

# ACADEMIC CATALOG



2010-2011



**HOUGHTON**  
COLLEGE

800.777.2556  
One Willard Ave., Houghton, NY 14744  
[www.HOUGHTON.edu](http://www.HOUGHTON.edu)

*Any links in this catalog have been disabled due to website changes that have rendered the links unusable.*



*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.*

#### **Accreditations**

Houghton College is accredited by the Middle States Commission on Higher Education, 3624 Market Street, Philadelphia, PA 19104 (267-284-5000) and the Regents of the University of the State of New York. It also is a member of the National Association of Schools of Music and the Teacher Education Accreditation Council.

#### **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.

*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.*

# Contents

Calendars .....	4, 5
General Information .....	6
Admission .....	11
Financial Information .....	16
Tuition, Off-Campus Programs .....	16
Room, Board, Fees .....	17
Scholarships, Grants, Loans .....	20
Academic Information .....	32
Courses of Instruction .....	45
Academic Programs .....	54
Accounting .....	54
Adult Degree Completion (P.A.C.E.) .....	231
Applied Physics .....	109
Art .....	57
Australian Studies .....	62, 215, 217
Bible .....	62
Biochemistry .....	66
Biology .....	67
Business Administration .....	72
Chemistry .....	77
Christian Formation .....	80
Christian Ministries .....	82
Communication .....	83
Computational Physics .....	89
Computer Science .....	90
Earth Science .....	93
Economics .....	93
Education .....	95
Engineering Program .....	109
English .....	111
Environmental Science .....	113
Equestrian Studies .....	114
Family Studies .....	116
Foreign Languages .....	116
Forestry .....	122
General Science .....	123
History .....	124
Honors Programs .....	127
Humanities .....	129
Information Technology Management .....	130
Integrative Studies .....	48
Intercultural Studies .....	131
International Development .....	138
International Relations .....	138
Islamic Studies .....	140
Linguistics .....	141
Mathematics .....	142
Medical Technology .....	145
Missions .....	146
Music .....	148
Pastoral Ministry .....	200
(under Religion, Ministerial Concentration)	
Philosophy .....	166
Physical Education .....	170
Physics .....	180
Political Science .....	183
Pre-Art Therapy .....	187
Pre-Health Professions .....	188
Pre-Law .....	189
Pre-Medical .....	188
Pre-Pharmacy .....	190
Pre-Physical Therapy .....	190
Pre-Seminary .....	191
Psychology .....	192
Recreation .....	196
Religion .....	200
ROTC .....	203
Sociology .....	204
Sports Ministry .....	207
TESOL .....	208
Theology .....	209
Urban Ministry .....	211
Writing .....	212
Index .....	269
Off-campus Programs .....	214
Adult Learning Opportunities .....	231
Student Life .....	237
Campus Information .....	248
Buildings and Facilities .....	248
Houghton College at West Seneca .....	250
Trustees, Officers, Faculty .....	252
Administrators .....	253
Faculty .....	254
Faculty Emeriti .....	265

# 2010-2011 College Calendar

## FALL SEMESTER

Aug 27, Friday  
 Aug 28, Saturday  
 Aug 30, Monday  
 TBD  
 Sep 5-8, Sun.-Wed.  
 Sep 13, Monday  
 Oct 1-2, Fri.-Sat.  
 Oct 14-17, Thur.-Sun.  
 Oct 18, Monday, 7:45 a.m.  
 Oct 20, Wednesday  
 Oct 26, Tues., 11 p.m.  
 Nov 8, Monday  
  
 Nov 24-28, Wed.-Sun.  
 Nov 29, Mon., 7:45 a.m.  
 Dec 10, Friday  
 Dec 13-17, Mon.-Fri.  
 Dec 17, Fri., 12:30 p.m.  
 Dec 29, Wednesday, 11 p.m.

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

## SPRING SEMESTER

Jan 10, Monday, 7:45 a.m.  
 Jan 16-22, Sun.-Sat.  
 Jan 24, Monday  
 Feb 26- Mar 6, Sat.-Sun.  
 Mar 7, Monday, 7:45 a.m.  
 Mar 7, Monday,  
 Mar 8, Tuesday, 11 p.m.  
 March 16, Wednesday  
 April 4, Monday  
  
 Apr 16-25, Sat.-Mon.  
 Apr 26, Tuesday, 7:45 a.m.  
 May 2, Monday  
 May 3, Tuesday  
 May 3-10, Tues.-Tues.  
 May 10, Tuesday,  
 May 10, Tuesday, 4 p.m.  
 May 13, Fri., (tbd)  
 May 14, Sat., 10:00 a.m.  
 May 23, Monday, 11 p.m.

Classes begin  
 PRAXIS  
 Last day to add full semester courses\*  
 February break  
 Classes resume  
 Second half semester courses begin\*  
 Mid-semester grades due  
 H.E.L.P. Day-no classes during the day  
 Last day to withdraw from a full semester course without an F\*  
 Easter vacation  
 Classes resume  
 Last day of classes  
 Reading day until 7:00 p.m./first exam  
 Final exams (see exam schedule)  
 Semester ends, 12:30 p.m.  
 Selected senior grades due  
 Baccalaureate  
 Commencement  
 All final spring grades due

## MAYTERM

May 17, Tuesday, 8:00 a.m.  
 Jun 3, Friday,  
 Jun 10, Friday,  
 Jun 14, Tuesday, 11 p.m.

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

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

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# 2011-2012 College Calendar

<b>FALL SEMESTER</b>	Aug 26, Friday	New students arrive
	Aug 27, Saturday	New student orientation
	Aug 29, Monday	Classes begin
	TBD	Student teacher orientation and validation
	Sep 4-7, Sun.-Wed.	Christian Life Emphasis Week (tentative)
	Sep 12, Monday	Last day to add full semester courses*
	Oct 7-8, Fri.-Sat.	Founders' Day/Homecoming
	Oct 13-16, Thur.-Sun.	October break
	Oct 17, Monday, 7:45 a.m.	Classes resume
	Oct 20, Thursday	Second half semester courses begin*
	Oct 18, Tues., 11 p.m	Mid-semester grades due
	Nov 7, Monday	Last day to withdraw from a full semester course without an F*
		Thanksgiving recess
	Nov 23-27, Wed.-Sun.	Classes resume
	Nov 28, Mon., 7:45 a.m.	Last day of classes
	Dec 9, Friday	Final exams (see exam schedule)
	Dec 12-16, Mon.-Fri.	Semester ends
	Dec 16, Fri., 12:30 p.m.	Final grades due
	Dec 28, Wednesday, 11 p.m.	
<b>SPRING SEMESTER</b>	Jan 9, Monday, 7:45 a.m.	Classes begin
	Jan 15-21, Sun.-Sat.	PRAXIS
	Jan 23, Monday	Last day to add full semester courses*
	Feb 25- Mar 4, Sat.-Sun.	February break
	Mar 5, Monday, 7:45 a.m.	Classes resume
	Mar 5, Monday,	Second half semester courses begin*
	Mar 13, Tuesday, 11 p.m.	Mid-semester grades due
	March 14, Wednesday	H.E.L.P. Day-no classes during the day
	March 26, Monday	Last day to withdraw from a full semester course without an F*
		Easter vacation
	Mar 31-Apr 9, Sat.-Mon.	Classes resume
	Apr 10, Tuesday, 7:45 a.m.	Last day of classes
	Apr 30, Monday	Reading day until 7:00 p.m./first exam
	May 1, Tuesday	Final exams (see exam schedule)
	May 1-8, Tues.-Tues.	Semester ends, 12:30 p.m.
	May 8, Tuesday,	Selected senior grades due
	May 8, Tuesday, 4 p.m.	Baccalaureate
	May 11, Fri., (tbd)	Commencement
	May 12, Sat., 10:00 a.m.	All final spring grades due
	May 21, Monday, 11 p.m.	
<b>MAYTERM</b>	May 15, Tuesday, 8:00 a.m.	Classes begin
	Jun 1, Friday,	Three-week courses end
	Jun 8, Friday,	Four-week courses end
	Jun 12, Tuesday, 11 p.m.	Mayterm final grades due

**\*Due to the shorter time frame, those courses which are only one-half of a semester have different last days to add and withdraw. Check Course Offerings 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.

## Creedal Statement

Christian institutions over the past 2000 years have attempted to articulate the framework of their convictions in cognitive terms called creeds. As an academic institution, we recognize that all learning happens within a framework of assumptions and presuppositions about the ultimate questions of human existence--the meaning of persons and the source and limits of knowledge. At Houghton, as at most Christian liberal arts colleges, we seek to make these assumptions explicit.

Our framework of conviction draws heavily on the affirmations of the Apostle's Creed. It also reflects the par-

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ticular concerns of the historical period within which it was articulated.

It is these convictions that we bring into dialogue with our academic studies, in ways that both our faith and our studies may be enlarged and sharpened.

This statement of doctrinal views has been adopted by the board of trustees of Houghton College:  
*We believe that the Scriptures of the Old and New Testaments are fully inspired of God and inerrant in the original writings, and that they are of supreme and final authority for faith and practice.*

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

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

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

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

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

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

*We believe in the personal existence of Satan.*

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

### **Community Expectation**

All community members, including students, commit to Houghton's Community Covenant. This commitment signals our desire to live together in Christian community and fellowship. The Student Guide gives a more complete statement of expectations for community life, including student behavior and lifestyle.

As part of our commitment to community life, the Houghton community gathers for chapel three times a week (Monday, Wednesday and Friday). Students commit to attending at least 2/3 of these chapels per semester.

### **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 Commission on Higher Education, 3624 Market Street, Philadelphia, PA 19104 (267-284-5000).

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



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The leadership of Houghton College continued under the guidance of Wilber T. Dayton from 1972 until 1976 and Dr. Daniel R. Chamberlain from September 1976 - May 2006. Dr. Shirley A. Mullen assumed the presidency of Houghton College in June 2006. Current enrollment is approximately 1,200.

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

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

### **Locations**

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

When the former Buffalo Bible Institute in West Seneca 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.

### **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 Commission on Higher Education. The Middle States Commission on Higher Education, 3624 Market St, Philadelphia, PA 19104 (267.284.5000) is an institutional accrediting agency recognized by the U. S. Secretary of Education and the Council for Higher Education Accreditation. The most recent renewal of this status was awarded in 2005.

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

The Education Department is a member of the Teacher Education Accreditation Council.

### **Houghton Graduates**

Each year an average of 65 percent of Houghton's graduates go on to full-time employment. The remaining 35 percent enter graduate school within a year of leaving Houghton. Approximately 16 percent of our graduates go into full-time Christian service. The remainder tend to enter professional fields such as education, business, medicine, law and social services. Post-graduation statistics are available from the career services office.

### **Christian College Consortium**

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

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



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The other members of the consortium are: Asbury College, Wilmore, KY; Bethel University, St. Paul, MN; George Fox College, Newberg, OR; Gordon College, Wenham, MA; Greenville College, Greenville, IL; Malone College, Canton, OH; Messiah College, Grantham, PA; Seattle Pacific University, Seattle, WA; Taylor University, Upland, IN; Trinity International University, Deerfield, IL; Westmont College, Santa Barbara, CA; and Wheaton College, Wheaton, IL. 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 (CCCU), an organization of 105 Christian colleges and universities. The Council's American Studies Program in Washington, D.C. offers students a wide range of study and internship opportunities, usually occupying one semester of the senior year. The Latin American Studies Program in Costa Rica provides an opportunity for cross-cultural study and an exposure to the problems of developing countries. The Los Angeles Film Studies Program engages students in the professional activities, cultural impact, and ethical issues of the contemporary film and television industry. Some details about these programs may be found in the Off-Campus Programs 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, D.C. 20002.

### **Western New York Consortium**

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

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

### **Five-College Committee**

Houghton has established an ongoing consortium relationship with four other colleges serving the northern tip of Appalachia: St. Bonaventure University, Alfred University, Jamestown Community College (Olean) and the SUNY College of Technology at Alfred. Details of cross-enrollment opportunities may be found through the academic records office.

### **Rochester Area Colleges**

The Rochester Area Colleges is a consortium of higher education institutions in the Rochester, New York area. Founded in 1970, Rochester Area Colleges has numerous area public and private colleges as members and provides numerous collaborative working opportunities for colleges and their students. The purpose of the association is to support the functions of career development, placement and experiential education in the region. Participating institutions are: Alfred University, Finger Lakes Community College, Genesee Community College, Hobart & William Smith Colleges, Houghton College, Keuka College, Monroe Community College, Nazareth College, Roberts Wesleyan College, Rochester Institute of Technology, St. Bernard's Institute, St. John Fisher College, SUNY Alfred, SUNY Brockport, SUNY Empire State College, SUNY Geneseo, and University of Rochester. For further information, contact 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

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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. The academic records office has further information.

### **Educational Rights and Privacy Act**

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

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

### **Crime Statistics Reporting**

The Houghton College Committee on Harassment Policy and Prevention (CHPP) serves in an advisory role for campus safety and will provide upon request all campus crime statistics as reported to the United States Department of Education. This list is also available through the Safety and Security office and can be requested by contacting the Director of Safety and Security at 585.567.9543.

For a list of crime rates at Houghton College, as well as comparative rates with other colleges nationwide, visit the federal college crime registry at: <http://ope.ed.gov/security/index.asp>.

### **Religious Observances**

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

# Admission



Houghton seeks to admit students who appear capable of success. The Office of Admission carefully reviews each application, including transcripts, standardized test scores, Christian character recommendation and other supporting documents.

## **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 the right to operate as a church-related institution and to develop policies consistent with the religious tenets of its sponsoring denomination, The Wesleyan Church ([www.wesleyan.org](http://www.wesleyan.org)).

## **Application Forms**

A student will be considered for admission after all parts of the application are received, including the signed completed application form, a Christian character recommendation, high school transcripts, SAT or ACT scores and the application fee. While Canadian applicants are not required to submit SAT or ACT scores, doing so is recommended for those seeking scholarship consideration or admission to the First-Year Honors Program.

Application forms are available from the Office of Admission, Houghton College, Houghton, NY 14744. E-mail: [admission@houghton.edu](mailto:admission@houghton.edu); Web: [www.houghton.edu/admission/apply.htm](http://www.houghton.edu/admission/apply.htm); phone: 800.777.2556.

## **Application Deadlines**

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. An accepted applicant is asked to confirm his or her intention to enroll by paying a \$300 enrollment deposit by May 1, thereby reserving a place in the entering class.

Applications for spring semester admission must be received by December 1.

## **Application Fee**

A \$40 nonrefundable application fee is normally charged on all applications. The application fee will be waived for students who regularly attend a Wesleyan Church.

**Music Majors**

Music majors must apply separately to, and audition for, The Greatbatch School of Music. Music applications can be obtained from The Greatbatch School of Music or completed online (no additional application fee). E-mail: [music@houghton.edu](mailto:music@houghton.edu); phone: 800.777.2556, ext. 4000; Web: [www.houghton.edu/Greatbatch](http://www.houghton.edu/Greatbatch).

**First-Year Honors Program Admission**

Upon admission to Houghton, selected students will be invited to apply for admission to the First-Year Honors Program on the basis of their academic profile. The Admission Office will begin the formal invitation process for the program in early November, continuing through early January. Finalists and their parents will be invited to campus for an interview weekend.

Decisions regarding admission to the program will be made by late March. Approximately 75 students will be admitted to the program annually. A student's intended major is not a factor in the selection. For further information please contact the Admission Office or visit the following Web site: [www.houghton.edu/admission/fyhp](http://www.houghton.edu/admission/fyhp).

**Recommended High School Courses**

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

English .....	4 years
Foreign Language .....	at least 2 years
Mathematics .....	3 years
History or Social Science .....	at least 3 years
Science .....	at least 2 years

**Entrance Examinations**

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

Spring 2005 revisions of the SAT added a required writing section in addition to the traditional critical reading and mathematics sections. Houghton College will primarily focus attention on the traditional sections of the exam. Writing section scores will be considered, both for admission and scholarship purposes, but will not carry the same weight as critical reading and mathematics. The same is true for the optional ACT Writing Test.

Information regarding the SAT may be obtained from [www.collegeboard.com](http://www.collegeboard.com). ACT information may be found at [www.act.org](http://www.act.org).

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

**International Students**

Application requirements for International Students may be found on our Web site: [www.houghton.edu/admission/internationals-tcks/](http://www.houghton.edu/admission/internationals-tcks/) or by contacting the Director of Admission.

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 ([www.ets.org](http://www.ets.org)), and see that these scores are forwarded to the college. Students with a paper-based TOEFL score of 550 or higher, an Internet-based score of 80 or higher, or a computer-based score of 213 or higher, may be offered admission providing all other factors are acceptable.

