-accredited program, then continue into graduate study in an accredited program.

**Athletic Training Option**

**Pre-/Co-requisites**

BIOL 103	Fundamentals of Biology .....	4
BIOL 217,218	Human Anatomy and Physiology .....	8
CHEM 207	Nutrition .....	3
PSY 111	Introduction to Psychology .....	3
	<b>Total:</b>	<b>18</b>

**Core Requirements**

PHED 212	Foundations of Physical Education .....	2
PHED 237	Holistic Health .....	3
PHED 246	Care and Prevention of Injuries .....	2
PHED 247	Recognition & Evaluation of Athletic Injuries .....	3
<i>Either:</i>		
PHED 276	Motor Development and Learning or .....	(3)
PHED 350	Health and Physical Fitness for Senior Adults .....	(2)
PHED 320	Measurement and Evaluation in Physical Educ .....	3
PHED 330	Physiology of Exercise .....	3
PHED 341	Kinesiology .....	3
PHED 347	Therapeutic Modalities .....	3
PHED 348	Therapeutic Exercise Mgmt. of Injuries .....	3
PHED 401	Organization and Management of Phys. Ed. ....	3
PHED 223, 224, 311, or 312	Practicum #1, #2, #3 or #4 .....	6
PHED xxx	Swimming (PHED 102 or 228 or 265) .....	1
	Elective Activity .....	1
PHED 422	Internship .....	10
PHED 428	Issues Seminar in Athletic Training .....	2
	<b>Total:</b>	<b>50 or 51</b>

Required competencies: certificates in first aid and CPR.

**Athletic Training Minor**

A student who is interested in a physical education minor with a focus in athletic training is advised to take 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 212	Foundations of Physical Education .....	2
PHED 246	Care and Prevention of Injuries .....	2
PHED 247	Recognition and Evaluation of Athletic Injuries .....	3
6 hours from the following courses:		
PHED 347	Therapeutic Modalities or PHED 348 Therapeutic Exercise Mgmt. of Injuries .....	3
PHED 330	Physiology of Exercise or PHED 341 Kinesiology .....	3
Choose 2 hours of electives from any Physical Education theory course 211 or above .....		2
<b>Total:</b>		<b>15</b>

**Physical Fitness****PF Option**

The physical fitness option is a non-teaching option requiring 34 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 3 to 12-credit internship.

**Physical Fitness Option****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
<b>Total:</b>		<b>18</b>

**Core Requirements**

PHED 212	Foundations of Physical Education .....	2
PHED 225	Teaching Elementary P.E. ....	3
PHED 226	Movement and Rhythmic Fundamentals .....	3
PHED 237	Holistic Health .....	3
PHED 246	Care and Prevention of Injuries .....	2
PHED 248	Adaptive P.E. and Fitness Programs .....	2
PHED 276	Motor Development and Learning .....	3
PHED 350	Health and Physical Fitness for Senior Adults .....	2
PHED 320	Measurement and Evaluation in Phys. Ed. ....	3
PHED 330	Physiology of Exercise .....	3
PHED 341	Kinesiology .....	3
PHED 401	Organization and Management of Phys. Ed. & Athletics .....	3
PHED XXX	Swimming (PHED 102 or 228 or 265) .....	1
REC 266	Outdoor Living Skills .....	2
<b>Total:</b>		<b>36</b>

PHED 420	Internship .....	4-12
or PHED 423	.....	1
PHED 424	.....	1
PHED 426	.....	2
Competency in CPR. Competency in 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 who are interested in coaching registration should take:

PHED 239	Principles and Practices of Coaching .....	2
PHED 246	Care and Prevention of Injuries .....	2
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
<b>Total:</b>		<b>14</b>

- Courses**    **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, 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 gen. ed. 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 PHED 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** (3, M)  
 Experiential learning of a variety of adventure sports (backpacking, climbing, mountain biking, kayaking/rafting) in canyons and mountains of the Rocky Mountain region; teaching experience and leadership development, fitness training for lifetime benefits; personal and spiritual growth; environmental stewardship.
- PHED 221 Educational Gymnastics I** (Activity Lab) (1, F00)  
 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, S01)  
 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 223 Athletic Training Practicum I** (2, F&S)  
 Combination of experience in athletic training room and athletic game coverage (150 hours). Proficiency: ankle and knee anatomy and function; ability to find bony landmarks and soft tissue structures and to perform proper stress tests to these tissues. Prerequisite: 50 hours of observation in the training room and permission of instructor.
- PHED 224 Athletic Training Practicum II** (2, F&S)  
 Combination of experience in athletic training room and athletic game coverage (150 hours). Proficiency: shoulder and shoulder girdle anatomy and function; ability to find bony landmarks and soft tissue structures and to perform proper stress tests to these tissues. Permission of instructor required.
- 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, May)  
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.
- 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 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).
- PHED 246 Care and Prevention of Injuries** (2,F)  
Basic principles of prevention, emergency care, documentation. Joint and muscle support for common athletic injuries. Introduction to professional rules and responsibilities; sports medicine team; drugs and medications and legal aspects of athletic training. Prerequisite for majors: BIOL 103 or 151.
- PHED 247 Recognition and Evaluation of Athletic Injuries** (3, S01)  
History; observation; palpation; active and passive range of motion; muscle, neurological, and functional tests; postural assessment.
- PHED 248 Adaptive P.E. and Fitness** (2, S01)  
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, F00)  
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.
- PHED 252 Teaching Lifetime Sports II** (Activity Lab) (1, S01)  
Skills and methods of teaching. Students will examine preparatory activities and exercises, mechanical analysis of skills for selected sports.

- PHED 261 Teaching Team Sports I (Activity Lab)** (1, F01)  
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, S02)  
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 yrs 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. Emphasis: 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,S)  
Clinical observations in physical therapy clinics and the college's athletic training room. Requires 25 hours of observation in each of three clinic settings: orthopedics, pediatrics, and geriatrics, with an additional 75 hours in the training room. Athletic training experience focuses on injury prevention, recognition, and assessment plus preventative taping and bracing techniques. Pre-PT majors only. Pre-/Co-Req: PHED 247
- PHED 290 Contemporary Issues in Sport** (3, May)  
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 311 Athletic Training Practicum III** (2, F)  
Combination of experience in athletic training room and athletic game coverage (150 hours). Proficiency: elbow and wrist anatomy and function; ability to find bony landmarks and soft tissue structures and to perform proper stress tests to these tissues. Permission required.
- PHED 312 Athletic Training Practicum IV** (2, S)  
Combination of experience in athletic training room and athletic game coverage (150 hours). Proficiency: spine and hip anatomy and function; ability to find bony landmarks and soft tissue structures and to perform proper stress tests to these tissues. Permission of instructor required.
- PHED 315 Psychosocial Aspects of Physical Education and Sport** (2)  
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, F01)  
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, F)

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, S02)

The analysis of the musculoskeletal system and its interrelationship with human movement. Prerequisites: BIOL 103 and BIOL 217,218.

**PHED 347 Therapeutic Modalities** (3, S02)

Analysis of the physiological effects produced by various modalities and their application. Examination of rehabilitation protocols and rationale for musculoskeletal injuries.

**PHED 348 Therapeutic Exercise Management of Injuries** (3, S01)

Mechanisms, signs, symptoms, immediate and long-term rehabilitation procedures for injuries affecting extremities and axial skeleton. Rehabilitation procedures focus on stretching, joint mobilization, open vs. closed kinetic chain activities, therapeutic exercises and exercise devices.

**PHED 350 Health and Physical Fitness for Senior Adults** (2, S02)

Holistic health and wellness of adults 55 years and older. Emphasis: physical fitness, program planning, development, evaluation; principles and practices of leadership.

**PHED 381 Pre-Physical Therapy Field Experience II** (2,F,S)

Clinical observations in physical therapy clinics and the college's athletic training room. Requires 25 hours of observation in each of three clinic settings: spinal rehab, cardiac rehab, and respiratory rehab, with an additional 75 hours in the training room. Athletic training experience focuses on record-keeping and developing and implementation of rehab programs. Pre-PT majors only. Pre-/Corequisites: PHED 347 or 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 N-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. department policy on "Employment and Activities While Student Teaching." Student must have overall GPA of 2.5.**

**PHED 411 Issues Seminar in Physical Education** (2 F&S)

Critical analysis and synthesis of student teaching experience and of crucial issues in education.

**PHED 420 Internship: Physical Fitness** (1-12, F&S)

Observation and practical experience in a public or private agency. Off-campus assignment under the direction of skilled professionals. NOTE: Students doing the Physical Fitness Option must complete a total of 4 credit hours in PHED 420, or a total of 4 credit hours from PHED 423, PHED 424, and PHED 426. The 4 credit hours in PHED 420 includes one credit hour of topics in current issues. Overall GPA of 2.5 required.

- PHED 422 Internship: Athletic Training** (10, F&S)  
Observation and practical experience in a public or private agency. Off campus assignment under the direction of skilled professionals. 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 2 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 2 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 428 Issues Seminar in Athletic Training** (2, F&S)  
Critical analysis and synthesis of critical issues in the area of health and physical fitness. Includes career guidance. Corequisite: PHED 422.
- 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)

## Recreation & Leisure Studies

The major in recreation and leisure studies, consisting of at least 32 hours, provides two option areas: therapeutic recreation services and outdoor education/ camp administration. All students will take a core consisting of REC 220, 221, 300, and 406 plus 3 hours of elective within the REC offerings.

The practicum provides opportunity for applying theory and practicing professionally-related activities. A minor is required with the recreation major.