**High School Equivalency**

Under some circumstances, an applicant may be considered for admission on the basis of adequate scores on the New York State High School Equivalency examination or on the USAF high school equivalency test



of General Education Development, High School Level. In order to qualify for such consideration, he or she must earn a composite score of 2500 or higher, with no individual test score below 450. 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 the successful completion of 24 semester hours at Houghton. Students who are considering leaving high school early should consult with the Houghton College admission and student financial services offices. In some situations, students who attend college full-time before completing high school are not eligible for financial aid.

### **Advanced Placement Tests**

Advanced course standing and/or college credit may be granted to students who take the College Entrance Examination Board Advanced Placement (AP) Tests. These are given in May to students who have taken high school courses equivalent to first-year college courses. For the current list of approved tests and applications of credit, please see [http://campus.houghton.edu/orgs/records/AP\\_Guidelines.pdf](http://campus.houghton.edu/orgs/records/AP_Guidelines.pdf).

Inquiry concerning these tests should be made to the high school guidance office or to Advanced Placement Program, College Entrance Examination Board, [www.collegeboard.com](http://www.collegeboard.com).

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## CLEP

College-Level Examination Program (CLEP) tests for advanced placement and/or credit may be taken at Houghton College. 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 level 205 foreign language course, and at the intermediate level provided the testing is done prior to the completion of the first advanced course. There is a \$65 fee for each CLEP test. More information on CLEP exams may be obtained from the Academic Records Office, the Student Academic Services Office, or [www.collegeboard.com](http://www.collegeboard.com).

## Transfer Student Admission

Transfer students are welcome at Houghton with preference given to individuals who present a grade-point average of 3.00 or higher. Transfer students are expected to reside initially in college housing, except students commuting from home.

Transfer students must submit an official transcript from all colleges attended in addition to a high school transcript and Christian character recommendation. SAT or ACT scores are generally not required for transfers.

## Transfer Credit Guidelines

- Transfers must complete at least 30 hours at Houghton and earn at least 50 percent of their major hours here.
- Transfer credits are accepted from institutions that are regionally accredited and listed by the U.S. Office of Education in its current Education Directory, Colleges and Universities.
- A maximum of 32 hours of advanced placement (AP), CLEP, correspondence, distance education, or other non-classroom credit will transfer to Houghton.
- Up to 67 credit hours may be transferred for appropriate courses completed with a grade of C- or above from a regionally-accredited community college or a Bible college accredited by the Association for Biblical Higher Education (ABHE).
- The Academic Records Office, in consultation with relevant department chairs, will assess all transfer credits. Except as noted below, credit to meet Houghton requirements is granted on a course-by-course basis when it is reasonably clear that the course being transferred would, if taken at Houghton College, fulfill Houghton College requirements.
- Only grades received at Houghton are used to figure the Houghton College grade point average; accepted hours earned elsewhere, however, will be posted to the Houghton transcript.
- At least 62 credit hours must be taken at Houghton to be eligible for graduation Latin honors (*cum laude*, *magna*, or *summa cum laude*).

## Transfer Students with a Full Year of College Credit

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

## Junior Transfers from Four-Year Baccalaureate Institutions

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

1. Students who have earned at least 40 transferable hours from a single baccalaureate institution may complete either Houghton's foreign language requirement or the foreign language requirement of the institution where the majority of transferable hours have been earned.
2. Students who have earned at least 45 transferable hours in at least seven of the following 10 areas - writing,

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literature, communication, foreign language, social science, philosophy, fine arts, history, math, and science - need only take Biblical Literature or, if eligible, a 200 level Bible course (excluding BIBL 251 and BIBL 261) *and* Introduction to Christianity to complete their Integrative Studies requirements.

### **Students with an Associate Degree**

Transfer students who have earned an associate in arts (A.A.) or associate in science (A.S.) degree from a regionally -accredited college may enter as juniors. Such students must take Biblical Literature or, if eligible, a 200 level Bible course (excluding BIBL 251 and BIBL 261) *and* Introduction to Christianity to complete their Integrative Studies requirements. This policy does not apply to students who have attended Houghton previously; nor does it apply to students who have earned an associate in applied science degree.

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

### **Re-admission**

Students who have withdrawn from Houghton College and wish to return must re-apply for admission and ensure that the college receives transcripts for any college work taken in the interim. Re-admission is not automatic, but is based on the student's entire academic record, previous Houghton involvement, and other life circumstances since leaving Houghton.

### **Homeschoolers**

Houghton College welcomes applications from homeschooled students. Approximately 40-50 students each year come to the college from a homeschool background.

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

New York residents wishing to receive state need-based financial aid (NY State TAP) must demonstrate the "Ability to Benefit" (ATB) from higher education. Presently, the SAT and ACT are not acceptable ATB tests. A GED or high school diploma (from a school registered with the state of New York) is acceptable, as are passing scores on one of several basic skills tests. A letter attesting to educational equivalency from a local public high school official will also meet the ATB requirement. The following link provides helpful information regarding ATB requirements for homeschooled students: [http://www.hesc.com/content.nsf/SFC/Frequently\\_Asked\\_Questions\\_Ability\\_to\\_Benefit](http://www.hesc.com/content.nsf/SFC/Frequently_Asked_Questions_Ability_to_Benefit)

Homeschoolers who have taken college courses should send official transcripts of that work to Houghton.

### **Part-time Students**

Individuals who wish to take a class as a part-time student must complete a special student application form, which can be obtained through the admission office. Similarly, high school students (and homeschoolers) who wish to take a class prior to graduating from high school must complete the high school student application form, which can be obtained through the admission office. Students must have completed their sophomore year in order to take a class at the college. Certain other stipulations and restrictions may apply; please contact the admission office for further details.



# Financial Information



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

## Current Year

### General

The *average annual college* charges are summarized below. Tuition is a flat rate for 12-18 credits per semester, the number of hours necessary to be considered a full-time student and to be eligible for most aid programs. If you are considering part-time attendance, please contact the Student Financial Services Office (SFSO) for more information. Travel, personal expenses, textbooks and supplies are costs that vary and are not included in the fixed costs below. However, the SFSO will provide an estimate of these expenses as part of the financial aid package. The estimate for travel ranges from \$500-\$1,750 depending on the distance traveled.

Tuition.....	\$25,360
Room rent.....	\$3,932
Board.....	<u>\$3,398</u>
Total.....	\$32,790

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

### Tuition rates

Tuition (flat rate: 12-18 hours per semester).....	\$12,680
Tuition (per hour, 1-11 hours).....	\$1065
Tuition (per hour, for hours over 18).....	\$585
Fee for auditing class (if not covered under flat rate).....	\$50
Tutorial fee (per hour; add to tuition fee) .....	\$300
Tuition (per hour Mayterm overload and summer sessions).....	\$585

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

Tanzania Program (includes room, board, fees and airfare).....	\$4775
Houghton in London (includes room, board, and fees) .....	\$5400
Honors Program (Meaning of the West)	
(includes room, board, fees and airfare).....	\$5085
Honors Program (East Meets West)	
(includes room, board, fees and airfare).....	\$950
GO-Ed (includes room, board, fees and airfare	
from a gateway airport) .....	\$4475

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) .....	\$340
Hour lesson (for 3-4 hours credit).....	\$680
Hour-and-a-half lesson (for 5-6 hours credit).....	\$1020

Housing: Room rates per semester are as follows:

Dorm doubles.....	\$1,966
Doubles in townhouses and apartments .....	\$2,141
Gillette dorm single .....	\$2,376
Dorm triple.....	\$1,700
Gillette quad.....	\$1,404
Dorm singles (except Gillette), double held as single, triple held as double, flat single, and townhouse single.....	\$2,829
Singles in townhouses and apartments .....	\$2,883
College Farm .....	\$1,456
Brown House.....	\$1,887

**[Damage deposit (per year, refundable) for townhouses and Rothenbuhler Hall: \$150.]**

Rooms through Community Living Option vary in cost depending on location and quality.

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

21 meals (per week) plan/230 block (per semester).....	\$1,699
<b>(21-meal plan is required for first-year students; sophomores, juniors and seniors in traditional residence halls must be on 14- or 21-meal plan)</b>	
14 meals (per week) plan/170 block (per semester).....	\$1,498
7 meals (per week) plan/90 block (per semester).....	\$802
<i>There are no board plans available at the West Seneca campus.</i>	

College fees

Application .....	\$40
Art studio lab fee.....	\$130
Certification fee for Wilderness first Responder .....	\$185
Communication lab fee.....	\$130
Enrollment deposit (annual; credited toward tuition/room)	
First-year students.....	\$300
Returning students.....	\$100
Highlander .....	\$520
Horsemanship I and II course fee .....	\$180
Horsemanship (all other courses with labs).....	\$360
Late registration fee .....	\$250
Science laboratory fee (per lab).....	\$130
Science Honors laboratory fee .....	\$250
Sickness and accident coverage (12 months) .....	TBA
Accident only insurance.....	TBA
Special Test Fee .....	\$15
Transcript fee (each copy).....	\$5
Vehicle registration/year, depending on parking location .....	\$30 - \$150

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

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

GENERAL

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

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

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.

## Board

All students who do not commute from home are required to board in the college dining hall. All board is arranged on a contract basis with various plans available. All first-year students are required to be on the 21-meals-per-week or 230 block plan. All sophomores, juniors and seniors may elect either the 14-meal/170 block or 21-meal/230 block plan regardless of where they live. Juniors or seniors living in housing with full cooking facilities and who have written verification from their landlords may elect a 7-meal/90 block, 14-meal/170 block, or 21-meal/230 block plan. The contract period begins on the day preceding student registration and does not include meals during vacation periods.

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

## Mayterm

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

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

***\*Attempted hours include any hours from which a student withdraws and receives a grade of***

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

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

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

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**Student Fees** (General information of student fees appears below.)

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

**Enrollment deposit, required** annually of all students, reserves the student's position in the fall registration list. Due by May 1 for all new students and by the room drawing date for all returning students, the deposit is **non-refundable** but is credited toward tuition.

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

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

**Late registration** - assessed to each student who fails to complete the full registration process, including payment in full for the account balance (less financial aid and amounts budgeted through TMS/Tuition Management Systems) according to the billing statement and prior to the start of the semester.

**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.

### **Payments**

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

A **monthly payment plan** is available through TMS/Tuition Management Systems that allows fixed payments of annual college expenses over eight to twelve-month periods. The plans begin on the fifteenth of each month in April and end in August. Enrollment can be done online at [www.afford.com](http://www.afford.com) or by calling 1-888-463-6994. If interested complete information about the plan is available from the Student Financial Services Office.

### **Off-campus Study**

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

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## **Financial Delinquency**

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

## **Title IV Refunds**

Houghton College's refund policy is in accordance with the U.S. Department of Education's regulations. The policy applies to all students who do not complete the enrollment period for which they have been charged. The term "Title IV Funds" refers to the Federal financial aid programs authorized under the Higher Education Act of 1965 (as amended) and includes the following programs: Federal Direct loans, Federal PLUS loans, Federal Perkins loans, Federal Pell Grants, and Federal SEOG.

A student's withdrawal date is the date the student began the institution's withdrawal process or officially notified the institution of intent to withdraw; or the student's last date of attendance at a documented academically-related activity; or the midpoint of the period for a student who leaves without notifying the institution. Refunds on all charges, including tuition, room and board, and special fees, will be prorated on a per diem basis based on the academic calendar up to the 60 percent point in the semester. There are no refunds after that time. Students withdrawing before the classes begin for a given term will receive a 100 percent refund of charges. A copy of the worksheet used for the refund calculation can be requested from the Student Financial Services Office.

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

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

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

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

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# *Scholarships, Grants and Loans*

## **Financial Aid (Student Financial Services)**

The goal of the Student Financial Services Office is to assist families through the financial aid process and to help them identify sources of aid so that a Houghton education is affordable. Houghton College distributes aid in compliance with all federal, state, and institutional policies and procedures. 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.

## **Free Application for Federal Student Aid (FAFSA)**

Any student who wishes to be considered for aid funds administered by Houghton College must submit a copy of the FAFSA annually listing Houghton College (code number: 002734) as a recipient. The FAFSA may be submitted online after January 1<sup>st</sup> at [www.fafsa.gov](http://www.fafsa.gov). Priority consideration is given to students whose applications are received by March 1. **Houghton College aid may not be renewed to those applying for it after July 1.**

Houghton College uses the federal methodology formula to determine financial need. The expected family contribution, which is a calculation of the federal methodology formula from the FAFSA data, is subtracted from the cost of attendance to determine need. The SFSO attempts to meet the financial need of each student through the various financial aid programs.

All grants, scholarships, and Federal Perkins loans are credited to the student's account by the Accounting Office each semester. Federal college work-study earnings are paid by check (or direct deposit) if requested, to the student on a bi-weekly basis. Direct 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 Direct checks are credited to the student's account. Any credit created by the loan proceeds will be disbursed to the student or parent by request.

## **Requirements for Financial Aid Consideration**

A student must be a matriculated student making satisfactory progress to receive financial aid. A matriculated student is one who has met the entrance requirements and is pursuing a program of study toward a degree.

## **TITLE IV STUDENT ASSISTANCE PROGRAMS**

### **Federal College Work-Study**

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

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

### **Federal Pell Grant**

The Federal Pell Grant is an entitlement to students who qualify under a federal formula which determines eligibility. To be eligible, a student must be a U.S. citizen or permanent resident and have not earned a bachelor's degree. This award is a grant, not a loan. For the 2010-11 academic year the maximum Pell Grant is \$5,550.

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### **Federal SEOG**

The Federal Supplemental Educational Opportunity Grant is a federally-funded grant program administered by Houghton. FSEOG grants are awarded first to Pell Grant recipients with low estimated family contributions. FSEOG recipients must have demonstrated financial need. FSEOG is available to full-time or half-time students. This award is a grant, not a loan. The average FSEOG award is \$750.

### **Federal ACG**

The Federal Academic Competitiveness Grant will provide \$750 to first year and \$1,300 to second year students. In order to qualify, a student must be a full-time undergraduate, a US citizen, a Pell Grant recipient, and have completed a "rigorous high school program." Second year students must also have maintained a 3.0 cumulative gpa.

### **Federal SMART**

The Federal SMART Grant will provide \$4,000 to third and fourth year students who are enrolled in an eligible major. In order to qualify, a student must be a full-time undergraduate, a US citizen, a Pell Grant recipient, must be majoring in biology, chemistry, computer science, math or physics, and must have maintained a 3.0 cumulative gpa.

### **Federal TEACH Grant**

The Teacher Education Assistance for College and Higher Education (TEACH) Grant Program provides grants of up to \$4,000 per year to students who intend to teach in a high-need field (Bilingual Education and English Language Acquisition, Foreign Language, Mathematics, Reading Specialist, Science and Special Education) in a public or private elementary or secondary school that serves low-income students. Recipients of the TEACH Grant must agree to teach for at least four academic years within eight calendar years of graduating.

### **Federal Perkins Loan**

The Federal Perkins Loan is a federally-funded program which provides loan funds for students to help meet their educational expenses. The program is administered by Houghton College, and recipients are selected on the basis of financial need. Recipients must be at least half-time students. The loans are interest- and payment-free until nine months after a student graduates or ceases attendance at the college. The annual average Perkins Loan borrowing limit is \$1,500.

### **Federal Subsidized Direct Loan**

Freshman may borrow \$3,500; sophomores \$4,500; juniors and seniors \$5,500 (based on conditional classification.) The interest rate for new borrowers is currently 5.6%. The Federal Direct Loan is based on financial need, and no interest accrues while the student is enrolled. Repayment is delayed until six months after cessation of enrollment as at least a half-time student.

### **Federal Unsubsidized Direct Loan**

In addition to the Direct Loan, students may borrow an extra \$2,000 in unsubsidized Direct Loan. Students who do not qualify for the need-based Direct Loan may borrow an equivalent amount in unsubsidized Direct Loan. Interest at 6.8% begins while the student is in school and principal repayment starts six months after cessation of enrollment as at least a half-time student.

### **Federal Direct Parental Loan for Undergraduate Students (PLUS)**

Parents may borrow a PLUS up to the cost of attendance minus any other financial aid. The current interest rate on a PLUS is 7.9%.



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

- The student must report all funds received from outside agencies.
- The student must continue to make satisfactory academic progress. (See below).
- The student must not owe any refunds on Pell Grants or other awards paid, or be in default on repayment of any student loan.
- The student must also sign an affidavit that all moneys received will be used only for the cost of attendance.
- The student must be in compliance with Selective Service regulations.

### **Alternative Student Loans**

Alternative Student Loans are private educational loans. 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 varies for Houghton student borrowers. Applications and information may be obtained at [www.houghton.edu/admission/finaid/government.htm](http://www.houghton.edu/admission/finaid/government.htm). Loan approval is based on certification by the SFSO and a worthy credit history for the student and co-signer.