### Core Requirements

REC 220 Recreation, Leisure and Society .....	3
REC 221 Introduction to Leisure Service Delivery Systems .....	3
REC 300 Program Planning and Evaluation .....	3
REC 406 Recreation Practicum .....	3
REC xxx (Recreation elective) .....	3
— Certification in CPR and Standard First Aid .....	-
<b>Total:</b>	<b>15</b>

### Therapeutic Recreation Option

*(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 181 Anatomy and Physiology .....	4
<b>Total:</b>	<b>11</b>

### Theory Requirements

REC 248 Foundations of Therapeutic Recreation .....	3
REC 303 Methods and Materials of Therapeutic Recreation .....	3
REC 412 Seminar: Issues in Therapeutic Recreation .....	3
REC xxx Applied laboratories (as approved by dept. chair) .....	7
Core requirements (see above) .....	15
<b>Total:</b>	<b>31</b>

**Outdoor Education/Camp Administration Option**

## Co-requisites

BIOL 215 Local Flora and Vegetation .....	3
REC 102B Backpacking .....	1
XXX xxx (4-hr. science course with environmental emph. ....)	4
Total:	8

**Theory Requirements**

REC 301 Methods & Materials 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 Seminar: Recreation and Leisure .....	2
REC 412 Seminar: Recreation and Leisure .....	1
Core requirements (see above) .....	15
Total:	32

**Minors**

A minor in recreation and leisure studies requires 14 hours of courses numbered 211 or above, including REC 220, REC 221, and REC 411. The remaining 6 hours may be selected from any REC courses, with at least 2 hours and not more than 5 taken in activity labs. **Note: no more than 8 hours of HRSM courses may be counted towards graduation.**

**Equestrian Studies minor**

A minor in equestrian studies requires 13 or 14 hours. Students take two of these three courses:

REC 220 Leisure and Society .....	3
REC 221 Introduction to Leisure Service Delivery Systems .....	3
REC 411 Seminar .....	2

Students also take HRSM 224 Riding Instructor Certification (2) plus 6 hours of equestrian studies electives (HRSM, 211 level or above).

**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. Prereq: 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, S)

Foundations of breaking and training the young horse. Students work with the actual training of a young horse, utilizing classical principles, philosophy, and methodology. Prerequisite: REC 223 or permission.

**HRSM 325 Horsemanship: Jumping I** (2, F)  
 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.

**Recreation REC 102A Initiatives/REC 102B Backpacking** (1, F&S)  
 Physical skills and carry-over values of recreational activities. Place of recreation and leisure in Christian Life (also meets PHED 102 requirement.)

**REC 109 Highlander Adventure Program (Activity Lab) (IS)** (2, Special)  
 Two to 3 days on the initiatives course and a 7-day trip into the wilderness. Develop skills in 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 Ecotour 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.

**REC 212 Ecotourism 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.

**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 (also meets PHED 102 requirement).

**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** (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, F00)  
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, F00)  
Conditions which characterize and produce atypical individuals; diagnosis of strengths and weaknesses of the individual; prescription of procedures for appropriate activities. Prerequisites: BIOL 103, 181.
- REC 252 Teaching Lifetime Sports** (Activity Lab) (1, S01)  
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 2-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** (3, F00)  
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, OD)  
Overview of all aspects of church recreation. Bases for recreation in local church; methods and designs for implementing programs; recreation activities for churches without specialized recreation facilities.
- REC 303 Methods & Materials in Therapeutic Recreation** (3, S01)  
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 Practicum** (3 to 5, 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 Seminar: Issues in Therapeutic Recreation** (3, F01)  
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, 412 Seminar: 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)



*Ten varsity teams are fielded in six sports. Both men and women compete in soccer, basketball, track, and cross country; women also compete in field hockey and volleyball.*

# Physics and Earth Science

<b>Faculty</b>	Jeffrey P. Wolinski
<b>Adjunct</b>	John M. Andrews, Jr.
<b>Telephone</b>	(716) 567-9280 (800) 777-2556
<b>Majors</b>	Physics (BS-57 hours: 8 prerequisites, 14 math, 4 chemistry, 31 physics; BA-32 hours: 8 prerequisites, 24 physics); General Science (46 hours: 6 math, 8 each biology, chemistry, physics, and earth science, plus 8 more); Physics or Earth Science concentration in the General Science major.
<b>Minor</b>	Physics (12 hours above PHYS 152).
<b>IS courses</b>	<b>Level I:</b> 4 hours in science (with lab) chosen from specified courses listed under biology, chemistry, or these from physics and earth science: ESCI 101 Physical Geology ESCI 102 General Astronomy ESCI 212, 213 Environmental Earth Science with Lab PHYS 151 General Physics  <b>Level II:</b> 3 hours (See integrative studies science and mathematics list in academic information section.)
<b>Dual-Degree Engineering Program</b>	<p>Students desiring to enter the profession of engineering can begin their education at Houghton College by means of the dual-degree engineering program. 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 and Clarkson University in Potsdam, NY. Both of these universities offer outstanding engineering programs.</p> <p>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. While there are many advantages to the dual-degree program, one of its greatest strengths is that it combines the breadth and variety of a liberal arts education with the expertise and specialization of an engineering education.</p> <p>Another advantage to the student is the opportunity to take many introductory courses in math and science in the small-college, Christian environment provided at Houghton. These courses would be taken during the three years that a dual-degree student is at Houghton. A typical course load during that time would include General Physics I and II (PHYS 151, 152), Calculus I, II, Multivariate Calculus, and Differential Equations (MATH 181, 182, 321, 241), Chemistry I, II (CHEM 151, 152), Programming I (CSCI 211), and Introduction to Engineering (PHYS 170). Other courses that a student may take could include General Biology (BIOL 151, 152), Organic Chemistry (CHEM 241, 242), Mechanics I, II (PHYS 251, 252), Data Structures (CSCI 221), Analog Electronics (PHYS 258), and Engineering Mechanics: Statics (PHYS 175). The remainder of a student's load at Houghton would consist of major requirements and integrative studies courses. The integra-</p>

tive studies requirements at Houghton would, of course, meet humanities and/or social science requirements at the partner school.

There are a number of options available to the student interested in pursuing an engineering degree by way of Houghton College. Any questions should be directed to the Department of Physics and Earth Science.

### Physics (BS)

The BS physics major at Houghton 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. The writing of reports and oral presentations are also important parts of the major. It serves as an excellent preparation for graduate work in physics or related fields, such as engineering, astrophysics, biophysics, physical oceanography, geophysics and meteorology. More students are also using 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 for advanced courses:

PHYS 151	General Physics I + Lab .....	4
MATH 181	Calculus I .....	4
PHYS 152	General Physics II + Lab .....	4
MATH 182	Calculus II .....	4

The BS degree requires 31 hours in courses numbered 211 or above which must include:

PHYS 251	Mechanics I .....	4
PHYS 252	Mechanics II .....	3
PHYS 353	Electricity & Magnetism I .....	4
PHYS 471, 472	Advanced Projects Laboratory .....	2
PHYS 482	Physics Seminar .....	1

Required supporting courses:

MATH 241	Differential Equations .....	3
MATH 321	Multivariate Calculus .....	3
CHEM 151	General Chemistry I + Lab .....	4

Recommended supporting courses:

MATH 261	Linear Algebra .....	3
CHEM 152	General Chemistry II + Lab .....	4
CSCI 211	Programming I .....	3
CSCI 221	Data Structures (C++) .....	3
PHIL 360	History and Philosophy of Science .....	4

Advanced courses may be supplemented by independent study courses in topics including quantum mechanics, solid state physics, semiconductor physics, spectroscopy, physical optics, and particle physics.

### Physics (BA)

A major leading to a BA in physics requires a minimum of 24 hours in physics courses beyond PHYS 152 and numbered 211 or above, including two courses with labs, two hours in laboratory, and one in seminar. 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.

### General Science Major

The general science major is made up of six hours in mathematics, eight hours each in biology, chemistry, physics, and earth science (including geology [ESCI 101]) and eight or more hours additional concentration in one of the four science areas in courses numbered 211 or above.

### Adolescent (Secondary) Education

Students who intend to make a career of secondary science teaching should take a major in one of the sciences or general science and should complete their education course requirements for certification.

### Minor

A physics minor requires 12 hours of credit in physics courses above PHYS 152 and numbered 211 or above.

- PHYS 151 General Physics I** (4, F)  
 First semester of a two semester sequence. An introduction to the study of physics using calculus, including mechanics, energy, oscillations and waves, and heat. Three lecture and three laboratory hours each week. Pre- or co-requisite: MATH 181
- PHYS 152 General Physics II** (4, S)  
 Continuation of Physics 151. An introduction to the study of physics using calculus, including thermodynamics, electricity, magnetism and topics in modern physics. Three lecture and three laboratory hours each week. Prerequisite: PHYS 151.
- PHYS 170 Introduction to Engineering** (1, S)  
 An introduction to the theory and practice of engineering. The course will address the branches of engineering, requirements of the engineering professions, economics of engineering, and moral and ethical dimensions of engineering as a field of study and as a profession. An introduction to computer software for engineering, such as CAD programs, will be included. This course is required for all dual-degree, engineering students.
- PHYS 175 Engineering Mechanics: Statics** (3, F01)  
 A study of basic mechanics as it relates to the static stability of structures and other objects. Topics to be covered include the equilibrium of a particle and a rigid body, structural analysis, friction, center of gravity, and moment of inertia. This course is required or strongly recommended for most dual-degree, engineering students.
- PHYS 211 Energy: Fire to Fusion** (3, S02)  
 A conceptual overview of the concept of energy. The course will cover the theoretical basis for the concept of energy from the perspective of physics and related disciplines. The practical implications of these basic concepts will be explored in the context of the current demand for energy. Past, current and future energy sources will be addressed and compared.
- PHYS 223 Materials Science** (3, OD)  
 The physics and chemistry of engineering materials including crystalline, amorphous ceramic, polymeric and composite materials. Introductory metallurgy includes examination of the effects of processing (heat treatment and manufacturing) and service environment on microstructure and properties. Perfect and imperfect solids, phase equilibria, kinetics. CHEM 152 recommended prerequisite.
- PHYS 251 Mechanics I** (4, F00)  
 A development of classical mechanics beyond the introductory physics level. The course will focus on the dynamics of particles and rigid bodies in 1, 2 and 3 dimensions. Topics to be covered 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. MATH 241 is a recommended pre/co-requisite. Three lecture and three laboratory hours each week.
- PHYS 252 Mechanics II** (3, S01)  
 Analytical and numerical methods applied to systems of particles, rigid bodies, rotation, inertia tensor, Lagrange's equations, fluid mechanics, and chaos. MATH 261 recommended pre/co-requisite.
- PHYS 258 Analog Electronics** (4, S02)  
 Basic linear and analog circuits used in scientific instruments including DC, AC, filters, transformers, power supplies, amplifiers, and oscillators. Analysis by Kirchoff's laws and simulations using computer software. Additional topics include the operation of diodes, transistors, linear

integrated circuits, and operational amplifiers. Prerequisite: PHYS 152. Three lecture and three laboratory hours each week.

**PHYS 260 Optics** (4, S01)

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. MATH 241 is a recommended pre/co-requisite. Three lecture and three laboratory hours each week.

**PHYS 353 Electricity and Magnetism I** (4, F01)

Electrostatic and electromagnetic theory and applications. The course will begin with an overview of vector calculus for electromagnetic theory and will develop Maxwell's equations. Pre/co-requisite: MATH 321. Three lecture and three laboratory hours each week.

**PHYS 354 Electricity and Magnetism II** (3, S02)

Electromagnetic waves, propagation through plasmas, waveguides, antennas. Prerequisite: PHYS 353.

**PHYS 355 Thermal Physics** (3, F01)

Analysis of laws of thermodynamic equilibria in solid, liquid, and gaseous phases; low temperature phenomena; introduction to statistical mechanics. Prerequisite: PHYS 152.

**PHYS 361 Atomic and Molecular Physics** (3,F00)

Chemical foundations of atomic theory, quantum mechanical treatment of radiation, atomic and molecular spectra, including effects of electric and magnetic fields. Prerequisite: PHYS 251.

**PHYS 362 Nuclear and Particle Physics** (3, OD)

Topics from nuclear and particle physics. Quantum mechanical techniques will be applied to nuclear and sub-nuclear systems. The course will include an examination of the latest advances in these fields. Prerequisite: PHYS 251.

**PHYS 471, 472 Physics Project Laboratory** (1/1, F/S)

Selected projects in experimental physics to familiarize the student with current literature and research techniques.

**PHYS 482 Physics Seminar** (1, S)

Oral presentation of topics of interest in current physics journals. Prerequisite: junior or senior physics major.

**PHYS 295, 395, 495 Special Topics in Physics** (1, 2, or 3)

Introduction to areas of physics not treated in other courses. Topics have included superconductivity and IC technology.

**PHYS 391, 392, 491, 492 Independent Study** (1, 2, or 3)

**PHYS 496 Honors in Physics** (3, OD)

**Earth Science**

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 Geographic Information Systems, oceanography, glacial morphology, mineralogy, field work in geology, or appropriate AuSable courses (listed under biology).

- 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 Environmental Earth Science 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, S01)  
 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, or 3)

# Psychology and Sociology

<b>Faculty</b>	Richard D. Stegen (chair), Jonathan E. Arensen, Jayne E. Maugans, Richard B. Perkins, Daryl H. Stevenson, Cynthia S. Symons, John F. Van Wicklin, Paul D. Young
<b>Telephone</b>	(716) 567-9440 (800) 777-2556
<b>Majors</b>	Psychology (31 hours; 4 hours in pre/co-requisites), Sociology (24 hours)
<b>Minors</b>	Psychology (12 hours), Sociology (12 hours), Family Studies (15 hours)
<b>IS courses</b>	<b>Level I:</b> 3 hours chosen from offerings in economics or political science or SOC 101 Principles of Sociology SOC 243 Cultural Anthropology  <b>Level II:</b> 3 hours. See integrative studies social science list in Academic Information section.

**Psychology** 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, clinical social work, and human services in general. Others have taken appointments in academic departments. Even without further training, a 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** Introduction to Psychology (PSY 111) is prerequisite to all additional coursework in the discipline. The major for a bachelor of arts (BA degree) requires 31 hours beyond the Introduction to Psychology course. Psychology majors complete 7 hours of core requirements and then at least one course from each of the 5 secondary core areas listed below. Finally, at least three other elective courses are selected from the department's offerings.

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 6 Internship hours may count toward the minimum 31 hours for the major.

Co-requisite with the major is 4 hours of laboratory biology. At least 3 hours of 400 level psychology coursework is required.

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 3 hours.



**Primary Core Requirements**

PSY 309	Statistics .....	3
PSY 310	Experimental Methods .....	3
PSY 48X	Senior 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.

An interdisciplinary minor in Family Studies consists of 15 hours of study. (See the sociology section for a full description of the Family Studies minor.)

- 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, F00)  
 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 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. (Also listed as EDUC 219.)
- 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: 6 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)  
Analysis and synthesis of religious behavior. Comparison of major religious systems and cults in psychological framework. Personality and group dynamics in religious phenomena.
- 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 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 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, S)  
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, F00)  
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, F00)  
Physiology of nervous and glandular systems as they relate to behavior, including sensation, emotion, aggression, learning, and mental disorders. Prerequisite: four hours of biology.
- 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: permission of the department. Contact: Dr. Stevenson
- PSY 413 Professional Issues and Techniques in Psychology** (3, F)  
(West Seneca Campus only)  
Taken in conjunction with the Internship; emphasis is on professional and ethical issues, interviewing skills, and developing various research and practice skills.
- 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 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)

### **Sociology & Anthropology**

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 which 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.

**Major** Principles of Sociology (SOC 101) is prerequisite to all additional coursework in the disciplines except anthropology. A sociology major consists of 24 hours above SOC 210, including the following courses: Sociological Theory (SOC 282); Statistics (SOC 309); Social Science Research Methods (SOC 312); and The Individual and Society (SOC 351); plus 12 hours of elective sociology courses.

**Minors** A minor in sociology consists of 12 hours above SOC 210, including at least three hours numbered 300 or above (except SOC 309 Statistics), but may not include more than six hours of field experience credit.

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. Principles of Sociology (SOC 101) and Introduction to Psychology (PSY 111) are prerequisites for the minor. The minor consists of 15 hours of study. Six of the hours are required core courses: Introduction to Marriage and Family Studies (SOC 237) and Introduction to Family Systems (PSY 326). The remaining nine hours are chosen from the following courses, but may not include more than six hours of field experience credit:

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 the Coordinator of Family Studies)
SOC	394	Internship in Family Studies

(NOTE: No minor may include more than six hours of field experience credit.)

**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. Analysis 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** (3, F)  
(CDRP, see p. 101)  
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 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, S)  
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 Maasai, Kalenjin, Murle and other peoples.
- 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 330 Culture and Family (CDRP, see p. 101)** (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.
- SOC 361 Race and Ethnicity** (3, S)  
Study of the principles and processes shaping relations between racial, ethnic, and other groups. Analysis of diversity and stratification in contemporary society.
- 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 (through the Buffalo or Main Campus) integrating theory with professional practice. Requires junior or senior standing and the completion of at least 9 hours in the Family Studies minor and permission of the department. Contact: Dr. Maugans.
- SOC 394 Internship in Family Studies (WSC)** (6,F)  
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 (through the West Seneca or Main Campus) integrating theory with professional practice. Requires permission of the department. Contact: Dr. Maugans
- SOC 415 Internship in Sociology (WSC)** (6,F)  
An optional supervised experience in a sociological setting integrating theory with professional practice. By application only through the department. Contact: Dr. Maugans
- SOC 191, -2; 291, -2; 391, -2; 491, -2 Independent Study** (1, 2 or 3)
- SOC 496 Honors in Sociology** (3, S)

# Religion and Philosophy

**Faculty** Harold E. Kingdon (chair), Bradley G. Beach, Richard K. Eckley, Carlton D. Fisher, William L. O'Byrne, Terence P. Paige, Carl Schultz, Paul W. Shea, W. Christopher Stewart, John R. Tyson, J. Michael Walters

**Adjunct Faculty** Jameson Kurasha

**Telephone** (716) 567-9451  
(800) 777-2556

**Majors** Bible (27 hours)  
Church Ministries BS degree (Bible, or educational ministries major + 37 hour music concentration)  
Educational Ministries (39 hours + 12 hours in Bible)  
Educational Ministries with Youth Ministry Concentration (39 hours + 12 hours in Bible + 6 hours in youth ministry concentration)  
Humanities (37 hrs., interdisciplinary; see Special Studies section for details)  
Philosophy (24 hours)  
Religion (38 hours)  
Religion with Ministerial Concentration (38 hours + 16 hours in ministerial concentration).

**Minors** Bible (12 hours), Educational Ministries (15 hours on a contract basis), Missions (12 hours), Philosophy (12 hours), Religion (12 hours), Theology (12 hours), Urban Ministry (15 hours).

**IS Courses** Level I: 3 hours BIBL 101 Biblical Literature  
2 hours PHIL 200 Knowledge and Reality  
2 hours PHIL 201 Ethics, or PHIL 250 Aesthetics  
3 hours THEL 209 Introduction to Christianity  
Level II: 3 hours any course with the BIBL prefix above 101, except:  
BIBL 241 Holy Land Tour  
BIBL 251 Bible History and Geography

Note: All students are required to take Biblical Literature either in the first or second semester of their first year. (Those who plan to transfer are not exempt from taking Biblical Literature. In most instances these credits will transfer to other institutions.)

**Majors & Programs** For those who are called into Christian service Houghton offers several programs.

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 38 hours in a specified core of religion courses and 16 hours in the ministerial concentration.

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

The **church ministries** curriculum, resulting in a BS degree, is recommended for those who desire to combine a major in Bible or educational ministries with a 37 hour concentration in music. This program will equip

the student for multiple service in the small church.

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.

The **Christian ministries** curriculum is a 2 year program leading to the degree associate of applied science. A strong Bible preparation, backed by select integrative studies requirements, is combined with a chosen concentration in communication, religion, educational ministries, or applied social science.

### Minors

Bible, educational ministries, and religion may be taken either as majors or minors. Missions, theology, and urban ministry are offered as minors only.