### **New York State Tuition Assistance Program**

New York State's Tuition Assistance Program (TAP) is a state-funded program for New York state residents. A recipient of this award must be a full-time matriculated student in an approved program at an approved New York state post-secondary institution and must maintain satisfactory academic progress as defined in the first eight academic semesters as shown in the chart for satisfactory academic progress (below). Grants are based on the New York net taxable income of the preceding year. This program is an entitlement program. There is neither a qualifying examination nor a limited number of awards. To apply, students must complete a FAFSA and a separate TAP application. For the 2010-2011 academic year, the maximum TAP award for first-year students is \$5,000. Christian Formation students are ineligible for TAP unless they have declared a double major.

### **Veteran's Benefits**

Houghton College is approved by the New York State division of Veterans Affairs for the training of veterans. Houghton College also participates in the Yellow Ribbon Program for students receiving educational assistance under the Post-9/11 GI Bill. Application forms and information are available in the Student Financial Services Office.

### **Satisfactory Academic Progress**

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

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

Semesters	Min. credit hrs. enrolled	Credit hrs. that must be completed	Min. accrued credit hrs.	Cum. grade point average
1	12	6	6	1.1
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 SFSO 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 one-time waiver of the necessary academic requirements. Petitions will be considered based on physical injury or illness, extraordinary personal difficulty, or other special circumstances. If a student applies but is denied a waiver, they may reestablish eligibility for aid by successfully completing a semester with no financial aid.

## HOUGHTON COLLEGE SCHOLARSHIPS AND GRANTS

### Houghton College Academic Scholarships

Academic Scholarships are awarded to outstanding high school graduates who are accepted for admission to Houghton College and who exhibit scholastic achievement and academic potential.

To be considered for a Houghton College Academic Scholarship, a student must have combined SAT scores of 1650 or more (or ACT of 24) and a grade point average (GPA) of 3.2 or higher. 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 \$4,000 to \$15,000 for four years. Full-time attendance is required.

### Houghton College Grants

Houghton College provides financial assistance to students with demonstrated financial need or who exhibit other positive personal qualities. Consideration for Houghton Grants is given to but not limited to students with the following characteristics:

- Financial need
- Co-curricular involvement
- Leadership qualities
- Service to school, church, and/or community
- Diversity
- Regularly attends a Wesleyan church
- Wesleyan students pursuing full-time Christian service
- National Merit Finalists, National Achievement Scholars, or National Hispanic Recognition Scholars
- Parents employed in full-time Christian service as ministers or missionaries
- Parents or grandparents who are alumni of Houghton College
- International
- Have more than one family member enrolled at Houghton

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### **Performance Scholarships**

Performance Scholarships are awarded to students who display exceptional talent in fine arts or athletics. Art and music faculty and athletic coaches may nominate candidates to the Student Financial Services Office. The awards range from \$1000 to \$12,500 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 GPA is maintained.

### **Timothy R. Fuller Neighbor Grants**

New students who are graduates of a high school in Allegany County (NY), Cattaraugus County (NY), Livingston County (NY), McKean County (PA), Potter County (PA), Steuben County (NY), or Wyoming County (NY), and have attended that high school for at least two years are eligible for the Fuller Neighbor Grant. The Fuller Neighbor Grant is based on financial need with a maximum of \$6,000 per year and is renewable.

### **Phi Theta Kappa Scholarships**

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

### **Canadian Grants**

Canadian students will receive a \$4,000 grant to assist with the exchange differential. The student must be a matriculated full-time student who is a Canadian citizen and whose residence is in Canada.

### **Houghton College Matching Scholarships**

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

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

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

### **Wesleyan Campus Challenge and WBB Scholarships**

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

### **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 Student Financial Services Office. Recipients of these scholarships must submit a FAFSA by March 1 for priority consideration.

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### **Area-of-Residence Scholarships**

Arlin Scholarship (Central New York)  
Howard and Helen Barney (Whitesville)  
The Bezalel Award  
Ruth L. Bergen Scholarship (Western New York)  
Madolin C. Walchli Bliss Scholarship (Bolivar, then Wellsville)  
Byrd and Eva K. Bohannon Endowed Scholarship for Canadian Students (Ontario, Canada)  
Houghton College Foundation of Canada Scholarship  
Kenneth and Phyllis Canary Scholarship (Adirondack Region)  
Jesse Crowder, Jr. Scholarship  
Dayton Champlain District Scholarship  
Chester and Marjean Dayton Scholarship (Champlain District)  
Finger Lakes Chapter Scholarship  
Rose and Genevieve Galutera Scholarship (Hawaiian or international)  
H. Vernon and Marjorie W. Gibby Scholarship (Arcade)  
Frieda and Mildred Gillette Scholarship (international student)  
Haskinville Scholarship  
Clarence W. Hillman Memorial Scholarship (Pioneer High School)  
Ingham Scholarship (Hume and Allegany County)  
Joseph A. Kemp Scholarship (Pioneer High School)  
Sarah McLeod Scholarship (Appalachia)  
Gladys M. Moll Endowed Scholarship (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)  
Bertha Schiele Scholarship (Cuba)  
Simons Memorial Scholarship (Nunda)  
Steuben County Endowed Scholarship  
Walchli Family Scholarship (Bolivar, then Wellsville)  
Carl W. Walchli Scholarship (Bolivar, then Wellsville)  
West-Central Florida Alumni Scholarship  
Wetherbee Scholarship

### **Christian Service Scholarships**

Paul Timothy Anderson Memorial Scholarship  
Harriet Jones Findlay Scholarship for Sunday School Education  
McCamman-Nussey Scholarship  
Messersmith Christian Service Scholarship  
Moses Memorial Scholarship  
Professor William O'Byrne Endowed Scholarship  
Strock Scholarship  
United Wesleyan College Christian Service Scholarship

### **Ministry or Missions Scholarships**

Caroline V.S. Bergen Endowed Scholarship  
Ivan Brown Missions Scholarships  
William and Marjorie Calkins Scholarship  
Ray and Marianne Chamberlain Scholarship  
Chatlos Foundation Scholarship  
Bernice 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  
J. H. Lockwood Memorial Scholarship  
Joy Palmer Missionary Endowed Scholarship  
Norman and Grace Pusey Scholarship  
Paul S. Reeves Scholarship  
Claude Ries Scholarship  
Seaman Family Scholarship  
Carlyle and Scott Smith Scholarship  
Willard G. and Mae L. Smith Scholarship  
Cora Esther Sparks Memorial Scholarship  
James E. Spear Memorial Scholarship

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Wesleyan Missionary Kid Scholarship  
Earle L. Wilson Scholarship  
Ziegler-Bronner Scholarship

### **Music Scholarships**

Marion Anderson Voice Scholarship  
Wilfred and Mary Bain Scholarship  
Joanne L. Bingham Senior Music Scholarship  
Carolyn Keil Campbell Scholarship (Music)  
Clint A. Clifford Endowed Scholarship  
Frederick C. Denham Organ Scholarship  
Florence B. Dodds Scholarship  
Charles Finney Endowed Scholarship (Organ or Church Music)  
Ethel Boyce Johnson Music Scholarship  
Walter T. Knox Scholarship  
Robert R. Mackenzie Scholarship  
David and Laura Mee Music Scholarship  
S. Hugh and Wilfreda Paine Scholarship  
Presser Foundation Scholarship  
Jacob and Marie Smith Church Music Scholarship  
Paul and Mildred Temple Scholarship  
Dorothy Yahn Walrath Organ Scholarship  
Linford C. Wilcox Memorial Scholarship  
Robert W. Woods Memorial Scholarship  
Marilyn York Scholarship

### **Scholarships for Demonstrated Financial Need**

Emily Markham Adelman Scholarship in Medical Missions  
George I. Alden Trust Scholarship  
Laurel Davies Alexander Scholarship  
Barnes-Eldrod Scholarship  
Alfred and Hazel Benson Scholarship  
Kenneth Boon Scholarship  
The Rev. P. Arthur Brindisi Scholarship  
Fred J. Brotherton Charitable Foundation Scholarship  
Buffalo Endowed Scholarship  
Calvary Church Scholarship  
Carnahan-Jackson Foundation Merit Scholarship  
Antoinette Conway Scholarship  
Howard A. and Helen C. Crosby Scholarship  
Thomas Danks Scholarship  
Ethel Davis Scholarship  
Deerfoot Lodge Scholarship  
Sam and Louise Dominguez Scholarship  
Education Assistance Limited  
Emerson Foundation Scholarship  
Bess Fancher Scholarship  
Rachel Davison Fee Scholarship  
Folger Family Scholarship  
Kaltenbaugh General Scholarship  
Gardner Scholarship  
George and Jane Gibbins Scholarship  
Everett Graffam Scholarship  
Alice Houghton Scholarship  
Howes Trust Scholarship  
James Harrington Hurd Scholarship

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Samuel Howes II Scholarship  
Kalla Memorial Scholarship  
Kalle-Herbst Scholarship  
George Ivan Koonce Scholarship  
Carl J. Lambein Scholarship  
Luke and Pearl Lindley Scholarship  
Paul Maxwell Memorial Scholarship  
Richard W. McCann Scholarship  
McKee Scholarship  
Paul V. Miller Scholarship  
E.A. Moos Foundation Scholarship  
Richard and Evelyn Naughton Scholarship  
Jennie Parker Scholarship  
Mary R. Presley Scholarship  
Dr. and Mrs. Gustave Prinsell Scholarship  
Bert Rapp Scholarship  
Rev. Bertrand E. Rudd Endowed Scholarship  
Fred H. and Susanne K. Sawada Scholarship  
Franklin Shisler Scholarship  
Howard F. and Guendolen S. Smith Scholarship  
Snowberger Scholarship  
Ethlyn Stebbins Scholarship  
Janet Decker Steiner Memorial Scholarship  
Layton and Olive Vogel Scholarship  
Wight Memorial Scholarship

### **Special Category Scholarships**

Abdullah Scholarship: equestrian  
John M. Andrews III Scholarship: physics  
Lionel Basney Memorial Endowed Scholarship: English  
Benninger Scholarship: pre-med  
Betts Scholarship: transfer students  
John G. Brokaw III Scholarship: voice or pre-med  
Dorah Burnell Memorial Scholarship: chemistry  
Nora Rigall Calhoon Scholarship: communications  
Chastain Endowed Scholarship: minority or disabled  
Colossians 1:9-12 Scholarship: biology or education  
James A. Comstock Memorial Scholarship: pre-engineering  
Arnold Cook Scholarship: business administration  
Hazel I. Crocker Scholarship: mathematics  
Daniel Cutter Literature Scholarship: English  
Gordon Ferm Presbyterian Scholarship  
Gallagher Family: Salvation Army Scholarship  
Dr. & Mrs. DeVere Gallup Scholarship: music and science  
Ruth Ortlip Gibson Memorial Scholarship  
Mary Alice Baker Hazlett Scholarship  
William and Diane Hein Award: political science  
Joan C.V.G. Holman Scholarship: education  
Grover and Ingrid Jensen Scholarship: business administration  
Alan R. Johnson Scholarship: science  
Winston Johnson Scholarship: sociology  
Clyde E. Keeler Memorial Scholarship: chemistry  
Adrien R. LaBombarde Math Scholarship  
Lazares Lazarides Memorial Scholarship: business administration  
Edna Lennox Scholarship: communication  
Liberal Arts Scholarship  
Kenneth L. May Memorial Scholarship: soccer



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Emilie and Frank Mazza Endowed Scholarship: athletics, psychology or education  
Raymond and Ethel Meahl Scholarship: education  
Mephibosheth Scholarship: physically challenged  
Bruce Merritt Memorial Scholarship: pre-law  
George E. Moreland Scholarship: pre-med or pre-dental  
Jeffrey Osgood Memorial Scholarship  
Osgood Science and Academic Scholarship: physics  
S.W. Paine/Wycliffe Scholarship: linguistics  
Jeffrey R. Prinsell Scholarship: pre-med or pre-dental  
David C. Pollock Preachers and Missionary Kids Scholarship: MK or PK  
Richard W. Price Scholarship: science, math or pre-med  
Reynolds-Santor Women in Business Scholarship: business administration  
Jennifer A. Roorda Scholarship: psychology  
Crystal Rork Scholarship: biology  
Hans Rothenbuhler Scholarship: business administration  
Dr. George Seher Scholarship: pre-med or music  
Rosa Mae Smith Modern Language Scholarship: foreign language  
Paul Robert Steese Memorial Scholarship: Christian testimony  
Nancy L. 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 V. and Doris Bain Thompson Scholarship: secondary educ.  
Arvis & Mavis Tucker Scholarship: pre-med  
Valk Presbyterian Endowed Scholarship: Reformed Presbyterian or Lutheran  
Gerald & Mildred Vander Veen Scholarship Fund: business administration  
Weir Scholarship: resident assistant  
Artist A. Wilcox Scholarship: art  
Willett Alumni scholarship  
Daniel S. Willett Endowed Scholarship: communication or writing  
Lucele Hatch Wilson Scholarship: teaching  
Fred and Floy Willmott United Methodist Scholarship: United Methodist

### **High School Grant**

High school students may take up to seven 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, online courses, tutorials and internships. The student will be responsible for any associated course or lab fees. This grant may not be held concurrently with any other Houghton grants or scholarships.

### **Houghton Loan Funds**

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

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

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

### **General Student Loan**

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

**Name Loan Fund**

Living memorials may be established by creating a name loan fund of \$1,000 or over.

***Presently of use to students are the following:***

<u>Name Loan Funds</u>	<u>Established by</u>
Jennie E. Alexander Fund	Bequest
*Darrow Basney Fund	Professor & Mrs. Eldon Basney
Haven and Marie Burk Fund	
*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
United Wesleyan College	

***\*Interest-free while borrower is in school; six percent thereafter.***

All inquiries concerning scholarships, grants, or loans should be directed to: Student Financial Services Office, Houghton College, One Willard Avenue, Houghton, NY 14744 (585.567.9328).



# Academic Information

## **Academic Vice President and Dean of the College**

The dean is the chief academic officer at Houghton. Questions concerning academic policy should be directed to the dean of the college. The office is located on the main floor of Luckey Building.

## **Associate Academic Dean**

The associate academic dean works with the academic dean to deliver the academic program and curricula of the college and is the main point of contact in the dean's office for students with questions related to the academic program. The office is located on the main floor of Luckey Building.

## **Area Associate Deans**

The area associate deans provide leadership in advising, assessment and evaluation, budgetary and curricular matters, as well as research; enable and promote collaboration across disciplines; coordinate faculty hiring and programs within the area; represent the area to all constituencies and work with Advancement and Development to promote the area departments.

## **Academic Records**

The director of academic records answers 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 19 departments: Art, Biblical Studies, Biology, Business and Economics, Chemistry, Communication, Education, English and Writing, Environmental Recreation and Equestrian Studies, History and Political Science, Intercultural Studies, Mathematics and Computer Science, the Greatbatch School of Music, Philosophy, Physical and Health Education, Physics and Earth Science, Psychology and Sociology, Theology, and World Languages and Literatures. 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 non-teaching faculty by the administration (for example, the professional library personnel, some administrators in student life, and the administrators who report directly to the president). Other categories of faculty include: part-time, lecturers, adjunct and interim.

## **Degrees Offered**

Houghton College offers courses of study leading to the degrees of master of music (MMus), master of arts in

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music (MA), bachelor of arts (BA), bachelor of science (BS), bachelor of music (BMus), and an associate of arts degree (AA). A two-year Christian ministries course in Bible and related studies leads to an associate in applied science degree (AAS).

## Requirements

### Graduation

A student must complete at least one major. Candidates for BA and BS degrees must complete 124 semester hours. Candidates for the BMus must complete 128 semester hours. No more than 8 hours of ROTC or Theater Workshop may count toward graduation. No more than 8 hours of Horsemanship may count toward graduation unless student is in the Recreation major with the Equestrian track or the Equestrian Studies minor. Also, no more than 8 hours of applied music may count toward graduation for students who are not majoring or minoring in music. The minimum quality point average for graduation is 2.0. Grades in major, minor and concentration courses must be at the “C-” level or higher.

### Residency Requirements

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

### Second Degree

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

### Changes in Requirements

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

### Liberal Arts Requirements

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

The State of New York and Houghton College require a minimum of 93 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.

### Master of Arts in Music; Master of Music

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

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### **Bachelor of Arts**

A candidate for the Bachelor of Arts degree selects a major, and that choice must be approved by the chair of that department. The BA degree requires a minimum of 93 hours of liberal arts and a total of 124 hours.

### **Bachelor of Science**

A candidate for the Bachelor of Science degree may select a major from Bible, business administration, Christian formation, communication, computer science, inclusive childhood education, information technology management, physical education, recreation, science, or writing. The BS degree requires a minimum of 62 liberal arts hours and a total of 124 hours.