The **missions** minor is for students who contemplate missionary service and who wish to begin their vocational training. It is also recommended for those who desire to become informed about this important aspect of the church's life and work. Many majors (eg. Bible, International Studies, Foreign Languages, Educational Ministries, etc.) lend themselves to careers in missions. The missions minor at Houghton is specifically designed to bolster theological, historical, cultural and strategic missions applications. The choice of major should be governed by the interests of the candidate and advice from the mission board.

The **theology** minor provides concentrated study in Christian doctrine, apologetics and church history.

A minor in **urban ministry** is available for those anticipating working with an inner-city social and religious agency.

### Comprehensive Major in Religion (BA)

The major consists of 38 hours in Bible and related areas and provides for the earning of a bachelor of arts degree.

Specific requirements include:

Bible (12)

Biblical Interpretation (3)

Biblical Theology (6)

History of Christianity (6)

Reason and Religious Belief (2)

Six hours from the following:

Wesleyan Tradition      Modern Missions

World Religions      The Cults and New Age

Urban Ministry      Studies in Theology

Three hours from the following:

Sociology of Religion      Psychology of Religion

Philosophy course      Foundations of Educational Ministry

Theology course      Leadership in Ministry

Students electing the comprehensive major in religion must satisfy all normal integrative studies requirements, except that Greek must be taken to satisfy the language requirement. A curriculum plan for this major is available through the Department of Religion and Philosophy.

### Minor

A religion minor may be chosen by liberal arts students who desire to broaden their understanding in the area of religious thought; hence, it is offered as a liberal arts minor. The minor requires 12 semester hours selected from the areas of philosophy and theology with at least one course from each. The minor is to be chosen from the following courses: World Religions (PHIL 321); Reason and Religious Belief (PHIL 350); Biblical Theology: Old Testament (THEL 351); Biblical Theology: New Testament (THEL 352); Christian Apologetics (THEL 215); History of Christianity (THEL 453, 454).

Other courses may be chosen from the offerings in philosophy and theology with the approval of the department chair.



**Ministerial Curriculum**

The ministerial program combines the comprehensive major in religion (38 hours) with a 16 hour ministerial concentration. The degree awarded is the bachelor of arts.

Specific requirements are:

- 12 hours Bible
- 3 hours Biblical Interpretation
- 6 hours Biblical Theology
- 6 hours History of Christianity
- 2 hours Reason and Religious Belief
- 6 hours from the following 3 hour courses:
  - Wesleyan Tradition (required for Wesleyan ordination)
  - Modern Missions (required for Wesleyan ordination)
  - World Religions
  - The Cults and New Age
  - Urban Ministries
  - Studies in Theology
- 3 hours from the following:
  - Sociology of Religion
  - Psychology of Religion
  - Philosophy course
  - Theology course
  - Foundations of Educational Ministry
  - Leadership in Ministry
- 16 hours in ministerial concentration:
  - 3 hours Pastoral Theology I
  - 3 hours Pastoral Theology II
  - 4 hours Principles of Expository Preaching
  - 3 hours Ministerial Field Education
  - 3 hours Evangelism & Social Action in the Urban Context.

Students who choose the ministerial curriculum must satisfy all normal integrative studies requirements, except that Greek must be taken to satisfy the language requirement. A curriculum plan for this program is available through the Department of Religion and Philosophy.

**Church Ministries (BS)**

By combining a Bible major or an educational ministries major with the following concentration in music, a student may earn a BS degree in church ministries.

The music concentration will include these courses:

MHS 211 Music & Listening: An Introduction	3
MTH 225, 226 Theory I-II	6
MTH 227, 228 Aural Skills I-II	2
MUS 250 Music & Christian Perspective	2
MUS 229, 329 Basic, Choral Conducting	4
MAP 764 Voice level 220+	6
MAP 754, 752 Piano or Organ any level	5
MUS Ensemble (4 semester req.)	0-2
CHMU 216 Introduction to Hymnology	2
CHMU 301 Church Music Administration	2
CHMU 351 Music & Worship	3

35-37

A music audition is required for entrance into this program. Contact the director of the School of Music.

**Bible Major (BA/BS)**

The 27 hour major in Bible consists of 24 hours of Bible courses numbered 211 or above, plus 3 hours in theology. Biblical Literature (BIBL 101) is a pre-requisite for all other Bible courses. The Bible courses must include: Biblical Interpretation (BIBL 221), Life of Christ (BIBL 233), and Pentateuch (BIBL 231). Beyond this core, a minimum of 3 hours in each Testament is required. The other 9 hours may be selected from any of the catalog courses with the BIBL prefix. (Note: all Bible courses are recognized as liberal arts courses.)

In addition to the 24 hours of Bible courses, one of the following 3 hour theology courses must be taken: Systematic Theology (THEL 313), Biblical Theology: Old Testament (THEL 351), or Biblical Theology: New Testament (THEL 352). No more than 3 hours of theology can be credited toward this major.

**Minor** The minor in Bible consists of 12 hours in Bible, numbered 211 or above.

**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 course is a prerequisite for all other Bible courses and THEL 209 Intro. to Christianity.**

**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, F)

Analysis of critical and historical background, literary content, and development of the religion of Israel. Relevancy of contents.

**BIBL 233 Life of Christ** (3, F)

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.

**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.

**BIBL 303 Old Testament Historical Books** (3, F)

Study of the twelve 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, S)

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

**BIBL395 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, S)  
A study of the historical, critical, and contextual issues, with an emphasis on a vital faith to our generation.

**BIBL 412 Jeremiah** (3, F)  
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, F)  
An intensive study of the literary structure, the historical setting, and the theology of 1 Corinthians. Prerequisites: BIBL221 Biblical Interpretation, and at least one other upper level Bible course, or permission of the instructor.

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

**BIBL 496 Honors in Bible** (3, S)

**Biblical Languages**

**GREK 321 New Testament Greek** (4, F)  
Grammatical reading and exegetical study of Gospel of John and two epistles. Prerequisite: GREK 102.

HEBR 101, 102 **Beginning Hebrew** (4/4, F01/S02)  
 Elements of Biblical Hebrew. Reading from Old Testament.

**Educational Ministries (BS)** The major in educational ministries consists of 39 hours of course work as follows, plus a minor in Bible. To be eligible for TAP, New York State residents must also declare a second major and work toward a BA degree.

- 27 hours in educational ministries:
- EDMN 230 Educational Ministry of the Church 3
  - EDMN 231 Foundations of Educational Ministry 3
  - EDMN 319 Ministry with Children 3
  - EDMN 326 Ministry with Youth 3
  - EDMN 324 Ministry with Adults 3
  - EDMN 325 Bible Study and Teaching Methods 3
  - EDMN 431 Leadership in Ministry 3
  - EDMN 442 Internship in Educational Ministries 6

3 hours in theology:  
 THEL 313 Systematic Theology 3

3 hours in psychology, chosen from:  
 PSY 214 Child Psychology 3  
 PSY 215 Adolescent Psychology 3  
 PSY 218 Social Psychology 3  
 PSY 306 Psychology of Religion 3

3 hours in family studies chosen from:  
 PSY 230 Life-span Development of the Family 3  
 PSY 326 Introduction to Family Systems 3  
 SOC 237 Intro to Marriage and Family Studies 3

3 hours of urban ministry chosen from:  
 URMN 211 Urban Ministry 3  
 URMN 250 Evang & Soc Action in 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** The youth ministry concentration requires the full core of Educational Ministries courses listed above, plus 6 hours as follows: (Total of 45 hours; plus a minor in Bible is also required.)

- EDMN 350 Youth Evangelism and Discipleship 3
- 3 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 in Educational Ministries** The minor in educational ministries consists of 15 hours arranged on a *contract* basis with the Educational Ministries program advisor. The following courses are required:

- EDMN 230 Educational Ministry of the Church 3
- EDMN 325 Bible Study and Teaching Methods 3
- THEL 313 Systematic Theology 3

In addition, 6 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

**EDMN 230 Educational Ministry of the Church** (3, F)

An introduction to ministry from an educational perspective: i.e., needs, aims, methods, materials, and organization with children, youth, and adults in church, denomination, and para-church agencies.

- 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 319 Ministry with Children** (3, F)  
 Integrates developmental psychology, educational concepts, and biblical perspectives in developing principles and methods for children's spiritual development in home, church, and community; examines: play, drama, music, story telling, worship, sexual awareness, current curricula.
- EDMN 324 Ministry with Adults** (3, S)  
 Characteristics, needs, problems of adults, with responsive approaches in ministry to singles, married, families, the elderly.
- 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 326 Ministry with Youth** (3, S)  
 Adolescent psychology and sociology inform a biblical approach to adolescent spiritual growth, emphasizing concepts, objectives, organization, counseling; methods for home and para-church ministry.
- 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 431 Leadership in Ministry** (3, S)  
 Principles and methods of leadership, administration, and organization for ministry in church and para-church agencies. A prerequisite for the educational ministries practicum.
- EDMN 442 Internship in Educational Ministries** (6, F/S)  
 Supervised field experience in a church or para-church agency combining academic work with practical and professional responsibilities and relationships. Prerequisites: EDMN 230, 325, 422, and two out of three EDMN 319, 326, and 324, or permission of the educational ministries advisor.
- EDMN 191, -2; 291, -2; 391, -2; 491, -2 Independent Study** (1, 2 or 3)
- EDMN 496 Honors in Educational Ministries** (3, S)

**Ministerial Concentration**

The ministerial curriculum combines the comprehensive major in religion (38 hours) with a 16 hour ministerial concentration. The complete curriculum is described in detail above. The 16 hours required for the ministerial concentration include each of the courses listed below (except MIN105 Introduction to Christian Ministries), plus URMN250 Evangelism and Social Action in the Urban Context.