### **Bachelor of Music**

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

### **Associate of Arts**

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

A student may earn the associate in arts degree by completing a total of 62 semester hours as follows

- a) 40 hours of integrative studies (as described below)
- b) 12 hours in a liberal arts concentration (Allowable concentrations are those for which the college offers a B.A. degree or any liberal arts minor). A student must receive grades of C- or higher in all courses in the concentration. Normally courses which count for the concentration will be numbered 200 or above (except for the calculus sequence and introductory science courses).

OR an optional non-concentration alternative may be selected where the student completes Houghton College's entire Integrative Studies package.

- c) Cumulative grade point average must be 2.0 or higher.
- d) At least 30 hours, including at least 18 of the last 24, must be from Houghton College, as well as at least half of any concentration.

The Integrative Studies requirements for the AA:

Required courses - 12

4 hours of Writing

4 hours of Culture: history **or** philosophy

4 hours of Biblical Literature or, if eligible, a 200 level Bible course (excluding BIBL 251 and BIBL 261)

Additional hours - 28

Culture: (no more than one from each of these)

Art (4), Music (4), History (4) **or** Philosophy (4) (must choose area not taken for the core requirements), and Literature (4)

Faith Foundation: Introduction to Christianity (4)

Creation: (no more than one from each of these)

Lab Science (4)

Mathematics (4)

Competencies: (up to two language courses are allowed)

Health and Wellness (1-4)

Foreign Language (4, 4)

Community: (no more than 8 credits, choosing from at least two of these areas)

Anthropology (4), Communication (2 or 4), Economics (2, 2), Political Science (4), Psychology (4), Sociology (4)

### **Associate in Applied Science**

A student earns the associate in applied science degree by completing the two-year Christian ministries course of 62 semester hours, of which at least 22 are in liberal arts.

**Majors/Minors**

Each student normally selects, during the first semester of the sophomore year, one major area for specialized study. 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 Biblical Studies</i>		
Bible	BA, BS	1510
<i>Department of Biology</i>		
Biochemistry	BA, BS	0414
Biology	BA, BS	0401
General Science	BS	4902
<i>Department of Business and Economics</i>		
Business Administration	BS	0506
Information Technology Management	BS	0507
<i>Department of Chemistry</i>		
Biochemistry	BA, BS	0414
Chemistry	BA, BS	1905
General Science	BS	4902
<i>Department of Communication</i>		
Communication	BA, BS	0601
<i>Department of Education</i>		
Adolescence Educ:		
Biology	BA	0401.01
Chemistry	BA	1905.01
English	BA	1501.01
Mathematics	BA	1701.01
Physics	BA	1902.01
Social Studies	BA	2201.01
Spanish	BA	1105.01
Inclusive Childhood Education	BS	0802
TESOL	BA	1508
<i>Department of English and Writing</i>		
English	BA	1501
Writing	BA, BS	1507
<i>Department of Environmental Recreation and Equestrian Studies</i>		
Recreation	BS	0835
<i>Department of History and Political Science</i>		
History	BA	2205
International Relations	BA	2210
Political Science	BA	2207
<i>Department of Intercultural Studies</i>		
Intercultural Studies	BA	2210
TESOL	BA	1508

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*Department of Mathematics and Computer Science*

Computer Science	BS	0701
Mathematics	BA	1701
General Science	BS	4902

*Greatbatch School of Music\*\**

Music	BA, MA	1004, 1005
Composition	MusB/MusM	1004.10
Music Education	MusB	0832
Music with non-music elective studies	MusB	1004
Perf: Brass Instruments	MusB/MusM	1004
Perf: Organ	MusB/MusM	1004
Perf: Percussion Instruments	MusB/MusM	1004
Perf: Piano	MusB/MusM	1004
Perf: Stringed Instruments	MusB/MusM	1004
Perf: Voice	MusB/MusM	1004
Perf: Woodwind Instruments	MusB/MusM	1004
Collaborative Performance	MusM	1004
Conducting	MusM	1004

*\*\*See Graduate Bulletin for information regarding master's degree programs in music.*

*Department of Philosophy*

Humanities	BA	4903
Philosophy	BA	1509

*Department of Physical and Health Education*

Physical Education	BS	0835
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*Department of Physics and Earth Science*

Applied Physics	BS	1999.20
Computational Physics	BS	1999.20
Physics	BA, BS	1902
General Science	BS	4902

*Department of Psychology and Sociology*

Psychology	BA	2001
Sociology	BA	2208

*Department of Theology*

Christian Ministries	AAS	5502
Christian Formation	BS	1510
Religion	BA	1510

*Department of World Languages and Literatures*

Spanish	BA	1105
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*Interdisciplinary/Special Studies*

Management	BS	0515
Liberal Arts	AA	5649

*\*HEGIS - Higher Education General Information Survey*

**Associate Deans and Areas**

*Associate Dean for Arts and Letters: James F. Wardwell*

Department of Art

Department of Communication

Department of English and Writing



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*Associate Dean for Biblical Studies, Theology, and Philosophy:* W. Christopher Stewart

Department of Biblical Studies  
Department of Philosophy  
Department of Theology

*Associate Dean for Education and Physical Education:* Cathy E. Freytag

Department of Education  
Department of Physical and Health Education

*Associate Dean for Intercultural, World Languages and Recreation Studies:* Marcus W. Dean

Department of Environmental Recreation and Equestrian Studies  
Department of Intercultural Studies  
Department of World Languages and Literatures

*Associate Dean for the Natural Sciences and Mathematics:* Keith Horn

Department of Biology  
Department of Chemistry  
Department of Mathematics and Computer Science  
Department of Physics and Earth Science

*Associate Dean for the School of Music:* Ben R. King

*Associate Dean for Social Sciences:* Paul D. Young

Department of Business and Economics  
Department of History and Political Science  
Department of Psychology and Sociology

### **Integrative Studies (General Education)**

Academic work at Houghton is organized under four categories: integrative studies, major work, minor work, and elective work. The system of majors and minors provides for general coordination and some intensive training that is often introductory to later professional preparation. Each student must have a major. Minors are optional.

### **Majors/Minors**

In the major the student must complete a minimum of 24 semester hours of major credit (any course numbered 200 or above unless otherwise specified). Many majors require more than 24 hours. At least one-half of a student's major must be completed at Houghton. The minor consists of 12 or more hours of work acceptable for major credit unless otherwise stated. No grades below C- count toward the major or minor. Students majoring in a Bachelor of Music curriculum may, with the approval of the director of The Greatbatch School of Music, be permitted to count one D-level grade in the music theory sequence (MTH 225, 227, 325, 327) and one D-level grade in the music history sequence (MHS 231, 232, 333, 334).

### **Self-Designed Minor**

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

### **Integrative Studies Requirements for BA and BS Degrees**

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

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## POLICIES

### 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).

### Semester Schedule Load-Limit Policy

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

- a. A student admitted under **"light-load"** provisions is not permitted to take more than 14 credit hours. (Note: Highlander Adventure [2 credits] will appear on the fall transcript but does not count against load limits.)
- b. The student on **academic probation** is not permitted to take more than 15 hours. 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.
- c. To take 18 credit hours, a student must have the specific permission of his or her advisor recorded on a form in the Academic Records Office.
- d. To take 19 credit hours, a student must petition the associate academic dean through the academic petitions committee for permission to do so. This academic petition requires the approval of the advisor.
- e. Special circumstances may be addressed through academic petition. (Academic petition blanks and load-limit forms are available in the Academic Records Office or on the website at <http://campus.houghton.edu/orgs/records/TranscriptsAndForms.htm>.)

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

### Drop/Add Permission

Courses (including independent studies and tutorials) may not be added for credit after the first ten academic days. Courses from which a student withdraws during the third through the tenth weeks will be recorded with a grade of "W". Courses discontinued within the last four weeks of the semester are assigned "F". **Students are not officially withdrawn from a course until the signed change of schedule form is in the Academic Records Office.** (See Mayterm policy for additional important information.)

### Classroom Attendance

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

### Audit

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

### Double-counting

This policy addresses the situation in which a single course satisfies requirements in more than one major or minor subject. Such a course is permitted to count toward the credit-hour requirements in more than one major or minor subject if and only if (1) the student's program in each major subject includes a minimum of 24 credit-hours of coursework not double-counted and (2) the student's program in each minor subject includes a minimum of 12 credit hours of coursework not double-counted. [A course that meets requirements for the

major and the minor may be used toward **both** if such a course is beyond the 24 and beyond the 12 hours. (If it were hours 13, 14, 15, 16 and 25, 26, 27, 28 for example.)] This policy also applies to courses that are cross-listed, that is, that are identified by more than one prefix, as long as the course-level requirements for those cross-listed courses are the same. Courses that are not the same should be identified by different numbers as well as different prefixes. The restrictions on double-counting described above do not apply to courses that fulfill both integrative studies requirements and the requirements of a major or minor. Integrative studies courses may be counted toward a major or minor subject without limitation. *Neither do the restrictions on double-counting apply to concentrations associated with the Inclusive Childhood Education major.*

**Final Exam Policy**

If a student believes the scheduling of too many exams in one day poses a problem, she or he may appeal to the Associate Academic Dean. Written (email is acceptable) approval by the faculty member who is being asked to move an exam should be forwarded to the Associate Academic Dean.

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

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

**I-Incomplete.** A temporary grade limited to a course in which a student has been excused for illness or given an extension for another significant reason. An incomplete grade is to be made up within five weeks of the close of the semester, which is the last day of final exams. At that time, the professor will submit a grade based on work completed by that time. Incomplete forms must be obtained from the Academic Records Office.

**P-Satisfactory work done (equivalent to a regular grade of D or above).** Gives semester hours but no quality points.

**U-Unsatisfactory work.** Credit is not earned from the course and does not figure in the overall quality point average.

**M-No grade assigned.** May be used at mid-semester 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-Not Recorded grade.** 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 (AAD), in writing, again within 10 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 10 days, form a panel of uninvolved, tenured faculty from the instructor's department. (From a designated pool, the AAD, the instructor, and the student will each select one member of the panel.)

b. The panel, within 30 days, will review all appropriate material and determine the final grade. The panel may retain the original grade or assign a new grade (which may be higher or lower than the grade in question), and it will so inform the records office.

**Quality Point Average** (also known as grade point average)

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

An example:

Course	Hours	Grade	Value	Points
Biblical Literature	4	C	2.00	8.00
Western Civilization	2	B	3.00	6.00
Intro to Calculus	4	D+	1.33	5.32
Intro to Psychology	4	B+	3.33	13.32
Spanish Level 2	4	A-	3.67	14.68
Totals	18			47.32
QPA = 47.32 divided by 18 = 2.682				

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 course-work, 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**

Being in good standing with the college is a prerequisite for participating in college activities, whether for curricular or co-curricular purposes, including but not limited to:

- intercollegiate athletics;\*
- leadership roles in the Student Government Association;
- leadership in clubs and other student organizations;
- any study for academic credit that is not on Houghton's main campus (e.g., off-campus programs);
- opera and musical theater production performances or production staff;
- dramatic productions performances or production staff, whether curricular or student-led;
- touring with music ensembles.

A student in good standing will have completed 24 credit hours over the previous two semesters (including Mayterm and summer work following one of the two previous semesters) with a cumulative quality point average of 2.0 and must not be on disciplinary probation nor have unaddressed chapel attendance deficiencies.

**Notes:** \*There are eligibility requirements for intercollegiate athletes governed by an external intercollegiate association that are not addressed here. In addition, this policy does not apply to intramural sports participation (see the *Student Handbook* for further detailed information on both intercollegiate and intramural participation). Other notes: This policy applies to full-time, and not part-time, students. Student membership, as compared to leadership, in other student clubs is exempted from this policy except as outlined in the bullets

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above. Some campus leadership positions require a higher cumulative quality point average than 2.0, and a student's eligibility should be reviewed prior to elections for these leadership positions or other participation. Music majors participating in curricular music major ensemble performances on the College's main campus are exempted from this policy. Eligibility lists for continued participation in college activities are reviewed by the Academic Records Office and by appropriate college officials at the end of each semester. Exceptions to this policy may be considered by petition to the academic or co-curricular administrator in the relevant area.

## Academic Honesty

**Honesty** is the foundation on which all intellectual endeavors rest. To use the ideas of others without acknowledging the authors of those ideas belies the nature and purpose of academic life. At Houghton, where we strive to live out Christian calling and commitment, personal integrity, including academic honesty, should be the hallmark of our all of our work and relationships.

**Students** are expected to exhibit extreme care relative to personal honesty in all academic work, including in-class and out-of-class learning experiences, such as exams, quizzes, journals, papers, research projects, etc. Dishonest work includes but is not limited to the following:

- A. obtaining aid or information without giving due recognition to the sources from which the aid or information was obtained. Such dishonesty encompasses 1) asking to copy or copying other students' work to claim as one's own on an exam or assignment of any kind and 2) all forms of plagiarism. Plagiarism includes using ideas, words, or phrases from any source without citing that source and downloading or purchasing papers or parts of papers from others or the World Wide Web and claiming such work as one's own.
- B. giving aid or information when it is clearly inappropriate to do so, such as providing answers for an exam or writing a portion of a paper or an entire paper for someone, including the selling of one's work.

**Faculty members** are required to report all offenses to the associate academic dean who will ensure that an appropriate record is kept. Students found guilty of intentional dishonesty will automatically receive a failing grade for that work. Instructors may require that such work be redone to their satisfaction as a requirement for passing the course. Nothing higher than the failing grade, however, can figure into the calculation of the final grade. Student questions about appropriate collaboration on specific assignments should be addressed to the faculty member.

At the academic dean's discretion, repeated offenses may result in failure of the course or dismissal from the college. If a student is already on disciplinary probation, any offense may result in suspension or dismissal by the dean of student life. Unauthorized use of college computing equipment, facilities, or programs may also be considered grounds for disciplinary probation, suspension, or dismissal from the college.

## Academic Advising

Effective student advising contributes to a productive and successful college experience. Advising includes a variety of tasks: course selection, choice of major and minor, monitoring student progress, referring students to support services, and helping students connect their studies to potential career choices. In all of these ways advising complements teaching. But advising can be more, becoming at its best a dynamic relationship between student and professor that encourages students to cultivate thinking and learning skills associated with the liberal arts and to explore their abilities and interests in light of Christian faith and God's calling in their lives.

All entering students are assigned a faculty advisor. When students have a strong interest in an academic major, every effort is made to provide an advisor whose area of expertise matches the students' interest. Students are encouraged to consult with their academic advisor at least once each semester and at any time they have questions that the advisor can address or for which he or she can provide appropriate resources. When a student selects a new major, the department chair will assign an appropriate advisor. To select courses, students must obtain their academic advisor's approval. Although advisors provide guidance, it is the student's responsibility to understand academic policies and complete all requirements for a degree. Contact the Academic Records Office or the associate academic dean with any questions.

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## 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 advisor who is responsible for academic advising during the first year. A student receiving a semester quality point average below 2.0 but who is not placed on academic probation is placed on academic guidance and is encouraged to work closely with the 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 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 are less than 15, GPA must be at least 1.0.

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

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

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

Two semesters in a row with a semester GPA below 2.0 also results in probationary status.

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

## Academic Dismissal

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

Any student dropped from the college for academic reasons may petition the Admission Committee for re-admission. 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 Admission Committee is placed on academic probation and must maintain a quality point average of 2.00 or higher for each semester thereafter in order to remain in college.

## Scholastic Honors:

**President's List** - Recognizes students who complete a minimum of 12 hours with a 4.0 quality point average for the semester - no incompletes allowed.

**Dean's Honor List** - Recognizes students who complete a minimum of 12 hours with a quality point average for the semester of 3.75 - 3.999 - no incompletes allowed.

**Dean's List** - Recognizes students who complete a minimum of 12 hours with a quality point average for the semester of 3.5 - 3.749 - no incompletes allowed.

## Graduation Honors

The faculty will select for graduation honors students of outstanding scholarship. Beginning with commencement 2010, for the recognition of *cum laude*, the student must have a cumulative quality point average of at least 3.5; for *magna cum laude*, at least 3.7; and for *summa cum laude*, at least 3.9. **Students transferring from other colleges must complete 62 hours in Houghton College in order to be eligible for graduation honors.** Graduation honors as published in the May commencement program are based on the cumulative record at the end of the spring (normally eighth) semester, including the valedictorian and salutatorian. In order to be eligible to be valedictorian or salutatorian, the student must be full-time in spring, a May grad, and have earned a minimum of 90 Houghton College credits.

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## Honors Project

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

## Independent Study

Independent study is a directed course in reading or research in which the student pursues an approved 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 Academic Records Office on or before the **seventh calendar day** after the first day of classes. Mayterm/summer independent study applications should reach the Academic Records Office by April 1.

A student may take independent study for variable credit (one to four hours maximum during 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 a regular course**. 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. Because independent study presumes some prior acquaintance by the students with the field to be studied, an independent study may not be used to satisfy integrative studies requirements.