- MIN 105 Introduction to Christian Ministries** (2, F)  
 Investigation of the Biblical, historical, and practical foundations for ministry as essential components of Christian vocation. Lay and professional aspects of ministry are explored. Includes observation and experiential learning. (**Note:** This course is not required in the ministerial concentration, but is recommended for anyone who is interested in ministry. It is an excellent introduction to various forms of ministry.)
- MIN 316 Pastoral Theology I** (3, F00 & 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 Pastoral Theology II** (3, S01 & 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. Prerequisite: Public Speaking, or permission.

**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.

**Missions  
 Minor**

The missions minor requires 12 hours, and includes MISS 221 History of Missions and MISS 222 Modern Missions. The remaining 6 hours are to be selected from the following: MISS 311 Cross Cultural Field Experience, MISS/PHIL 321 World Religions, MISS 395 Special Topics in Missions, THEL 214 The Cults and New Age, COMM 325 Cross Cultural Communication, LING 220 Introduction to Linguistics, and SOC 243 Cultural Anthropology. Most students minoring in missions will include the highly recommended Cross Cultural Field Experience in addition to the 12 hours of regular course work.

**MISS 221 History of Missions** (3, F)  
 Missions from apostolic days to present. Changing concepts of missions. Contributions of outstanding leaders. (Liberal arts credit)

**MISS 222 Modern Missions** (3, S)  
 Survey of modern missions; theology of missions, aims and methods. Contemporary movements, issues, trends, and research.

**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)  
 For description, see PHIL 321.

**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)

**Philosophy  
 (BA)**

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. According to Aristotle, philosophy begins with wonder. Out of this wonderment and seeking of answers to deep questions, worldviews emerge. A worldview defines who we are as human beings, and our place in the universe. Accordingly, the aims of philosophy reflect one of the central aims of a liberal arts education, namely, the development of a world and life view. A person's most basic philosophical commitments shape his or her overall perspective or point of reference intellectually. Work within other academic disciplines rests on such philosophical commitments, reflection upon which significantly enhances one's ability to grasp connections between various fields of study.

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.

**Major** The major consists of 24 hours of course work in philosophy in addition to the 4 hours to satisfy Integrative Studies requirements, and must include both PHIL 241 and 242, at least 2 hours of either PHIL 223 or 224, and at least 6 hours at the 400 level.

**Minor** The minor consists of 12 hours of course work in philosophy in addition to the 4 hours completed to satisfy Integrative Studies requirements, and must include at least 4 hours of history of philosophy (either PHIL 241 or 242).

**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 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, S02 and alternate years)

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 move-

ments from the 19th and 20th centuries. Readings include both primary and secondary sources.

**PHIL 250 Aesthetics** (2, S)

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 315 Theory of Knowledge** (4, F00)

Examination of contemporary perspectives on the nature and limits of human knowledge, as well as the concept of truth.

**PHIL 321 World Religions** (3, S)

Background, major teachings of Eastern religious and philosophical thought. Emphasis on understanding and evaluating non-Western ideas, practices.

**PHIL 326 Ethical Theory** (4, F)

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, F00)

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 emphasis on critical analysis and evaluation of primary source material.

**PHIL 191, -2; 292, -2; 391, -2; 491, -2 Independent Study** (1, 2 or 3)

**PHIL 496 Honors in Philosophy** (3, S)

**Theology and Church History**

The theology minor consists of 12 hours including THEL313 Systematic Theology. The remaining nine hours are to be selected from any of the courses below except THEL 209 Introduction to Christianity.

**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, S02 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 313 Systematic Theology** (3, F01 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. Emphasis on the history of The Wesleyan Church and the doctrine of holiness.

**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, F)  
 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, F00/S01 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. (Liberal arts 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**

The minor in urban ministry requires 15 hours. It includes the four courses listed below and Foundations of Educational Ministry (EDMN 231), or Educational Ministry of the Church (EDMN 230).

**URMN 211 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 211 and declaration of minor.

**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 211, and declaration of minor.

**Christian Ministries Curriculum (AAS)**

The Christian ministries curriculum is a 2 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 12-16 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 3 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

**Christian Ministries (AAS)**

**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.

**Pastoral and Church Ministries Program**

The associate of applied science degree in Christian ministries may also be earned through the Pastoral and Church Ministries Program. This is a program within the department of religion and philosophy which is offered in the urban context in Buffalo NY. The following shows how the AAS degree requirements can be met with an educational ministries concentration.

**Christian Ministries Curriculum (AAS)**

- The integrative studies requirements (22 hours) are:
- 3 hours of Bible PBIB102 or PBIB103
- 3 hours of math or science
- 3 hours of principles of writing
- 4 hours of social science PSSC217 and PSSC218
- 6 hours of humanities, with at least 3 of philosophy
- 3 hours of theology PTHL230
- The required religion courses (25 hours) are:
- 6 hours of Bible: Old Testament PBIB102, PBIB222, 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
- 4 hours of internship PMIN 270

The educational ministries concentration requirements (16 hours) are: PEDM 233, 235, 250, 252, 254, 256, and 258.

Also required is a course in preaching PMIN222. The integrative studies liberal arts courses, as well as the additional courses required to complete the 62 hours for the AAS degree, may be taken through Houghton College, or transferred from another college or university.

A student may earn the AAS Christian Ministries degree in one of the other concentrations listed above (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) 893-1165.

**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 (2)**

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 250 Working With Urban Youth (3)**

Provides skills and tools for working with urban youth. The urban family structure is examined as it relates to youth needs and expectations.

- PEDM 252 Theology of the City** (2)  
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** (2)  
An introduction to the methods of Bible study. Materials explore biblical teaching methods, with emphasis placed on lesson design, planning, and presentation.
- PEDM 256 Selecting and Training Teachers** (2)  
Specially designed for managers of Christian education programs. Provides guidance, skills and assessment tools needed to select and train teachers of Christian education.
- PEDM 258 Techniques of Teaching Youth and Adults** (2)  
Learning styles and psychology of teaching youth and adults are examined. Special attention is placed on discipleship training for effective ministry among this population.
- 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** (4)  
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 217 Pastoral Counseling in the Urban Tradition** (2)  
Provides practical skills in counseling and pastoral care. The course draws upon the unique expressions of spirituality in the urban community to help the student minister effectively.
- PSSC 218 Pastoral Care in the Urban Community** (2)  
Exploration of pastoral care in the urban community context. Emphasis is given to the specific counseling needs in the urban community.
- 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.

# Special Studies

These programs, ranging from orientation courses for college freshmen to fully defined majors in upper-divisional studies, are under the general direction of the academic dean and are staffed by the faculty assigned to various academic departments.

## College Life and Leadership Studies

While Houghton College traditionally offers strong academic programs within its major disciplines, there are also several opportunities for students to develop skills necessary for life planning and to prepare for future leadership responsibilities.

The first-year student orientation and student leadership program offers three life and leadership courses; one is required while the other two are options. The program, which is coordinated by the Office of Student Life, uses personnel and resources from a variety of disciplines.

### 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 and at 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 freshmen.

### CLLS 201 **Practicum in Student Life: First Year Introduction Leadership Training and Experience (P/U)** (1, May)

Two-week training course in Mayterm (held afternoons to avoid scheduling conflicts), with credit awarded after completing the FYI program in the fall. Prepares upperclass students to lead FYI small group experiences.

### CLLS 203 **Practicum in Student Life: Resident Assistant Training and Experience (P/U)** (1, May)

Special training course in May, with credit awarded after in-service training for the fall. Prepares upperclass students for leadership in residence life management.

### CLLS 208 **Externship: Preparing Liberal Arts Students for Careers (P/U)** (2, OD, M)

Provides students an opportunity to learn about the working world and possible career options upon graduation.

## Humanities

Program director: Dr. Christopher Stewart

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.

The major consists of 37 semester hours as indicated below:

9 hours in literature (3 may be in classics or a modern foreign language)

9 hours in history

9 hours in philosophy

3 hours additional in one of the above

3 hours, Art History (ART 231, 232) or Music History (MHS 333, 334)

3 hours elective (with consent of advisor)

1 hour, Humanities Seminar (HUM 481)

**HUM 395 Special Topics**

(1, OD)

**HUM 401 Pagans and Christians: Ancient and Medieval Texts** (3, OD)

Close analysis of some primary texts from ancient and medieval times: Plato, Aristotle, Thucydides, Cicero, Augustine, Dante, et al. Develop scholarly skills of research, interpretation, writing; foster awareness of the influence of such works on modern thought.

**HUM 481 Humanities Seminar**

(1, S)

The student undertakes a directed studies project in which he or she produces a paper which synthesizes the historical, literary, and philosophical developments relevant to a selected theme or person.

**International Studies**

**Program director: Dr. David Benedict**

Houghton College encourages study abroad and provides coordinating services and supporting coursework. These courses also serve as part of our major and minor in international studies. Information on these may be found in the history and political science section.

**INDS 211 Intercultural Transition and Adjustment**

(1, 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. This course is a prerequisite for students taking INDS 311 and for foreign language students studying abroad. Recommended to any student anticipating an intercultural experience.

**INDS 311 Intercultural Experience**

(5, OD)

Required for international studies major or intercultural relations minor; open to others. No student may enroll in this course until a written proposal for the experience, internship, or study program is approved by the office of intercultural affairs and international studies. Written guidelines are available in that office. Enrollment in Intercultural Transition and Adjustment (INDS 211) is a prerequisite to this course.

**Off-campus Programs**

**Program director: Dr. Paul Shea**

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. The courses available under five of these programs are as listed. Information on the others is available through the off-campus programs office.

**HOUGHTON-SPONSORED PROGRAMS:**

**First Year Honors Program**

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.

### **Houghton in London**

In this fall semester program upperclass students select a regular load of courses from a pool of eight options. Although intentionally unique, the courses are designed to meet Houghton integrative studies requirements. The adjunct 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 study.

### **Houghton at Tanzania**

An intensive fall semester experience, Houghton at Tanzania offers the unique opportunity to study anthropology, history, animal ethology, linguistics, intercultural studies, and ecotourism in East Africa. Students will visit the Maasai, Hehe, and other tribes, observe dozens of animal species in natural habitat, and soak up the history, language and culture of East Africa. (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. (Course list follows.)

### **Additional Study Abroad Opportunities**

In addition, the college has affiliation agreements with Central College (Pella, IA), Brethren College (IN), Shanghai Language Institute in the People's Republic of China, the International Business Institute of King College (Bristol, TN), the Center for Cross Cultural Studies (Seville, Spain), Edu-Venture (Irian Jaya), Laval University (Quebec), and the CCCU programs. 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 twelve 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.

### **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 as listed below:

## **COURSE LIST for HOUGHTON PROGRAMS**

### **Houghton in Tanzania Program**

During the semester in Tanzania, a student may earn between 12 and 17 hours selected from the following:

#### **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 Maasai, Hehe and other peoples.

BIOL 207 or 212 **Wildlife Behavior in East Africa** (3 or 4, S)  
See catalog listing under Biology

#### Optional courses

INDS 311 Intercultural Experience (5)  
See catalog listing under International studies.  
LING 295, 395 or 495 Special Topics in Linguistics (1-3)  
See catalog listing under Foreign Language  
REC 212 Ecotourism: East Africa (3)  
See catalog listing under Physical Education/Recreation  
Independent studies also available (1-3)

### Houghton College: Oregon Extension Program

During the semester at Oregon Extension, a student may earn 15 credit hours selected from among the following:

#### 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 Analysis and Theory

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.

Education 396 **Topics in Educational Theory** (3)

Theories and practices of selected educational thinkers or movements, with special concern for their insights into or reflections of the dynamics of modern social life, and their implications for social change.

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 Social Issues and 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: The Human Condition**
- 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 and/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: The Christian Faith**
- 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** (2)  
Individualized and group instruction in discussion participation, research skills, essay writing, and formal oral presentation.

**COUNCIL-SPONSORED PROGRAMS:**

**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 congressional offices, social service agencies, think tanks, or cultural institutions.

**AS320 American Studies Internships** (8 hrs, upper division)  
Part-time work experience in Washington, D.C., in a professional setting within student's major field. Students select placements in communication arts, urban ministries, marketing and corporate enterprises, law firms, trade associations, federal agencies, or political offices. Limited enrollment. Credit granted at the discretion of major department.

**AS340 American Studies Seminars** (8 hrs, upper division)  
Interdisciplinary examination of selected topics in American political, historical, and cultural context. Includes four 2-credit study modules: Foundations for Public Involvement, Domestic Policy Issues, Economic Policy Issues, and International Policy issues. Limited enrollment. Credit granted as electives or for major if approved by major department.

**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.

### 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.

LS320 Latin American Studies Service/Travel (4 hrs, upper division)  
A two-week, hands-on experience working in a servant role in the Third World. Opportunities available in education, economic development, health, agriculture, and environmental stewardship. Three weeks of travel in other Central American countries exposes students to rich diversity of countries and cultures.

LS340 Latin American Studies Seminars (6 hrs, upper division)  
Explore many of the challenges facing Latin America in the light of biblical truth. Seminars are nontraditional, interdisciplinary, and allow personal interaction with experts on Latin American history, politics, economics, and religious life. Spring semester: tropical science and global sustainability seminar offers study of the unique physical resources of Central America.

LS360 Latin American Studies Spanish Classes (6 hrs)  
The Instituto de Lengua Espanola (The Spanish Language Institute) in San Jose places students according to ability and provides daily language classes for the first six weeks. Interaction with host families and local Costa Ricans develops language skills.

### 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.

LAFSC Internship (6 semester 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.

Inside Hollywood (1 semester credit)  
An overview of the creative and operational aspects of the Hollywood film business, including the Christian's role in working within the entertainment business.

Faith, Film and Culture (3 semester 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)  
Introduction to Filmmaking (3 semester 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.

**Seminar in Producing the Independent Film** (3 semester 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 student 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.

**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 twelve 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.

**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.

**Oxford Summer School Program**

Students at Councilmember 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.

**Tabular Listing of Off-Campus Programs** *(data is subject to change)*

**Off-Campus Programs**

	<b>HC Catalog Courses</b>	<b>Grades on Trnsript</b>	<b>HC Fin Aid</b>	<b>Qualifies Mayterm</b>
<b>Houghton Programs</b>				
Oregon Extension	Yes	Yes	No	Yes
First Year Honors	Yes	Yes	Yes	Yes
Houghton at Tanzania	Yes	Yes	Yes	Yes
Houghton in London	Yes	Yes	Yes	Yes
<b>Houghton-affiliated programs</b>				
Amer. Inst. of Forgn. Studies	No	No	No	No
AuSable Inst. of Environ. Studies (MI)	Yes	Yes	No	No
Brethren College (IN)	No	Yes	No	No
Center for Cross-Cult'l Studies (Seville)	No	Yes	No	No
Central College (IA)	No	Yes	No	No

CCConsortium Visitor	No	Yes	No	No
Council for Christian Colleges & Universities				
ASP (Wash., DC)	Yes	Yes	No	Yes
CSP	Yes	Yes	No	Yes
LAFS (Los Angeles)	Yes	Yes	No	Yes
LASP (Costa Rica)	Yes	Yes	No	Yes
MESP	Yes	Yes	No	Yes
Russian Studies	Yes	Yes	No	Yes
Edu-Venture	No	Yes	No	Yes
Int'l Business Instit. of King College (TN)	Yes	Yes	No	No
Jerusalem University College	No	Yes	No	No
Laval Language Institute (QB)	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
Shanghai Language Inst. (China)	No	Yes	No	No
Study Abroad Program of Central College (IA)	No	Yes	No	No
WNY College Consortium	No	Yes	NA	No

### P.A.C.E. Houghton College: Adult Degree Completion Program Program director: David W. Frasier

Houghton College offers at its West Seneca Campus, in Olean, and Arcade an adult degree completion program leading to a bachelor of science degree in management. 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 15 months, has three major requirements:

- Transfer of a minimum of 64 semester hours from approved institutions to Houghton College.
- Assessment of personal portfolio of prior learning, leading to the award of a maximum of 24 semester hours of credit.
- Completion of an advanced-level, interdisciplinary core of 36 semester hours, comprised of twelve 3-hour courses.

**(Note: The combination of transfer credit and portfolio credit must provide a minimum of 88 semester hours for admission to the program. 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 prior to beginning the core courses. These general education requirements are:

	<i>minimum hours</i>	
Religion and philosophy	7	
Communication (written and spoken)	6	
Humanities (foreign language, cross-cultural studies, history, literature, fine arts and social science)	18	(at least 6 hours in humanities, but not more than 6 hours in any one discipline.)
Mathematics/computer science and science (no more than 4 hours in any one category)	6	

Total

37

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 session (different from the regular college semester).

A fully matriculated student in the core P.A.C.E. program may take four (4) 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.

For more information, write to the Director of P.A.C.E., Houghton College at West Seneca Campus, 910 Union Road, West Seneca, NY 14224, or call (716) 674-6363 or (888) 874-PACE.

## **Adult Degree Completion**

### **Term I**

#### **ADC 321 Adult Development (3)**

Overview of adulthood in context of life span: biological change, cognitive characteristics, personality, moral reasoning; also, issues of gender, interpersonal relations, ethnicity, aging. Impact of theory on organizational development.

#### **ADC 322 Specialized Writing (3)**

Emphasis on improving ability to communicate effectively via writing, identification of audience and purpose, clear reasoning and rational organization, suitable wording, and effective rewriting.

#### **ADC 323 Work-Team Dynamics (3)**

Emphasis on dynamic processes affecting task-orientated work groups: formation, development, maturity, effectiveness; consideration of goals, interactions, problem recognition, interventions and team meetings.

#### **ADC 324 Fundamentals of Management (3)**

Effective reasoning and decision-making for organizational managers. Assessment and development of leadership styles, ethical perspectives, problem solving, stating goals and objectives, strategic and tactical planning. Assessing, developing individual managerial competencies.

#### **ADC 391 Independent Study (option) (3)**

(Formally-approved, independent course of study in communication, business, or sociology. See program director for details.)

### **Term II**

#### **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; individual contributions to work world ethics.

#### **ADC 442 Human Resources Management (3)**

Perspectives on traditional, current, emerging practices in human resource management; relationship to economics, law, psychology, sociology; programs and policies used in employee management.

#### **ADC 443 Personal and Professional Ethics (3)**

Examination of ethical theories and specific moral issues in the workplace, with small-group analysis of selected rules and cases.

#### **ADC 444 Accounting and Finance for Non-Financial Managers (3)**

Study of and practice using the accounting and finance concepts needed by all managers. An introduction to the basics of accounting for organizations, cost control, understanding and analysis of financial statements, budgeting, working capital management, and financing alternatives.

- ADC 491 Independent Study** (option) (3)  
 (Formally-approved, independent course of study in communication, business, or sociology. See program director for details.)

**Term III**

- ADC 451 Quantitative Decision-Making** (3)  
 Statistics as a tool in solving real-world problems: 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 452 Persuasive Presentation** (3)  
 The preparation, presentation and evaluation of persuasive, or problem solving, presentations. Emphasis on content, structure and extemporaneous delivery. Topics include attention getting, motivation and strategy, audience analysis, decision making, cause and effect and pro and con reasoning, effective closure.

- ADC 453 Diversity in the Workplace** (3)  
 Sociological approach to examining the marketplace's diversity, stratification, stereotyping, and misunderstandings; cultural, gender, ethnic, racial differences; issues and problem solving.

- ADC 454 Organizational Development** (3)  
 The development of theory and innovative practice relevant to leadership and organization change. Major topics include: change processes within organizations; active attempts to intervene in organizations to improve their effectiveness, and studies of such interventions; the roles of change agents, and problems of self-awareness, responsibility, and the political consequences of OD 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 twentieth 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.