## 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. **Students need to be enrolled in their internships prior to beginning the experience.** They should enroll in the term (fall, spring, Mayterm or summer) when they are doing the field placement. They cannot enroll for the internship in a previous or subsequent semester to take advantage of a different year's tuition. Summer internships are specifically included in the Mayterm policy and students and advisors should calculate the hours carefully when contemplating tuition-free internships.

## Tutorial Study

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

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

## Mayterm

The three-week Mayterm begins on the Tuesday immediately following Commencement and usually concludes before June 1, except for four-hour courses. Participation in Mayterm is voluntary. The academic purpose is to permit students to take additional hours of credit before commencing summer employment. In general, catalog courses are offered. Students and professors also are encouraged to work together on campus

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doing independent studies. Off-campus practicums, if desired, are arranged by the department chair. Travel in the U.S.A. and abroad is a feature of this period. See Financial Information section for tuition information.

### **Senior-in-Absentia**

Students of outstanding ability who are accepted by an accredited professional school after the completion of three years of undergraduate work may qualify for the appropriate degree by transferring back to Houghton credit for 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 an application for withdrawal from the Academic Records Office. After securing the appropriate signatures, the student must have the record cleared by the Student Financial Services Office. The form must be properly completed and filed with the Academic Records Office before the student leaves campus. Withdrawal from college without accomplishing the above procedure will result in forfeiture of the right to honorable dismissal. No refunds (if applicable) will be made by the Student Financial Services Office until the Academic Records Office certifies that the withdrawal procedure has been properly completed.

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

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

### **Student Academic Services**

Houghton College offers learning support for students through the Student Academic Services Office. Any student may come to SAS for analysis of study strengths and weaknesses, or advice on study and examination strategies. Students may request course-specific peer tutoring. Learning support for students with disabilities is also offered.

### **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 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 Susan M. Hice, Director, Student Academic Services (585.567.9239).



Students needing facility adjustments must contact the Director of Facilities (585.567.9480). The complete “Policy for Students with Learning-Related Disabilities” may be obtained from Student Academic Services or from the Admission Office.

**Academic Petitions**

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

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

Further information is available in the Academic Records Office.

**Courses of Instruction**

**Course Numbering System**

- 100 level courses...**
  - typically taken the freshman year
  - do not typically give major or minor credit
- 200-399 level courses...**
  - typically taken the sophomore or junior year
  - major credit requires courses to be at this level or higher
  - foundational courses for majors and minors
  - courses that build upon one or more foundational courses in the same discipline
  - or represent advanced integrative studies
- 400 level courses...**
  - typically taken late in the curriculum
  - build upon two or more lower numbered courses in the same discipline
  - class size is generally smaller
  - pedagogy is seminar style or discussion-oriented or collaborative

**Course Description Codes**

Code	Explanation
4	Number of credit hours for the course (variable: may be 1, 2, 3, 4, or more)
4/4	Credit hours for a two-semester sequence
1, 2, 3, or 4	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
F11	Course offered in fall, odd-numbered years
F10	Course offered in fall, even-numbered years
S12	Course offered in spring, even-numbered years
S11	Course offered in spring, odd-numbered years
F/S	Course offered in two-semester sequence
F/S 10-11	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.

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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 course offerings for each semester or special session, as published by the Academic Records Office.

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

#### Department of Art

ART	art
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#### Department of Biblical Studies

BIBL	Bible
GREK	Greek
HEBR	Hebrew

#### Department of Biology

BIOL	biology
BIOCHM	biochemistry

#### Department of Business and Economics

ACCT	accounting
BADM	business administration
ECON	economics

#### Department of Chemistry

BIOCHM	biochemistry
CHEM	chemistry

#### Department of Communication

COMM	communication
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#### Department of Education

EDUC	education
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#### Department of English and Writing

ENGL	English and literature
WRIT	writing

#### Department of Environmental Recreation and Equestrian Studies

HRSM	horsemanship
REC	recreation

#### Department of History and Political Science

HIST	history
INTR	international relations
POLS	political science

#### Department of Intercultural Studies

ANTH	anthropology
INCL	intercultural studies
LING	linguistics
MISS	missions
URMN	urban ministries

#### Department of Mathematics and Computer Science

CSCI	computer science
MATH	mathematics

#### Greatbatch School of Music\*

MCHU	church music
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MCLV	class voice
MED	music education
MHS	music history
MKBD	practical keyboard
MLT	music literature
MTH	theory and composition
MUS	ensembles; instrumental and piano classes; pedagogy applied study: private lessons (Each instrument has its own code – see separate listing).

*\*See Graduate Bulletin for information regarding master's degree programs in music.*

Department of Philosophy

HUM	humanities
PHIL	philosophy

Department of Physical and Health Education

PHED	physical education
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Department of Physics and Earth Science

ESCI	earth science
PHYS	physics

Department of Psychology and Sociology

ANTH	anthropology
PSY	psychology
SOC	sociology

Department of Theology

CHMN	Christian ministries
CRFM	Christian Formation
MIN	ministry
REL	religion
THEL	theology

Department of World Languages and Literatures

FREN	French
GERM	German
SPAN	Spanish

Interdisciplinary/Special Studies

CLLS	college life and leadership
INTS	integrative studies

Adult Learning Opportunities

ADC	adult degree completion
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**Academic program note:**

A student's academic program normally contains four elements:

- integrative studies
- pre/co-requisites or additional requirements
- academic major
- electives
- concentrations may be required for some majors*

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

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# Integrative Studies

**Faculty:** Mark D. Hijleh (Director), Patrick L. Buckwalter, Marlene G. Collins-Blair, D. Brandon Hoffman, Susan Bruxvoort Lipscomb, Trini G. Rangel, John M. Rhett, Aaron S. Routhe, David Stevick (resource person)

## General Information:

The Integrative Studies (IS) Committee was created to express Houghton's commitment to the liberal arts and in particular to integrative studies or general education. It comprises faculty elected and appointed to represent a wide range of academic disciplines in IS matters. The goals of the committee are:

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

**Major/Minor:** None

## Houghton College Integrative Studies Requirements - BA/BS

**The following requirements are typically taken in the first year: Bible, history, and writing.** Students are also strongly encouraged to take the following requirements in the first year: foreign language and the theory component of the health & wellness competency.

## Competencies

### A. Health & Wellness

*Students must complete four Points; at least one Point in each of three years.*

Point #1: Fitness for Life (Theory Component) – to be met by taking one of the following courses (1-4 Credits) for a grade:

- a) PHED 101 Fitness for Life
- b) PHED 237 Holistic Health
- c) CHEM 187 Intro to Nutrition (students may, but need not, take the lab, CHEM 188)

*It is strongly recommended that, whenever possible, students satisfy Point #1 before taking courses to accumulate their other points.*

Point #2: Fitness Lab Component – To be met by taking one of the following courses either for a grade or pass/fail (for credit or not for credit) unless otherwise noted (L=letter grade only) – a course chosen to meet this component cannot also be used to meet another component:

- a) PHED 124 Cross-Country Skiing
- b) PHED 135 Swimming for non-majors
- c) PHED 138 Walking/Jogging
- d) PHED 140 Weight Training
- e) PHED 220 Adventure Sports (L)
- f) PHED 330 Physiology of Exercise (L)
- g) REC 104 Backpacking (L)
- h) REC 211 Eco-tour in Honduras (L)
- i) REC 212 Eco-tour in Africa (L)

Point #3: Indoor Activity – to be met with one of the following activities; courses may be taken either for a grade or pass/fail (for credit or not for credit):

- a) Intercollegiate Basketball
- b) Intercollegiate Indoor Track/Field
- c) Intercollegiate Volleyball
- d) MSL 301, 302, 401, **and** 402 with C- or above (L)
- e) PHED 121 Badminton
- f) PHED 122 Beginning Ballet
- g) PHED 129 Table Tennis
- h) PHED 130 Racquetball
- i) PHED 131 Rock Climbing

- j) PHED 135 Swimming for non-majors
- k) PHED 137 Volleyball
- l) PHED 138 Walking/Jogging
- m) PHED 140 Weight Training
- n) PHED 145 Continuing Ballet
- o) PHED 146 Beginning Jazz Dance
- p) PHED 148 Continuing Jazz Dance
- q) PHED 228 Lifeguarding (L)
- r) PHED 229 Educational Gymnastics and Movement Foundations (L)
- s) PHED 230 Aquatics (L)
- t) REC 109 Highlander (also satisfies Point 4) (L)

**Point #4:** Outdoor Activity – to be met with one of the following activities; courses may be taken either for a grade or pass/fail (for credit or not for credit):

- a) Intercollegiate Cross-Country
- b) Intercollegiate Field Hockey
- c) Intercollegiate Soccer
- d) Intercollegiate Track/Field
- e) HRSM 113 Horsemanship I
- f) HRSM 114 Horsemanship II
- g) HRSM 276 Dressage
- h) HRSM 323 Eventing
- i) HRSM 325 Horsemanship: Jumping I
- j) MSL 101, 102, 201, **and** 202 with C- or above (L)
- k) PHED 123 Canoeing
- l) PHED 124 Cross Country Skiing
- m) PHED 125 Downhill Skiing/Snowboarding
- n) PHED 126 Golf
- o) PHED 133 Softball
- p) PHED 136 Tennis
- q) PHED 139 Water Skiing
- r) PHED 141 Walking for Wellness
- s) PHED 147 Soccer
- t) PHED 220 Adventure Sports (L)
- u) REC 103 Initiatives (L)
- v) REC 104 Backpacking (L)
- w) REC 109 Highlander (Also satisfies Point 3) (L)
- x) REC 211 Eco-tour in Honduras (L)
- y) REC 212 Eco-tour in Africa (L)
- z) REC 227 Outdoor Leadership Training (L)

**B. Writing** (must satisfy by end of first year)

- 1) passes WRIT 101 Writing in the Liberal Arts;
- 2) passes any of the First Year Honors Program tracks;
- 3) passes ENGL 207 Introduction to Literary Studies;
- 4) earns a score of at least 4 on the AP English Language exam;
- 5) earns a score of at least 600 on the Writing portion of the SAT; or
- 6) earns a score of at least 26 on the Writing portion of the ACT.

**C. Quantitative Literacy**

*Students who do not satisfy the Quantitative Literacy competency by any of the methods listed below must take one of the MATH courses which meet the MATH integrative studies requirement of the Understanding the Natural World category.*

A student will satisfy the Quantitative Literacy competency if he or she:

- 1) has a Math SAT score of at least 600;
- 2) has a Math ACT score of at least 28;
- 3) has completed at least three years of standard math in grades 9-12 earning a grade of at least 85% or a B in the third year, (*Students who have taken a fourth year of math during grades 9-12 may request that their fourth-year grade be used to determine satisfaction of the Competency*);
- 4) has earned a score of at least a 2 on AP Stats, AP Calc AB, or AP Calc BC;
- 5) has passed a college math course elsewhere with a grade of C- or better;
- 6) passes the Houghton College course BADM/ECON/PSY/SOC 309 Statistics; or
- 7) passes a Houghton College Quantitative Literacy Competency Exam after matriculation. *Students not satisfying the Quantitative Literacy Competency by any of these methods must take a Math course for their 2<sup>nd</sup> Creation requirement.*

**D. Foreign Language** (equivalent to first year of college instruction)

A student can satisfy the Foreign Language Competency with:

- 1) Successful completion of one of the second-level IS courses. or one of the approved Mayterm courses, at Houghton College;
- FREN 102 French Level 2

GERM 102 German Level 2  
 LATN 102 Beginning Latin II  
 SPAN 102 Spanish Level 2  
 SPAN 112 Spanish for Human and Social Services II  
 SPAN 122 Spanish for Educators II  
 SPAN 132 Spanish for Business and Finance II  
 SPAN 142 Spanish for Health Professionals II  
 SPAN 207 Aspects of Costa Rica (Mayterm)  
 SPAN 211 Ecotourism in Honduras (Mayterm)  
 GREK 102 Beginning Greek Level 2  
 HEBR 102 Beginning Hebrew Level 2

- 2) A score of 3 or higher on the AP language or literature exam in a language other than the student's native tongue;
- 3) Any semester-abroad experience that includes at least 4 credit hours in a foreign language;
- 4) An overseas experience in which there is no formal language component, subject to the approval of the Department of World Languages and Literatures and Integrative Studies. Such experiences may include a summer/semester/year abroad engaged in activities such as internships that require extensive use of a language other than the student's native tongue;
- 5) Testing out of the requirement via a foreign language placement exam such as WEBCAPE that is administered by the Department of World Languages and Literatures;
- 6) Transferring to Houghton College approved foreign language credits from other college coursework (or its equivalent through a test such as the College Level Examination Program [CLEP]);
- 7) Transferring to Houghton College two semesters (or its equivalent) of American Sign Language;
- 8) Three years of a single foreign language in high school with a cumulative B+ average; or
- 9) Students whose native tongue is other than English may demonstrate English proficiency sufficient to satisfy the Foreign Language Competency by successfully meeting all other Houghton College graduation requirements.

### Faith Foundation

**Coursework in Bible and Christian Theology** – *Students required to take BIBL 101 must complete Bible by end of first year. Students taking Advanced Bible may take it at any time. THEL 209 normally taken second year and after BIBL 101; may be taken before Advanced Bible.*

#### A. Bible

BIBL 101 Biblical Literature **OR**

Students with at least two years' study of Bible in high school and at least a B average in those courses may take a 200-level BIBL course for their integrative studies requirement. (Exclusions: BIBL 251 Bible History and Geography and BIBL 261 Holy Land Tour.)

#### B. Theology

THEL 209 Introduction to Christianity

INTS 153 Honors: East Meets West

### Culture: Understanding Human Thought and Creative Expression Across Time

*Students are encouraged to complete at least one History or Philosophy course by the end of the first year.*

#### A. Art or Music – one of the following:

ART 131 Introduction to the Visual Arts (Lecture)  
 ART 132 Art and Architecture in Context in Europe (Lecture)  
 ART 211 Drawing I (Studio)  
 ART 221 Painting I (Studio)  
 ART 231 Ancient Art History (Lecture)  
 ART 232 Renaissance and Baroque Art History (Lecture)  
 ART 234 Art and Architecture in Europe (Lecture)  
 ART 235 African Art History (Lecture)  
 ART 236 Asian Art History (Lecture)  
 ART 237 Modern and Contemporary Western Art History (Lecture)  
 ART 245 Graphic Design I (Studio)  
 ART 251 Sculpture I (Studio)  
 ART 261 Printmaking I (Studio)  
 ART 271 Ceramics I (Studio)  
 ART 281 Foundations of Photography (Studio)  
 ART 284 Introduction to Digital Imaging (Studio)  
 ART 295 ST: Introduction to Watercolor Painting (Studio)  
 ART 295 ST: Imaging the Landscape (Studio)  
 ART 295 ST Portraying Place (Studio)  
 ART 295 ST: Artist's Book and Papermaking (Studio)  
 ART 314 The Art and History of Film (Lecture)  
 INTS 152 Honors Study in London

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4 semesters of the same category of major instrumental or choral ensemble, with or without credit. Includes Men's and Women's Choir, College Choir, Philharmonia, and Symphonic Winds; other ensembles possible if approved by ensemble director. Admission to all college ensembles is by audition or hearing.

MLT 211 Music and Listening: An Introduction

MTH 225 Music Fundamentals Review **and** MTH 226 Musicianship Development: Introduction to Tonality (students take both for IS)

MHS 222 Introduction to Film Music

MHS 231 Music History I **and** MHS 232 Music History II (must take both for IS): by permission of instructor

MHS 254 Music of World Cultures

MHS 333 Music History III: by permission of instructor

MHS 334 Music History IV: by permission of instructor

MCHU 451 Music and Worship

MCHU 311 Historical Congregational Song **and** MCHU 312 Recent Congregational Song (must take both for IS)

**B. History**

HIST 101 Western Civilization I: Ancient Civilization to 1650 **and** HIST 102 Western Civilization II: 1650 to the Present (students take both)

HIST 103 and 104 Western Civilization I and II: Science Honors

HIST 105 Western Civilization: Ancient to the Present

INTS 152 Honors Study in London

INTS 153 Honors: East Meets West

HIST 220 American History Survey

HIST 223 Latin American History to 1800

HIST 224 Latin American History since 1800

HIST 230 Medieval Europe

HIST 249 African History

HIST 325 Europe in the Nineteenth Century

HIST 326 Europe: 1890-1945

HIST 332 History of Rome

HIST 359 Colonial America

HIST 360 Early National Period

HIST 361 Civil War and Industrial America

HIST 362 Recent America

HIST 368 The Reformation

**C. Literature** – One of the following:

ENGL 202 Literary Voices

ENGL 213 English Literature I

ENGL 214 English Literature II

ENGL 217 American Literature I

ENGL 218 American Literature II

INTS 203 Literature and Wisdom

INTS 152 Honors Study in London

Completion of either a major or minor in English, or a major in Writing, satisfies the Culture: Literature requirement.

**D. Philosophy** – One of the following:

INTS 203 Literature and Wisdom

INTS 152 Honors Study in London

PHIL 202 Metaphysics, Morality and Mind

PHIL 203 Theism, Naturalism and the Sciences

PHIL 243 Ancient Philosophy

PHIL 244 Medieval Philosophy

PHIL 245 Early Modern Philosophy

PHIL 246 Late Modern and Contemporary Philosophy

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**Creation: Understanding the Natural World**

*Students must choose at least one course from A and one from B. Courses must have two different prefixes.*

**A. Lab Science**

BIOL 103 Fundamentals of Biology

BIOL 105 Conservation Biology

BIOL 151 General Biology I

BIOL 152 General Biology II

BIOL 207 Wildlife Behavior in East Africa

BIOL 215 Local Flora and Vegetation

BIOL 217 Human Anatomy and Physiology I

BIOL 218 Human Anatomy and Physiology II (*with permission*)

CHEM 151 General Chemistry I (lab)

CHEM 187/188 Introduction to Nutrition and lab

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ESCI 101 Physical Geology (lab)  
PHYS 102 General Astronomy (lab)  
ESCI 212 Environmental Earth Science (lab)  
PHYS 130 How Things Work (lab)  
PHYS 151 General Physics I (lab)

**B. Math or Science** (*If Quantitative Literacy in Competencies is not met, student must take a MATH course.*)

MATH 115 Introduction to Calculus  
MATH 180 Calculus and Its Origins  
MATH 181 Calculus I  
MATH 182 Calculus II  
MATH 183 Science Honors  
BIOL 103 Fundamentals of Biology  
BIOL 105 Conservation Biology  
BIOL 151 General Biology I  
BIOL 152 General Biology II  
BIOL 207 Wildlife Behavior in East Africa  
BIOL 215 Local Flora and Vegetation  
BIOL 217 Human Anatomy and Physiology I  
BIOL 218 Human Anatomy and Physiology II (*with permission*)  
CHEM 121 Impact: Science on Society  
CHEM 151 General Chemistry I  
CHEM 187 Introduction to Nutrition  
CSCI 211 Programming I  
ESCI 101 Physical Geology \*  
ESCI 212 Environmental Earth Science\*  
PHYS 102 General Astronomy \*  
PHYS 130 How Things Work  
PHYS 140 Physics of Music (no lab)  
PHYS 151 General Physics I

*\*These courses may be taken for 4 hours including a lab component; or, for students who have taken a different lab science and have satisfied their QL competency without a Houghton math course, for 3 hours without a lab.*

**Community: Understanding Human Society**

*Students must choose courses from two of the following categories: ANTH, COMM, ECON, POLS, PSY, SOC.*

Economics Combination: ECON 201 Introduction to Economics (prerequisite) **and** one of the following

- 1) ECON 210 Principles of Microeconomics
- 2) ECON 211 Principles of Macroeconomics
- 3) ECON 212 International Economics
- 4) ECON 213 American Economic History I: Colonial Era-1865
- 5) ECON 214 American Economic History II: 1865-Present
- 6) ECON 237 Comparative Economic Systems

ANTH 243 Cultural Anthropology  
BADM 301 Business Communication (COMM)  
COMM 101 Presentational Speaking  
COMM 205 Introduction to Communication Theory  
COMM 214 Introduction to Mass Media  
COMM 215 Interpersonal Communication  
COMM 216 Organizational Communication  
COMM 244 Oral Performance of Literature  
COMM 319 American Public Address  
INTS 153 Honors: East Meets West (POLS)  
INTS 159 Science Honors: Communication  
POLS 201 Introduction to Politics  
POLS 202 Immigration and Citizenship  
POLS 203 Aristotle  
POLS 204 Introduction to Democracy and Governance  
POLS 225 Introduction to Environmental Governance  
PSY 111 Introduction to Psychology  
PSY 218 Social Psychology  
PSY 230 Lifespan Development of the Family  
SOC 101 Principles of Sociology  
SOC 222 Social Problems  
SOC 225 Foundations of Environmental Sociology  
SOC 226 Culture, Faith, and Creation  
SOC 237 Introduction to Marriage and Family Studies



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## Houghton College Integrative Studies Requirements - BMus

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

### COURSE DESCRIPTIONS

**INTS 152 Honors Study in London** (16, S)\*  
(See course description in Honors Programs.) This curriculum replaces 16 hours of the integrative studies requirements: Competency: Writing; Culture: Art or Music; Culture: History; Culture: Literature; Culture: Philosophy.

**INTS 153 Honors: East Meets West** (12, S; 3,M)\*  
(See course description in Honors Programs.) This curriculum replaces 15 hours of the integrative studies requirements: Competency: Writing; Faith Foundation: Theology; Culture: History; Culture: Literature; Community: Political Science.

**INTS 154, 155 Science Honors I, II** (3.5, F; 3.5, S)  
Insights drawn from the disciplines of biology, chemistry, physics, writing, and communication are applied to understanding, communicating and solving a scientific question of societal importance. Classroom activities, which include lectures, laboratory experiments, writing, and speaking, are motivated by the students' need for the specific information and skills required to reach a solution. Reserved for first-year Science Honors students. INTS 154 taken concurrently with INTS 156; INTS 155 taken concurrently with INTS 157 and INTS 159. Prerequisite: INTS 154 for INTS 155. Competency: Creation: Lab Science or 2<sup>nd</sup> Science.

**INTS 156, 157 Science Honors: Writing** (1.5, 1.5, F/S)  
Writing Component of INTS 154/155. **Reserved for first-year Science Honors students.** INTS 156 taken concurrently with INTS 154; INTS 157 taken concurrently with INTS 155 and INTS 159. Prerequisite: INTS 156 for INTS 157. Competency: Writing.

**INTS 159 Science Honors: Communication** (2, S)  
Communication component of INTS 155. **Reserved for first-year Science Honors students.** INTS 159 taken concurrently with INTS 155 and INTS 157. Community: Communication.

**INTS 203 Literature and Wisdom** (6, F or S)  
Critical analysis of the contours of a world and life view combined with an introduction to the Western literary heritage and a detailed critical analysis of perennial and foundational issues in epistemology (the nature of truth and knowledge), metaphysics (the nature of reality: persons, the world and God), and ethics. Includes works of poetry, drama and fiction as well as philosophical texts from the classical to the postmodern era. Culture: Literature; Culture: Philosophy.

**INTS 235 Interpreting the Environment: Trail Development** (2, 3, or 4, F)  
Principles, processes, and techniques used to interpret the environment and develop interpretive materials, centers, and trails. Through service-learning, students will develop interpretive, recreational, meditative, exercise, or other trails to complement their major program or integrative studies. One hour lecture/3, 4.5, or 6 hours applied (depending on credit hours chosen-3 applied hours for 2 credits, 4.5 for 3 credits, and 6 for 4 credits). Applied hours include research and preparation of interpretive presentations as well as trail development, as appropriate.

\*All students in the First Year Honors Program are expected to maintain at least a 2.5 GPA in order to continue in the program, and failure to do so will trigger review by the academic and student life deans and the director of the program. Participation in the First Year Honors Program is by academic invitation.



# Academic Programs

**Accounting** (minor and electives to prepare for the CPA and CMA exams within a Business major)

**Department of Business and Economics:** Kenneth J. Bates, chair. Paul D. Young, Associate Dean

**Faculty:** Kenneth J. Bates, Robert A. Black, Katherine A. Buvoltz, Richard A. Halberg, Daniel C. Minchen, Lois A. Ross

**Web site:** [www.businessathoughton.com](http://www.businessathoughton.com)

**E-mail:** [business@houghton.edu](mailto:business@houghton.edu)

**Phone:** 585.567.9440

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

The accounting program provides three opportunities for students to prepare themselves for further work: the accounting minor, courses outlined to prepare for the CPA exam, and courses outlined to prepare for the CMA (certified management accountant) exam (for students more interested in management accounting).

## Minor (18 hours)

Required courses:

ACCT 211	Financial Accounting.....	3
ACCT 212	Managerial Accounting.....	3
ACCT 311, 312	Intermediate Accounting I, II.....	3, 3
	Accounting electives.....	6

**CPA exam preparation:** Through elective choices within the Business Administration major (see Note below under course recommendations) a student can prepare to sit for the CPA exam in New York State. Students interested in eventual CPA certification must combine undergraduate and graduate coursework. Also 62 of the 124 undergraduate college credits must be in liberal arts courses. The coursework should be planned in consultation with your advisor, the requirements of your state, and your choice of graduate program.

Licensure as a Certified Public Accountant in New York State requires the equivalent of an additional year of undergraduate or graduate study (totaling 150 credits).

**Recommended program:** *Five Years, Two Degrees.* Houghton has established an agreement with Rochester Institute of Technology (RIT) whereby qualified students who have earned a bachelor of science degree can accelerate their MBA degree program at RIT. RIT will waive certain MBA foundation courses, allowing Houghton graduates who major in business administration to complete an MBA in one year. A grade of "B"

or better in the designated undergraduate courses is needed to have graduate level coursework waived. The courses must also be no older than five years upon matriculation into the MBA degree program.

More information about New York's requirements can be found on their *Office of the Professions* page (<http://www.op.nysed.gov/prof/cpa/>).

**Major: BS in Business Administration**  
(46 hours plus 6 in pre-co-requisites) – see course in Business Administration section

**Minor: Accounting** (12 required hours) – see above. Use the following additional course recommendations to complete the elective hours as needed. The rest of the hours below are part of the CPA exam preparation.

ACCT 314	Cost Accounting.....	3
ACCT 316	Federal Income Tax .....	4
ACCT 323	Tax Practicum .....	1
BADM 417	Management Information Systems.....	4
ACCT 421	Internship in Accounting .....	2-6

**Note:** *Auditing* and *Advanced Accounting* are also necessary prior to sitting for the CPA Exam. These courses are not currently offered by Houghton and should be taken either at another institution or as part of one's graduate program.

**CMA exam preparation:**  
The Certified Management Accountant (CMA®) – is preferred by some students who wish to focus on the accounting and financial management skills that drive business performance. The CMA exam is designed specifically to validate mastery of the advanced skills required to manage finance functions within an organization, enabling you to deliver value in today's complex business environment. It demonstrates competencies in accounting, finance, information management, and strategic planning skills necessary to drive business performance in the changing global economy. Further information on this certification is available a <http://imanet.org/>.

**Recommended program:** Students planning to pursue management accounting, major in business administration, minor in accounting, and take as many of the additional courses listed below as possible. Upon graduation students may sit for the CMA exam. Actual certification, however, is granted after obtaining two years of experience in the field.

Major: BS in Business Administration (46 hours plus 6 in pre-co-requisites)—see courses in Business Administration section

Minor: Accounting (12 required hours)—see above. Use the following additional course recommendations to complete the elective hours as needed. The rest of the hours below are part of the CMA exam preparation.

Additional course recommendations:

ACCT 314	Cost Accounting.....	3
ACCT 316	Federal Income Tax .....	4
ACCT 323	Tax Practicum .....	1
BADM 330	Operations Management.....	4
ACCT 421	Internship in Accounting .....	2-6

**Spreadsheet Competency Requirements**  
All students majoring in any program of the Department of Business & Economics must master a set of spreadsheet competences. (See details in the Business Administration section.)

COURSE DESCRIPTIONS

**ACCT 211 Financial Accounting** (3, F)  
Basic theory and practices of financial accounting. Emphasis on the proper recording of business transactions

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and understanding the effect transactions have on the financial statements of proprietorships, partnerships, and corporations. Includes analysis of key financial statement data. Prerequisite: Spreadsheet Competency.

**ACCT 212 Managerial Accounting** (3, S)

Basic theories and practices of providing accounting information for use by decision makers within the organization. Prerequisite: Spreadsheet Competency and ACCT 211.

**ACCT 311 Intermediate Accounting I** (3, F)

Intensive study of financial accounting issues including measurement, valuation, and reporting of balance sheet items. Prerequisite: ACCT 211, 212.

**ACCT 312 Intermediate Accounting II** (3, S)

Extension of ACCT 311, with emphasis on accounting for contingencies, bonds, pensions, leases and acquisitions. Prerequisite: ACCT 311.

**ACCT 314 Cost Accounting** (3, F11, F13)

Evaluation and analysis of an organization's internal accounting information needs with special emphasis on the manufacturing environment. Topics covered include job order, process, standard, and activity-based cost accounting systems, allocations, budgeting, profit-volume analysis, and behavioral considerations. Prerequisite: ACCT 212.

**ACCT 315 Auditing** (4, OD)

Comprehensive introduction to the practices and procedure used by internal auditors and CPAs in their attestation role relative to external financial reporting and the evaluation of internal controls. Emphasis is placed on the legal and ethical requirements of the auditor, including Sarbanes-Oxley. Prerequisite: ACCT 212 or permission.

**ACCT 316 Federal Income Tax** (4, F10, F12)

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

**BADM 317 Management Information Systems** (4, S)

Study of the design, maintenance, and monitoring of accounting and other information systems. Includes audit and internal control concepts. Prerequisite: spreadsheet competency, ACCT 211, 212.

**ACCT 323 Tax Practicum (P/U)** (1, S)

Supervised preparation of tax returns through the VITA (Voluntary Income Tax Assistance) Program using resources and guidance provided by the Internal Revenue Service (IRS). Prerequisite: ACCT 316 or permission of instructor.

**BADM 330 Operations Management** (4, S12, S14)

Management of processes or systems that create goods or provide services. Includes the basics of forecasting, capacity planning, scheduling, inventory management, total quality management, and supply chain management. Prerequisites: ACCT 212, Quantitative Literacy Competency: Math, Spreadsheet Competency.

**ACCT 418 Advanced Accounting** (3, OD)

Addresses complex issues in accounting including business combinations, consolidated statements, partnerships, government & not-for-profit organizations, foreign operations, and other current topics in the field. Prerequisite: ACCT 316.

**ACCT 421 Internship in Accounting (P/F)** (2-6, F, S, or summer)

Supervised experience in corporate or public accounting combining the theoretical background of coursework with practical activities in a professional setting.

**ACCT 295, 395, 495 Special Topics** (1-4, OD)

Group study of special topics.

Art (major and minor)

Department of Art: Jillian L. Sokso, chair. James F. Wardwell, Associate Dean

Faculty: Gary D. Baxter, Theodore J. Murphy, John M. Rhett, Jillian L. Sokso, Ryan Thompson

Web site: [www.houghton.edu/academics/programs/art](http://www.houghton.edu/academics/programs/art)

Phone: 585.567.9401

General Information

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

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

Studio Art Major: BA (48 semester hours)

The studio art major requires 48 hours in art, including a concentration in one studio area, distributed as follows:

Required courses:	
ART 131	Intro to Visual Arts..... 2
ART 211	Drawing I..... 2
ART 241	Two-dimensional Design ..... 2
ART 242	Three-dimensional Design ..... 2
	Total..... 8
Three of the following six:	
ART 231	Ancient Art History..... 4
ART 232	Renaissance and Baroque Western Art History ..... 4
ART 234	Art and Architecture in Europe ..... 4
ART 235	History of African Art ..... 4
ART 237	Modern & Contemporary Western Art History..... 4
ART 314	Art and History of Film ..... 4
	Total.....12

Concentration:

Painting, Ceramics, Photo, Printmaking, Sculpture, Mixed Media, Drawing, or Graphic Design

Art 2xx	Art Studio Elective ..... 4
ART 3xx	Art Studio Elective ..... 4
ART 4xx	Art Studio Elective ..... 4
ART 485	Senior Seminar & Concentration ..... 2 or 3*
ART 486	Senior Concentration & Thesis ..... 2 or 3*
Art electives (any ART courses).....	12

\*a double concentration requires 3 hours (total: 50)

Double major in art and another discipline: 36 hours

Required courses:	
ART 131	Intro to Visual Arts..... 2
ART 211	Drawing I..... 2
ART 241	Two-dimensional Design ..... 2
ART 242	Three-dimension Design ..... 2
	Total ..... 8

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Two of the following six:

ART 231	Ancient Art History.....	4
ART 232	Renaissance and Baroque Western Art History .....	4
ART 234	Art and Architecture in Europe.....	4
ART 235	History of African Art .....	4
ART 237	Modern & Contemporary Western Art History.....	4
ART 314	Art and History of Film .....	4
	Total.....	8

Concentration:

Painting, Ceramics, Photo, Printmaking, Sculpture, Mixed Media, Drawing, or Graphic Design

ART 2xx	Art Studio Elective .....	4
ART 3xx	Art Studio Elective .....	4
ART 4xx	Art Studio Elective .....	4
ART 485	Senior Seminar & Concentration .....	2
ART 486	Senior Concentration & Thesis.....	2
	Art electives (any ART courses).....	4

**Art Minor:** 14 semester hours

A student may obtain an art minor by completing 14 hours in art including any art history, Drawing I, and additional hours of art courses.