# Trustees, Officers, Faculty

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## Administrative Staff

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Peter A. Amos .....	Dir. Multicultural Aff/Int'l Stu; Ass't Dir. of Conferences
Michelle L. Ashman .....	Resident Director, East Hall



Margery L. Avery .....	Director of Academic Records
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Luanne J. Cline .....	Assistant Dir. of Financial Aid for Off-campus Programs
George E. Cole .....	P.C. Support Technician
Nancy A. Cole .....	Women's Volleyball Coach
John P. Durbin .....	W. S. Technology Coordinator/PACE Business Officer
Amy J. Durkee-Pollock .....	Assistant Director of Admission
Jennifer J. Farley .....	Admission Counselor
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Phyllis E. Gaerte .....	Campus Store Operations Manager
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Robin L. Ha .....	Assistant Director of Annual Fund
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Jason Holmwood .....	Resident Director/Assistant Director of Residence Life
Lauren E. Holmwood .....	Campus Visit Coordinator
Donna J. Hornibrook .....	Field Hockey Coach
Dwight A. Hornibrook ..	Men's Soccer Coach/Ass't. A.D., Marketing & Promotion for Confer- ences
David M. Huth .....	Graphic Designer
Steven D. Johnson .....	Webmaster
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Cynthia B. Lastoria .....	Help Desk Coordinator
Dean A. Liddick .....	Major Gift Officer
Jerry R. Livingston .....	Senior P.C. Support Engineer
Harold W. Lord ....	Assoc. Vice Pres. For Conf. & Dir. of Athletics; Women's Basketball Coach
David J. McMillan .....	Graduation Advisor P.A.C.E.
Troy R. Martin .....	Director Student Financial Services
David M. Mercer .....	Controller
Daniel C. Moore .....	Instructional Support Coordinator
Jason Mucher .....	Media Specialist
Nancy L. Murphy .....	Counselor
Scott M. Murphy .....	P.C. Support Engineer
Ray M. Parlett .....	Director, Campus Safety & Security
Mark A. Pavone .....	Senior Admission Counselor
Beth A. Pocock .....	Assistant Director of Financial Aid
Trini G. Rangel .....	Dir. of Intramurals; Ass't Men's Basketball Coach
Kori M. Rauch .....	Admission Counselor
Patricia A. Regan .....	Major Gifts Officer
Theobald Seales, III .....	Network Administrator
Catherine G. Seebald .....	Director, Advancement Services
Robert B. Smalley .....	Cross Country/Track Coach; Instructor
Gail R. Smith .....	Director, Student Health Services
Patricia T. Smith .....	Assistant Director of Technology Services
Valerie C. Smith .....	Design Publications Manager
G. Ange Szymanski .....	Director of Custodial Services
Laurinda Wallace .....	Manager, Administrative Services
Kevin A. Wilson .....	Director of Church Relations
John W. Woodard .....	P.C. Support Engineer
Dale F. Wright .....	Director, Human Resources/Assistant Treasurer

## Faculty

The date following the name indicates year of appointment to the Houghton faculty. Adjunct faculty names appear at the end of the list.

**A. Cameron Airhart** (1987)

*Professor of History*

BA, Northwest Nazarene College, 1976; MA, PhD, University of California (Santa Barbara), 1979, 1985

**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

**Glen Avery** (1987-93; 1998)

*Director of Instructional Technology/Librarian*

BA, Houghton College, 1976; MBA, University of New Hampshire, 1980; MLS, University of Buffalo, 1993; PhD candidate, University of Buffalo

**Denise Bakerink** (2000)

*Associate Dean of Students; Director of Residence Life*

BS, Houghton College, 1983; MS, State University College at Buffalo, 1986

**Coenraad Bakker** (1997)

*Associate Professor of Computer Science*

BS, Parsons College, 1965; MS, University of Rochester, 1970

**Kenneth J. Bates** (Spr, 1989)

*Associate Professor of Business; Chair, Department of Business & Economics*

BS, Houghton College, 1971; MBA, Loyola College, 1980

**Gary D. Baxter** (1979-1982, part-time; 1982)

*Professor of Art; Chair, Department of Art*

BA, SUNY College at Geneseo, 1983; MFA, Rochester Institute of Technology, 1985

**Bradley G. Beach** (2000)

*Interim Associate Professor of Philosophy*

BA, Houghton College, 1975; MA, Trinity Evang. Div. Sch., 1977; PhD, Syracuse Univ., 1982

**Willis Beardsley** (1980)

*Director of Academic Assessment*

BA, Houghton College, 1960; MS, SUNY College at Geneseo, 1965; EdD, SUNY at Buffalo, 1977

**Blaine David Benedict** (1989)

*Professor of Political Science*

BA, Houghton College, 1973; MA, PhD, University of Pennsylvania, 1974, 1977

**George Bennett** (1985)

*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

**Scot E. Bennett** (1986)

*Professor of Art*

BS, Roberts Wesleyan College, 1981; MFA, Rochester Institute of Technology, 1983

**Robert A. Black** (1991)

*Professor of Economics*

BA, West Virginia Wesleyan College, 1972; MA, PhD, West Virginia Univ, 1979, 1984

**George A. Boespflug** (1986)

***Professor of Piano; Director, School of Music***

BM, MM, University of Colorado, 1977, 1981; DMA, Eastman School of Music, 1986

**J. Kenneth Boon** (1964-1966, 1974)

***Professor of Biology***

BA, Houghton College, 1962; MS, PhD, Kansas State University, 1970, 1980

**Jonathan Bradshaw** (1999)

***Interim Instructor of Accounting***

BS, Houghton College, 1997; MBA, Rochester Institute of Technology, 1999

**Bruce N. Brenneman** (1982-98 part-time, 1998)

***Assistant Professor of Theater***

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; NAIA Faculty Representative***

BS, Geneva College, 1973; MS, Wilkes College 1974; PhD, University of Rochester, 1994

**Bruce C. Brown** (1974)

***Professor of Voice***

BM, Wheaton College, 1962; MM, DMA, University of Southern California, 1964, 1974

**Betty J. Bunt** (1982)

***Serials Librarian***

BA, Houghton College, 1966; MLS, SUNY College at Geneseo, 1981

**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

**Judy A. Congdon** (1991)

***Associate Professor of Organ***

BMus, Wheaton College, 1975; MMus, University of Colorado, 1977; Diploma, Hochschule fur Musik, Frankfurt/Main, Germany, 1979; MA, DMA, Eastman School of Music, 1990

*(sabbatical, spring, '01)*

**Robert F. Danner** (1981)

***Vice President for Student Life and Dean of Students***

BME, Wheaton College, 1960; MA, George Washington University, 1974; PhD, SUNY at Buffalo, 1990

**Linda A. Doezema** (1979)

***Coordinator of Public Services, Library***

AB, Calvin College, 1970; MLS, MA, Kent State University, 1975, 1979

**William R. Doezema** (1979)

***Professor of History; Chair, Department of History/Political Science***

AB, Calvin College, 1969; MA, PhD, Kent State University, 1974, 1978

**Richard K. Eckley** (1990)

***Associate Professor of Christian Ministries***

BS, United Wesleyan College, 1980; MDiv, Asbury Theological Seminary, 1983; ThM, Princeton Theological Seminary, 1985; PhD, Duquesne University, 1998

196/Faculty

**Constance R. Finney** (1981-86, part-time; 1986)

**Associate Professor of Education; Chair, Department of Education**

BA, Houghton College, 1978; MS, SUNY College at Buffalo, 1981; EdD, SUNY at Buffalo, 1994

**Carlton D. Fisher** (1985)

**Professor of Philosophy; Associate Academic Dean**

BA, Marion College, 1974; MA, Western Kentucky University, 1978; MA, PhD, University of Notre Dame, 1980, 1984

**Michael W. Frank** (1999)

**Visiting Assistant Professor of Political Science**

BA, Northern Illinois University, 1984; PhD, University of Illinois, 1996

**David W. Frasier** (1979)

**Director, Program for Accelerating College Education; Associate Professor of Business Administration; Assistant to the President for PACE Marketing and Servicing**

BA, Houghton College, 1972; MBA, Boston University, 1979

**Timothy R. Fuller** (1980)

**Vice President for Enrollment Management, Assistant to the President**

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 für Musik und Darstellende Kunst, Vienna, 1970; DMA, Eastman School of Music, 1987

**Douglas M. Gaerte** (1988)

**Associate Professor of Communication; Chair, Department of English and Communication**

BS, Grace College, 1983; MA, PhD, Indiana University, 1987, 1995

**Andrew F. Gallman, II** (1998)

**Assistant Professor of 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 (1998-01)**

BM, Boston Univ., 1968; MM, *ibid.*, 1972; MTS, Gordon-Conwell Theol Sem., 1970; Staatliche Hochschule für 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; Hoselton Chair of Private Enterprise (1999-02)**

BA, Houghton College, 1971; MBA, University of Akron, 1976

**Virginia A. Halberg** (1978, part-time)

**Instructor of Piano**

BMus, Houghton College, 1971

**Mark Hartman** (1998)

**Associate Professor of Violin**

BA, Univ. of Winnipeg, 1981; MM, DMA, Univ. of North Carolina at Greensboro, 1990, 1997

**Granada Hernandez** (1995, part-time)

**Instructor of Spanish**

BA, Universidad Nacional Pedro Henriquez Urena, 1995

**Horacio A. Hernandez** (1995)

**Assistant Professor of Spanish**

BA, Universidad Autonoma de Santo Domingo, 1987; MA, PhD, SUNY at Albany, 1993, 1999

**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

**Mark D. Hijleh (1993)**

(Sabbatical, fall, 2000)

**Associate Professor of Theory and Composition**

BS, William Jewell College, 1985; MM, Ithaca College School of Music, 1987; DMA, Peabody Conservatory, 1991

**David A. Howard (1969)**

**Professor of History**

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)**

**Assistant 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

**Richard A. Jacobson (1966)**

**Professor of Mathematics; Chair, Department of Mathematics & Computer Science**

BS, MS, South Dakota School of Mines, 1959, 1961

**Larry C. Johnson (1999)**

**Vice President for Advancement**

BE, MS Vanderbilt University, 1973, 1975; MDiv, Yale University, 1978

**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**

BM, MM, Texas Tech University, 1973, 1974; DMA, Eastman School of Music, 1985

**Harold E. Kingdon (1967)**

**Professor of Christian Ministries; Chair, Department of Religion & Philosophy**

BA, Houghton College, 1957; MDiv, ThM, Asbury Theological Seminary, 1966, 1967; DMin, Bethel Seminary, 1978