## COURSE DESCRIPTIONS

### Ceramics

**ART 271 Ceramics I** (4, 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. Culture: Art.

**ART 371 Ceramics II** (4, 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** (4, 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.

### Design

**ART 241 Two-dimensional Design** (2, F)

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** (2, F)

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** (2, F&S)

Basic introduction to drawing media and techniques; exploration of concepts of form and space in varied subject matter. Culture: Art.

**ART 311 Anatomy and Figure Drawing** (4, F)

Elements, principles, and techniques of artistic anatomy. Emphasis on presentations as they relate to the figure and portrait. Study of skeleton and musculature from casts and live models. Prereq: ART 211.

**ART 411 Experimental Media in Drawing** (4, S)

Experimental processes, techniques, and concepts of investigative drawing. Emphasis is on drawing as an

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expressive media independent of immediate observation and as a viable end in itself. A wide variety of experimentation with surfaces, materials, and applications will be encouraged. Emphasis will also be placed on the selection of an idea both in terms of process and materials. The development of abstraction in the 20<sup>th</sup> century and relevant major artists will be studied and used for reference. Prerequisite: ART 211.

## **Graphic Design**

### **ART 245 Graphic Design I**

(4, F&S)

Introduction to theory and practice of graphic design communication. Emphasis on techniques for exploration of two-dimensional problems, and interpretation of verbal to visual form. Computer design is introduced. Culture: Art.

### **ART 345 Graphic Design II**

(4, 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**

(4, S)

Subjects include maintaining variety and consistency across multiple related projects, and a variety of complex contemporary design problems.

### **ART 447 Graphic Design Internship**

(4, 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**

(4, 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. Culture: Art.

### **ART 321 Painting II**

(4, F)

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

### **ART 421 Painting III**

(4, F)

Emphasis on individual development and refinement of personal expression in various approaches to painting. Prerequisite: ART 321.

## **Photography**

### **ART/COMM 224 Time, Motion and Communication**

(4, F)

This course is an introduction to the foundational concepts of communications design in which time is an important formal element. Studio work will explore ways that images and design change over time in ways that enhance narrative or interactive communication: time and motion explored as formal properties; history of time-based communication and interactivity; extensive studio work developing key concepts in time and communication. This course has a lab fee.

### **ART/COMM 228 Digital Video I**

(4, S)

This course is an introduction to the movie-making process using digital tools. Students will learn the basics of managing digital workflow and software interface, using a digital video camera, editing in Final Cut Pro, and saving final output to DVD. Also covered are basic principles of storytelling, location production, integration of titles and audio, critique and production skills, and output and archiving. This course has a lab fee.

### **ART 281 Foundations of Photography**

(4, F)

An introduction to the basic photographic techniques and processes of black and white photography includ-

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ing camera operation, film processing, printing and presentation. Intensive studio assignments will be reinforced through readings, discussions, demonstration, critiques and lectures. The history of photography and conceptual frameworks will be introduced as well. This course has a lab fee. Culture: Art.

**ART 282 Experimental Darkroom Processes** (4, OD)

Examination of various darkroom image-making and printing techniques, including pinhole, cyanotype, projection, photogram, as well as toning and hand coloring in traditional black and white prints.

**ART 284 Introduction to Digital Imaging** (4, F)

This course explores the production, consumption, and critique of digital images. From art and design, to entertainment, to news media, and user-generated content, the computer is used to generate an infinite variety of visual content. We will use Photoshop not only as a tool for creating and manipulating images, but also as a tool for visual problem solving, and content ideation. Studio projects are reinforced with readings, discussions, lectures, and critiques. This course has a lab fee.

**ART 382, 482 Advanced Topics in Photography** (4, S)

A continued exploration of photographic techniques and concepts with an emphasis on digital workflow, including digital camera operation, digital output, and strobe lighting. Intensive, conceptually driven studio assignments will be reinforced through readings, discussions, critiques, and lectures. This course has a fee. Prerequisite: ART 281.

**ART 384 Advanced Digital Imaging** (4, OD)

Continued study and development of the creative possibilities of digital image making. Investigation of advanced processes in use of digital cameras and manipulative creative possibilities. Study will be structured by art faculty to meet the needs of the advanced student. Prerequisite: ART 284.

**Printmaking**

**ART 161 Digital and Photographic Process Printmaking** (4, S)

This course serves as an introduction to printmaking with photographic and digital tools. Development of imagery will concentrate on the concept of "the multiple" within the printmaking media of digital imaging, photo serigraph and photo intaglio processes.

**ART 261 Introduction to Printmaking** (4, F)

This course serves as a comprehensive look into intaglio and relief methods of printmaking. Discussion and research will center on the concepts of edition or multiple printing as well as unique images made through various print methods and techniques. Non-toxic methods and contemporary technique and studio practice, as well as dialog of historical context of printmaking will be discussed. Students become versed in etching, woodcut, linotype, drypoint, monotype and their combinations as they developed historically. A field trip is taken to print collections to provide direct experience with important works. Culture: Art.

**ART 361 Digital and Photographic Process Printmaking** (4, S)

This course serves as an exploration of contemporary and traditionally based printmaking from a photographic view. Research and development of imagery will center on the social, historical and contemporary idea of the multiple within the printmaking media of digital imaging, photo serigraph and photo intaglio processes. Art majors only.

**ART 461 Advanced Topics in Printmaking** (4, OD)

Students will use vocabulary and language of their own decided theme to execute images through the media of traditional and contemporary methods of Lithography and Etching. Students will work towards a portfolio of imagery that carries as a body of work. May be repeated for independent comprehensive investigation of any media. Prerequisite: ART 161, 261 or 361.

**Sculpture**

**ART 251 Sculpture I** (4, 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. Culture: Art.



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**ART 351 Sculpture II** (4, OD)  
Exploration of three-dimensional form/space through individual creative experiences working with various sculptural media. Prerequisite: ART 251.

**ART 451 Sculpture III** (4, OD)  
Advanced exploration of various sculptural concepts with development of the personal statement in one or more media. Prerequisite: ART 351.

### **Special Topics**

**ART 295, 395 Special Topics** (1-4, OD)  
A course designed to provide opportunity for students to explore avenues not covered in other listed courses. Examples include: Fine Arts Book and Papermaking, Figurative Clay Sculpture, Illustration, Portrait Media, Landscape Painting, Landscape Photography, and Web design. *May* meet Culture: Art. (check catalog listing: Integrative Studies).

### **History and Appreciation**

**ART 131 Introduction to the Visual Arts** (2, F or S)  
Overview of the visual arts illustrating basic principles and underlying philosophy of art. Emphasis on the contemporary. Culture: Art.

**ART 132 Art and Architecture in Context in Europe** (4, M12)  
A course for the non-art student participating in the Mayterm trip to Europe. Approximately 20 days studying art and artists from antiquity to the present. Readings, journal-keeping and questions pertaining to site-specific works are required. Culture: Art.

**ART 231 Ancient Art History** (4, F11)  
History of world art from prehistoric to the 14th century. Emphasis on role of art as visual communication of religious, political, and social concerns. Culture: Art.

**ART 232 Renaissance and Baroque Art History** (4, S12)  
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. Culture: Art.

**ART 234 Art and Architecture in Europe** (4, M12)  
Approximately 20 days studying the art and artists from antiquity to the present. Readings, journal-keeping, and questions pertaining to site-specific works are requirements. Course is intended for the art major. Culture: Art.

**ART 235 African Art History** (4, M, S11)  
A selective survey of the visual arts produced on the African continent from antiquity through the present. Consideration of colonial influences on African art and African art's influence on Western art, including the African American Diaspora. Emphasis upon seeing and understanding art in the context of daily life, religion and society. Culture: Art.

**ART 236 Asian Art History Survey** (2, OD)  
History of the art of Asian cultures, from ancient times to the present. Introduction to major ideas, periods, methods, and materials with emphasis on the art of China and Japan and their impact on the art of the west. Overview of India, Korea, Islam, and tangential cultures. Culture: Art.

**ART 237 Modern and Contemporary Western Art History** (4, S11)  
History of Western art from the mid-18th century through the early 21<sup>st</sup> century. Analysis of major movements and artists, their underlying philosophy and cultural influences, and the role of critics in shaping dialogue. Culture: Art.

**ART 314 The Art and History of Film** (4, S11)  
An introduction to the history, craft, theory, and critical content of film; 15 films viewed in class, 20-25 outside of class research work. Culture: Art.

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

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

**ART 291; 391; 491 Independent Study (no fee)** (1, 2, 3, or 4)

**ART 292; 392; 492 Independent Study (with fee)** (1, 2, 3, or 4)

**Pre-Art Therapy**  
Faculty Advisors: Jillian L. Sokso, Paul D. Young

Please see Pre-Art Therapy section of catalog.

## Australian Studies (minor)

**Web site:** [www.houghton.edu/academics/oep/australia](http://www.houghton.edu/academics/oep/australia)  
**Phone:** 585.567.9634

Houghton Down Under will not be offered for Fall 2010. The Houghton Down Under program is currently under revision.

## Bible (major and minor)

**Department of Biblical Studies:** Terence P. Paige, chair. W. Christopher Stewart, Associate Dean

**Faculty:** Kristina LaCelle-Peterson, Terence P. Paige, Carl Schultz, Kulli Tõniste

**Web site:** [www.houghton.edu/academics/programs/religion-philosophy](http://www.houghton.edu/academics/programs/religion-philosophy)  
**Phone:** 585.567.9460

**Bible: BA/BS** (32 core hours in the major; 6-10 option hours)  
A major in Bible is recommended for those expecting to become missionaries, teachers of biblical studies, or leaders in para-church ministries. It also prepares students for seminary or graduate work in biblical studies, theology, and related disciplines. Majors must take all core courses and choose one option.

Major required courses:		
BIBL 221	Biblical Interpretation .....	4
BIBL 231	Pentateuch .....	4
BIBL 233	Jesus and the Gospels .....	4
Bible electives	.....	12
BIBL 355	Biblical Theology I <i>and</i>	
	BIBL 356 Biblical Theology II.....	2,2

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BIBL 482	Senior Capstone: Senior Seminar.....	4
	Total: .....	32
Option 1: Language		
	GREK 101-102 or HEBR 101-102 .....	8
	GREK 111 or HEBR 111 Fundamentals of Greek or Hebrew .....	2
	Total: .....	10
Option 2: Non-Language		
	HEBR 111 Fundamentals of Biblical Hebrew.....	2
	GREK 111 Fundamentals of Biblical Greek .....	2
	CRFM 325 Bible Study and Teaching Methods.....	2
	Total: .....	6

**Minor:** 12 hours in Bible, numbered 200 or above

## COURSE DESCRIPTIONS

**BIBL 101 Biblical Literature** (4, F&S & May)  
Survey of the types of literature found in the Bible. Considers the origin of the biblical texts and canon; basic issues of interpretation (hermeneutics); and an outline of the history of Israel and of the New Testament church as a backdrop for the message. Literary, historical, and theological aspects of selected texts will be explored. **This is a prerequisite for all Bible courses and THEL 209.** Faith Foundation - Bible.

**BIBL 221 Biblical Interpretation** (4, 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** (4, S)  
Analysis of critical and historical background, literary content, and development of the religion of Israel. Relevancy of contents.

**BIBL 233 Jesus and the Gospels** (4, 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** (4, OD)  
Study of the history of the Jewish people and surrounding civilizations. Old and New Testament backgrounds. Intensive study of the geography of the Holy Land. No IS credit.

**BIBL 261 Holy Land Tour** (4, OD)  
Through visits to cultural, historical, and archaeological sites in Israel, biblical history and geography will be elucidated. Visits will be preceded by lectures and the reading of preparatory materials and followed by lectures and discussions. No IS credit.

**BIBL 270 Old Testament Historical Books** (4, F)  
Study of the 12 Books of History, including Joshua through Esther. Integrates critical, analytical, and devotional approaches, and combines inductive and lecture methods.

**BIBL 272 Gospel and Epistles of John** (4, 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 275 Women in the Bible** (4, OD)  
Examines biblical material that depicts the experiences of women or deals with teaching about women as a class. Explores the main social, political and religious arrangements which affected the lives of women in Scripture. Using various interpretive approaches, it considers the significance of the texts about women in their historical context and for people in the redeemed community in the current era.

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**BIBL 280 Poetic Books**

(4, OD)

Consideration of the structure and contents of Hebrew poetry and wisdom literature with a comparative study of similar genre of literature in the Near East.

**BIBL 282 Pauline Epistles**

(4, S)

Brief overview of Paul's life followed by survey of Pauline letters (Romans-Philemon). Literary and historical analyses, occasionally supplemented by other types of study, will be used to understand Paul's message and the theology of the letters.

**BIBL 310 Old Testament Prophets I**

(4, F)

A study of the prophets during the period of the Monarchy as recounted in the historical books and the prophetic books of the 8th-7th centuries B.C., during the period of the Assyrian Empire (Isaiah, Hosea, Amos, Jonah, Micah, Nahum, Zephaniah). Covers historical context, and literacy and theological issues.

**BIBL 312 Old Testament Prophets II**

(4, S)

Study of the prophets from the end of the 7th through the 5th centuries B.C., during the period of the Babylonian and Persian empires (Jeremiah, Ezekiel, Habakkuk, Obadiah, Joel, Haggai, Zechariah, and Malachi). Covers historical context, and literary and theological issues of the books.

**BIBL 335 General Epistles**

(4, 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 351 Daniel/Revelation**

(4, May)

A study of the nature of apocalyptic literature, critical problems, and various systems of interpretation.

**BIBL 355 Biblical Theology I**

(2, S12)

Examination of the teaching of the Old Testament, developed from the distinctive perspective of Biblical theology. Major themes and methods of inquiry.

**BIBL 356 Biblical Theology II**

(2, S11)

Examination of the teaching of the New Testament, developed from the distinctive perspective of Biblical theology. Major themes and methods of inquiry.

**BIBL 360 Science and Scripture**

(4, F)

Examination of the historic and current relationship between science and Scripture with a challenge of the "warfare" model that developed in the aftermath of the Darwinian controversy. A careful analysis of both science and Scripture will be made. Attention will be given to four possible ways of relating: Conflict, Contract, Contact, or Confirmation.



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- BIBL 361 Job** (4, 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** (4, 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** (4, OD)  
 Study of the book of Acts from literary, historical, and theological perspectives. Attention will be given to early church growth and contemporary relevance.
- BIBL 395 Special Topics in Bible** (2 or 4, OD)  
 Study of select blocks or groups of Scripture related to a particular topic or theme.
- BIBL 410 Isaiah** (2, OD)  
 A study of the historical, critical, and contextual issues, with an emphasis on a vital faith to our generation.
- BIBL 412 Jeremiah** (2, OD)  
 Historical, cultural background, structure and contents of Jeremiah will be studied. Attention given to Jeremiah's influence on his contemporaries and the relevance of his message for our time.
- BIBL 451 Romans** (2, OD)  
 Detailed exegetical examination of Romans, emphasizing literary and theological analyses which are formed by the context of first-century culture. Explores history of interpretation issues, developments in contemporary Pauline studies that are related to the letter, & application to contemporary life. Prerequisite: one other Bible course, 200-level or higher.
- BIBL 453 1 Corinthians** (2, OD)  
 An intensive study of the literary structure, the historical setting, and the theology of 1 Corinthians. Prerequisite: one other Bible course, 200-level or higher.
- BIBL 482 Senior Capstone: Senior Seminar in Bible** (4, S)  
 A discussion course focused on individual student projects addressing themes, issues, or problems that bring together biblical material, the Christian tradition, and contemporary concerns. Required of all Bible majors.
- BIBL 191, -2; 291, -2; 391, -2; 491, -2 Independent Study** (1, 2, 3, or 4)
- BIBL 496 Honors in Bible** (4, OD)
- GREEK**
- GREK 101, 102 Beginning Greek Level 1, Level 2** (4/4, F/S 10-11)  
 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. Level 2 - Foreign Language Competency.
- GREK 111 Fundamentals of Biblical Greek** (2, S11)  
 Basics of the Greek language to enable better use of reference materials and facilitate research or personal study. Covers alphabet, some morphology and syntax concepts, and will familiarize the student with exegetical resources. Does not give reading knowledge. Cannot be substituted for GREK 101 or IS foreign language.
- GREK 201 Greek Readings** (2, OD)  
 Readings in New Testament Greek. May include selections from the Septuagint or other Hellenistic Greek texts. Prerequisite: GREK 101 and 102.
- GREK 191, -2; 291, -2; 391, -2; 491, -2 Independent Study** (1, 2, 3, or 4)
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## HEBREW

### HEBR 101, 102 **Beginning Hebrew Level 1, Level 2**

(4/4, F/S11-12)

Elements of Biblical Hebrew. Reading from Old Testament. Level 2 - Foreign Language Competency.