**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, Univ. 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

**Timothy O. Leonard (2000)**

**Assistant Professor of Biology**

BS, Houghton College, 1991; PhD, Pennsylvania State University College of Medicine, 1996; MD, *ibid.*, 1998

**David B. Lewis (1993)**

**Director of Christian Life**

BA, The King's College, 1978; MDiv, DMin, Gordon-Conwell Theol. Sem., 1982, 1992

198/Faculty

**Rebecca C. Loaiza** (1998)

***Assistant Professor of Spanish***

BA, Houghton College, 1995; MA, Universidad de Costa Rica, (expected fall, 2000)

**Susan G. Martin** (1994, part-time; 1995)

***Assistant Professor of Education***

BS, Houghton College, 1984; MS, Alfred University, 1990

**Charles E. Massey** (1976; 1998 - part-time)

***Professor of Education***

AB, Southern Pilgrim College, 1968; MA, EdD, Univ. of NC at Greensboro, 1972, 1976

**Claity Price Massey** (1976-96, 1996-98 - leave of absence; 1998 - part-time)

***Professor of Education***

AB, High Point College, 1973; MEd, University of North Carolina at Greensboro, 1976; PhD, SUNY at Buffalo, 1987

**Jayne E. Maugans** (1991-92; 1993)

*(Sabbatical, fall, 2000)*

***Professor of Sociology***

BA, MA, Wichita State University, 1983, 1988; PhD, SUNY at Buffalo, 1990

**Harold E. McNiel** (1958)

***Professor of Brass Instruments***

BM, Oklahoma City University, 1956; MMus, DMA, Eastman School of Music, 1958, 1968

**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

**Timothy Nichols** (1990)

***Director of Career Services***

BA, Houghton College, 1981; MS, SUNY College at Buffalo, 1983; PhD, University of 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

**William L. O'Byrne** (1983)

***Professor of Educational Ministries***

BA, Wheaton College, 1958; MA, ibid, 1966; PhD, New York University, 1978

**Kathleen T. O'Connor** (1995)

***Associate Professor of Spanish***

BA, University of Pennsylvania, 1977, MLA, Johns Hopkins University, 1982; MEd, MPhil, PhD, Columbia University, 1987, 1992, 1994

**Terence P. Paige** (1994)

***Associate Professor of New Testament***

BA, Seattle Pacific University, 1982; MCS, MDiv., Regent College, 1986; PhD, University of Sheffield (England), 1994

**Matthew K. Pelletier** (1999)

***Assistant Professor of Biology***

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

**Richard B. Perkins (1978)**

***Professor of Sociology***

BA, Wheaton College, 1965; MA, PhD, University of Massachusetts, 1972, 1977

**Bernard J. Piersma (1971)**

***Professor of Physical Chemistry***

BA, Colgate University, 1959; MS, St Lawrence, 1961; PhD, Univ. of Pennsylvania, 1965

**John H. Powell, (1993)**

***Director of Pastoral and Church Ministries Program at King Urban Life Center;  
Associate Professor of Sociology***

BS, Tuskegee Institute, 1964; MUP, University of Michigan, 1977

**Rhea R. Reed (1992)**

*(leave of absence, 1999-01)*

***Associate Professor of Accounting***

BA, Houghton College, 1975; MA, George Washington University, 1980; JD, University of Maryland School of Law; CPA, State of Maryland, 1988

**Barbara Jean Reigles (1975)**

***Professor of Voice; Director of Choral Activities***

BS, Roberts Wesleyan, 1969; MM, University of Cincinnati Conservatory of Music, 1975; PhD, Texas Tech University, 1995

**John M. Rhett (1995)**

***Associate Professor of Art***

BFA, MFA, Virginia Commonwealth University, 1979, 1995

**Jean-Louis Roederer (1966-72; 1976)**

***Associate Professor of French and Spanish; Chair, Department of Foreign Languages***

BA, Houghton College, 1964; MA, Middlebury College, 1970

**Roger J. Rozendal (1972)**

***Associate Professor of Communication***

BA, Northwestern College, 1965; MA, Oklahoma State University, 1969

**Carl Schultz (1965-67; 1974)**

***Professor of Old Testament***

BRE, Malone College, 1952; BA, Houghton College, 1953; MA, Wheaton College, 1954; PhD, Brandeis University, 1973

**James E. Schwartz (1996)**

***Associate Professor of Education***

BS, MS, SUNY at Geneseo, 1976, 1981; PhD, SUNY at Buffalo, 1992

**Paul W. Shea (1996; 1994-96, part-time)**

***Director of Off-Campus Programs; Assistant Professor of Religion***

BA, Houghton College, 1969; MDiv, DMiss, Trinity Evangelical Div. Sch., 1973, 1994

**Patty-Jeanne Slaughter (2000 spr.)**

***Assistant Professor of Therapeutic Recreation***

BS, Houghton College, 1988; MA, New York Univ., 1992; PhD, Indiana State Univ., 1996

**Jeffrey B. Spear (1989-91; spr, 1997; 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, Chair, Department of Psychology and Sociology***

BA, Houghton College, 1969; MA, Temple University, 1972; PhD, St. John's Univ., 1982

**Daryl H. Stevenson (1982)**

***Professor of Psychology; Robert I. Davidson Distinguished Professor (1998-01)***

BA, Houghton College, 1970; MS, SUNY College at Brockport, 1975; MA, PhD, Rosemead Graduate School of Psychology, 1978, 1981

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**Gudrun M. Stevenson** (1990; part-time)

**Assistant Professor of German**

BA, Houghton College, 1970; MA, Middlebury College, 1996

**William Christopher Stewart** (1993)

**Associate Professor of Philosophy**

BA, Wheaton College, 1982; MA, Western Kentucky University, 1988; MA, PhD, University of Notre Dame, 1989, 1992

(*Sabbatical, AY2000-01*)

**William R. Swanson** (1994)

**Professor of Physical Education**

BS, MS, EdD, Illinois State University, 1974, 1980, 1989

**Cynthia Symons** (1994)

**Associate Professor of Psychology**

BA, Utica College, 1986; MS, PhD, Syracuse University, 1990, 1992

**Mark L. Taylor** (1995)

**Associate Professor of Music**

BMus, Grand Rapids Baptist College, 1978; MM, Michigan State University, 1981; PhD, Case Western Reserve University, 1995

**Timothy S. Trezise** (1996, part-time)

**Instructor of Physical Education; Athletic Trainer**

BA, SUNY at Cortland, 1988; MS, Utah State University, 1995

**Angela Tudorii** (2000)

**Assistant Professor of French**

BA, Babes-Bolyai University (Romania), 1977; MA, Ecole des Hautes Etudes en Sciences Sociales (France), 1996

**Julie Tunstall** (1996-98; [1995,1998 part-time])

**Interim Assistant Professor of Music**

BA, Portland State University; MM, DMA, Eastman School of Music, 1991, 1994

**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

**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)

**Professor of Christian Ministries; Preacher in Residence; Director of Ministerial Education**

BA, Circleville Bible College, 1972; BA, Houghton College, 1986; MA, Asbury Theological Seminary, 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)

**Interim Instructor of Mathematics Education**

BA, Houghton College, 1998; MS, Syracuse University, exp'd. 2000

**Matthew Webb** (1992)

**Director of Student Programs**

BA, Bethel College, 1991; MS, Alfred University, 1994



**James M. Wolfe (1988)**

***Professor of Biology; Chair, Department of Biology***

BA, Gordon College, 1975; MS, University of Oklahoma, 1978; PhD, University of Rhode Island, 1988

**Jeffrey P. Wolinski (1999)**

***Assistant Professor of Physics***

BA, Rutgers University, 1983; MA, PhD, Harvard University, 1986, 1991

**Daniel P. Woolsey (1991)**

*(Sabbatical, spring, 2001)*

***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)**

***Associate Professor of Physics***

BS, Northwest Nazarene College, 1987; PhD, Massachusetts Institute 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***

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

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**Jeff E. Carter (1995)**

***Adjunct Assistant Professor of Religion***

BS, Grambling State University, 1969; MS, Canisius College, 1978

**Catharine Daggett (1991)**

***Adjunct Instructor in Horsemanship***

BFA, Alfred University, 1958

**John Ross Dixon (1995)**

***Adjunct Assistant Professor of Religion***

AB, Lane College, 1962; EdM, EdD, SUNY Buffalo, 1967, 1974; MA, Christ the King Seminary, 1992

**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

**Shannon O'Roarke (2000)**

***Adjunct Assistant Professor of Philosophy***

BA, MA, Colorado State University, 1985, 1988; PhD, University of Connecticut, 1997

**Anthony Petrillo (1996)**

***Adjunct Professor of Computer Science***

BA, SUNY at Buffalo, 1980; MBA, *ibid.*, 1982; PhD, *ibid.*, 1992

**David Pollock (1986)**

***Adjunct Assistant Professor of Social Science***

BS, Houghton College, 1963; DPd, Houghton College, 2000

**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

**John M. Andrews (1935-74)**

***Associate Professor in Music***

BM, Eastman School of Music of the University of Rochester, 1932; MM, *ibid.*, 1941; DMus, Houghton College, 1986

**Eldon E. Basney (1951-78)**

***Professor of Strings***

BA, Johns Hopkins University, 1933; Boise Memorial Composition Scholarship, 1936; Certification in Music, Peabody Institute, Johns Hopkins University, 1938

**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

204/Faculty

**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

**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

**Willard G. Smith (1935-72)**

***Treasurer and Business Manager***

BA, Houghton College, 1935; MA, PhD, New York University, 1938, 1951; LLD, Houghton College, 1972

**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; MSED, 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

## Retirees

**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

**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

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