### HEBR 111 **Fundamentals of Biblical Hebrew**

(2, S alternate years)

A study *about* biblical Hebrew, rather than a course teaching biblical Hebrew. Seeks to introduce basic language comprehension so one may use commentaries, wordbooks, lexicons, and computer biblical research programs that use Hebrew. Cannot be substituted for HEBR 101 or IS foreign language.

### HEBR 201 **Hebrew Readings**

(2, OD)

Readings in Biblical Hebrew. Prerequisite: HEBR 101 and 102.

*HEBR 191, -2; 291, -2; 391, -2; 491, -2 Independent Study*

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## Biochemistry BA/BS (major)

**Department of Biology:** Matthew K. Pelletier, chair. Keith A. Horn, Associate Dean

**Faculty:** Matthew K. Pelletier, Jamie L. Potter, Aaron M. Sullivan, Kurt Vandock, James M. Wolfe

**Part-time:** Dr. David A. Brubaker

**Web site:** [www.houghton.edu/academics/programs/biology/](http://www.houghton.edu/academics/programs/biology/)

**Phone:** 585.567.9280

**Department of Chemistry:** Irmgard K. Howard, chair. Keith A. Horn, Associate Dean

**Faculty:** Irmgard K. Howard, Karen E. Torraca, John M. Rowley

**Emeritus Professor:** Larry W. Christensen

**Web site:** [www.houghton.edu/academics/programs/chemistry](http://www.houghton.edu/academics/programs/chemistry)

**Phone:** 585.567.9280

The major in Biochemistry is designed to provide students with maximum flexibility in learning a field that prepares them for a variety of applications, including medicine, graduate research, and education.

### **Biochemistry: BA/BS** (32 hours in major; 16 prerequisites; 20 co-requisites)

#### Prerequisites (16):

BIOL 151, 152	General Biology I, II.....	8
CHEM 151, 152	General Chemistry I, II .....	8

#### Co-requisites (20):

CSCI 211	Programming I .....	4
MATH 180	Calculus and its Origins or Math 181 Calculus I .....	4
PHYS 151, 152	General Physics I, II .....	8
PSY 309	Statistics .....	4

#### Required (32) which must include:

CHEM 241, 242	Organic Chemistry I, II .....	8
BIOL 251	Genetics .....	4
BIOL 370	Molecular and Cell Biology .....	4
CHEM 332	Biochemistry .....	4
CHEM 334	Bioanalytical Lab .....	1
CHEM 268	Special Topics in Chemistry .....	2
CHEM 352	Physical Principles .....	4
BIOCHM 480	Capstone: Seminar in Biochemistry .....	1
BIOL XXX	Elective .....	4
<i>Research strongly encouraged</i>		

## COURSE DESCRIPTIONS

### BIOCHM 480 **Capstone Seminar in Biochemistry**

(1, S)

Biochemistry Seminar, the capstone course for the biochemistry major, allows students and professors the occasion to think together about biochemistry: its current topics, history, and issues of science and faith.

**Biology BA, BS** (major and minor)  
**Department of Biology:** Matthew K. Pelletier, chair. Keith A. Horn, Associate Dean  
**Faculty:** Matthew K. Pelletier, Jamie L. Potter, Aaron M. Sullivan, Kurt Vandock, James M. Wolfe  
**Part-time:** Dr. David A. Brubaker, Eli Knapp  
**Web site:** [www.houghton.edu/academics/programs/biology/](http://www.houghton.edu/academics/programs/biology/)  
**Phone:** 585.567.9280

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

Prerequisites (8):	
BIOL 151, 152	General Biology..... 8
<i>Note unless a grade of C- is earned in the lecture component of both BIOL 151 and BIOL 152 students must enroll concurrently in BIOL 151 or BIOL 152 if also enrolling in 200 level or higher biology courses.</i>	
Required (26) which must include:	
BIOL 251	Genetics ..... 4
BIOL 322	General Ecology ..... 4
	Organismal Biology..... 4
<i>One course chosen from following:</i>	
	<i>BIOL 207 Wildlife Behavior in East Africa..... 4</i>
	<i>BIOL 231 Comparative Vertebrate Anatomy ..... 4</i>
	<i>BIOL 301 Field Botany ..... 4</i>
	<i>BIOL 315 Marine Biology ..... 4</i>
	<i>BIOL 336 Animal Behavior ..... 4</i>
	<i>BIOL 372 Comparative Animal Physiology..... 4</i>
BIOL 482	Senior Seminar ..... 2
BIOL XXX	Electives .....12
<i>Experiential Biology (Note credit hours towards the major are only earned if fulfilling this requirement with BIOL 394 or an approved course at Au Sable)</i>	
<i>One of the following:</i>	
<i>BIOL 394 Collaborative Research, INCL 348 Foundations of Health Development, PRPR 202A Pre-Medical/Pre-Dental Practicum, an NSF-funded Summer Science Internship, a Field Course at the Au Sable Institute of Environmental Studies or completion of the EMT-basic course provided by Allegany County Emergency Services</i>	
Co-requisites (28):	
CHEM 151, 152	General Chemistry ..... 8
CHEM 241, 242	Organic Chemistry ..... 8
PHYS 151, 152	General Physics ..... 8
MATH 180	Calculus and Its Origins or
	MATH 181 Calculus I ..... 4

**Pre-Health Professions** - Graduates from this major primarily enter graduate programs, some aspect of the health professions (allopathic medicine, osteopathic medicine, podiatry, optometry, dentistry, medical technology, physical therapy), veterinary medicine or environmental science. Those students interested in studies preparing them for the health professions should refer to the detailed description of these programs under Pre-Health Professions in this catalog.

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

Prerequisites (8):	
BIOL 151, 152	General Biology ..... 8
Required (26) which must include:	
BIOL 251	Genetics ..... 4
BIOL 482	Senior Capstone: Senior Seminar ..... 2
BIOL XXX	Electives ..... 20
Co-requisites (8):	
CHEM 151, 152	..... 8

Graduates from this program primarily enter the field of science teaching in secondary schools. Students interested in working toward certification to teach Biology at the middle and high school levels can do so by double-majoring in Biology and Adolescence Education (ADE) or Biology and Inclusive Childhood Educa-

tion (ICE). Please see the Education Department section of this catalog for details. For further information on the biology programs, contact Professor Matthew Pelletier at [matthew.pelletier@houghton.edu](mailto:matthew.pelletier@houghton.edu).

**Environmental Programs**

Environmental programs at Houghton take advantage of the college’s location in the Allegheny Plateau (ranging in elevation from 1000 to 2500 feet), with access to forest, river, and lake ecosystems, and the Atlantic Ocean. In addition, Houghton’s 1300-acre campus has forest and field areas for study. The 91-acre Spring Lake preserve, incorporating an old growth forest and undeveloped kettle lake within eight miles of the campus, is available for environmental research.

Two Houghton programs emphasize Christian stewardship of the creation as well as environmental awareness and analysis. The BA/BS major in biology with environmental emphasis prepares students for careers in environmental education, research and analysis, and further study in graduate program. Field-oriented courses complement a strong biology background, including at least one course at AuSable Institute of Environmental Studies (see Off-Campus Programs section), a center for Christian environmental stewardship. The environmental stewardship minor (see Environmental Science) for science and non-science majors provides background for responsible stewardship. Required courses include Local Flora and Natural Resource Management. A senior seminar offers exposure to environmental leaders at the local, state, and national level. For further information on the environmental programs, contact Professor James Wolfe at [james.wolfe@houghton.edu](mailto:james.wolfe@houghton.edu).

**Biology with Environmental Emphasis: BA** (26 hours in major; 16 co-requisites):

Prerequisites (8):	
BIOL 151, 152	General Biology ..... 8
Required (26) which must include:	
BIOL 251	Genetics ..... 4
BIOL 301	Field Botany ..... 4
BIOL 322	General Ecology ..... 4
BIOL 482	Senior Capstone: Senior Seminar ..... 2
BIOL xxx	At least one course with zoological emphasis ..... 4
Field experience requirement fulfilled by:	
a) at least one biology course at the AuSable Institute of Environmental Studies (max. 8 hours), or	
b) field course (4) at another accredited institution, or	
c) significant intern or work experience	
Co-requisites (16):	
CHEM 151, 152	General Chemistry I, II ..... 8
ESCI 101	Physical Geology ..... 4
ESCI 212	Environmental Earth Science ..... 4
Recommended courses include the following:	
REC 401	National Resource Management ..... 4
SOC 309	Statistics ..... 4

**Biology with Environmental Emphasis: BS** (26 hours in major; 36 co-requisites)

Prerequisites (8): see BA above	
Required (26): see BA above	
Additional co-requisites (20):	
CHEM 241, 242	Organic Chemistry ..... 8
MATH 180	Calculus and Its Origins or
	MATH 181 Calculus I ..... 4
PHYS 151, 152	General Physics I, II ..... 8
Recommended courses: see BA above	

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

**Biologist (wildlife)** (18 hours required): BIOL 105 Conservation Biology (4), Wildlife Biology, Animal Ecology, BIOL xxx Special Topics: Ornithology (4), BIOL 211 Ecology of Alaska (4), REC 401 Natural Resources Management (4).



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**Biologist (ecology)** (18 hours required): BIOL 151 General Biology (4), Animal Ecology, BIOL 301 Field Botany (4), Forest Ecology, BIOL xxx Special Topics: Limnology (4), BIOL 211 Ecology of Alaska (4), BIOL 220 Biological Oceanography (2).

**Biology minor:** 12 hours above BIOL 151, 152

## COURSE DESCRIPTIONS

**BIOL 103 Fundamentals of Biology** (4, F, S)  
Principles of biological structure and function, particularly as they relate to man. Three lecture, three laboratory hours each week. Lab Science or 2<sup>nd</sup> Science.

**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 of aquatic and terrestrial ecosystems. Three lectures, three laboratories hours each week. May not be used toward the biology major or minor. Lab Science or 2<sup>nd</sup> Science.

**BIOL 151, 152 General Biology** (4/4, F/S)  
Two-semester survey; preparation for advanced work. 151 includes ecology, plant and animal taxonomy and physiology, and animal behavior; 152 includes cell biology and metabolism, genetics, and origins. Three lecture, three laboratory hours each week. Note: BIOL 151 or permission is prerequisite to BIOL 152. BIOL 151 and 152 are prerequisites for major level courses above 200. Lab Science or 2<sup>nd</sup> Science.

**BIOL 207 Wildlife Behavior in East Africa** (4, S)  
(See course description in Off-Campus Programs - Tanzania section.)

**BIOL 211 The Ecology of Alaska** (4, M11)  
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 is \$1,500. Prerequisite: BIOL 152.

**BIOL 215 Local Flora and Vegetation** (3, F)  
Field identification of local ferns, shrubs, trees, and herbaceous flowering plants. Lecture covers broader vegetational ecosystems of North America. Small herbarium required. Two lecture, three laboratory hours each week. *May not be used toward the biology major or minor.* Lab Science or 2<sup>nd</sup> Science.

**BIOL 217 Human Anatomy and Physiology I** (4, F)  
Systematic study of structure and function of the human organism, including microanatomy of organs. General organization of the body, basic tissues, and the integumentary, skeletal, muscular, and nervous systems. Three lecture, three laboratory hours each week. *Does not count for major or minor credit except where required for graduate programs and upon permission of the department chair.* Lab Science or 2<sup>nd</sup> Science.

**BIOL 218 Human Anatomy and Physiology II** (4, S)  
Sequel to BIOL 217. Endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, reproductive systems; acid-base and fluid-electrolyte balance. Prerequisite: BIOL 217 or permission. Three lecture, three laboratory hours each week. Note: BIOL 217 and 218 are designed to fulfill the certification requirements for the physical education major and admission requirement for some schools of nursing and physical therapy. *Does not count for major or minor credit except where required for graduate programs and upon permission of the department chair.* Lab Science or 2<sup>nd</sup> Science.

**BIOL 231 Comparative Vertebrate Anatomy** (4, S11)  
Comparative study of vertebrate structure. Laboratory includes dissection and detailed study of representative vertebrates. Two lecture, six laboratory hours each week.

**BIOL/PHED 232 Epidemiology** (2, M OD.)  
This course will study the cause and transmission of human diseases within a population relating not only to the infectious agent but also the genetic makeup of the community and the social, behavioral, economic and cultural factors of the people affected. Lectures will address the history of public health and epidemiology

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including cost/benefit analyses, public health policy, and the implications of case reporting to the CDC and local public health departments. The basic principles of the science of epidemiology, with an emphasis on identifying patterns and formulating testable hypothesis to the disease outcome, understanding the types of epidemiological studies, clinical and community trials and the essential biostatistics involved in any experimental design will be addressed.

**BIOL 242 Microbiology** (4, F)

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: BIOL 151, 152 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. Prerequisite: BIOL 152 or permission. Lab Science or 2<sup>nd</sup> Science.

**BIOL 301 Field Botany** (4, F)

Introduction to taxonomy, systematics, and ecology of vascular plants. Course includes field trips throughout western New York and northwestern Pennsylvania; plant identification and classification; develop extensive herbarium. Two lecture, six laboratory hours each week.

**BIOL 315 Marine Biology** (4, OD)

Comprehensive study of marine ecosystems including the foundations of physical and chemical oceanography as they impact the ecology of marine organisms. Overview of structure, physiology, and ecology of marine life from phytoplankton to whales. Labs cover the representative marine divisions (plants) and phyla (animals) and may include a field trip to the northeast Atlantic coast.

**BIOL 320 Limnology** (4, OD)

Introduction to freshwater aquatic ecosystems with emphasis on lakes. Includes the study of physical, chemical, and biological factors which influence ecosystem function and health. Lake management and conservation included. Labs cover field analysis of a local lake ecosystem culminating in a comprehensive report. Three lecture and three laboratory hours each week.

**BIOL 322 General Ecology** (4, S)

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 336 Animal Behavior** (4, S)

Provides an introduction to the biological study of animal behavior. Lecture topics will focus primarily on why animals behave as they do and, to a lesser degree, how they get the job done. Topics to be covered include: genes and behavior, learning, organization of behavior, communication, mating systems, parental investment and cooperation. Three lecture, three laboratory hours each week. Prerequisite: BIOL 151, 152.

**BIOL 365 Immunology** (4, S11)

Theoretical and clinical approaches to study of innate and adaptive immune systems: antigen recognition, immune response, immune system, and its pathologies. Three lectures, three lab hours each week.

**BIOL 370 Molecular and Cell Biology** (4, F)

The course provides an introduction to the biochemistry of cells, transport across membranes, cell-to-cell signaling, organelle function, and protein targeting, with an emphasis on methods in molecular and cell biology. Three lecture hours and one three-hour lab per week. Labs will focus on molecular techniques such as cloning, PCR, generation and purification of recombinant proteins, and blotting techniques (DNA, RNA, and Protein). Prerequisite: BIOL 251.

**BIOL 372 Comparative Animal Physiology** (4, OD)

General consideration of functional processes in animals with emphasis on the comparative aspects. Three lecture, three laboratory hours each week.

- BIOL 374 Human Genetics and Disease** (4, S12, 14)  
Our understanding of human genetics is increasing at an incredible pace. This course will explore a number of modern topics including the Human Genome Project, human genetic diseases and gene therapy, human genetic testing, human genetics and behavior, and quantitative traits. Connections between human genetics and society will also be explored. Three lecture hours, optional three-hour lab. Prerequisite: BIOL 251.
- BIOL 380 Pathogenic Microbes** (4, S12)  
Diseases caused by common bacteria, fungi, parasites and viruses in mammals and plants. Topics include classification, immune response, pathogenesis, virulence mechanisms, host-vector-pathogen paradigm, diagnosis, and control of infectious microorganisms. Discussion of current literature to further develop understanding and significance of pathogenic microbes and their diseases. Three hours lecture, two hours discussion/seminar. Prerequisites: BIOL 151/152 and 242.
- BIOL 382 Developmental Biology** (4, OD)  
Study of morphogenesis and biochemical processes involved in development, with emphasis on vertebrates. Three lecture, three laboratory hours each week. Prerequisite: BIOL 251.
- BIOL 393 Summer Collaborative Research in Biology** (1-4, Summer)  
Summer research in collaboration with a biology faculty member focusing on current areas of research including immunology, pathophysiology, molecular genetics, animal behavior, and forest / freshwater ecosystem analysis. Students work intensively with a faculty member over the course of four weeks during the summer. Prerequisite: BIOL 151, 152. Permission of instructor required.
- BIOL 394 Collaborative Research in Biology** (4, F, S)  
Research in collaboration with a faculty member focusing on current research in areas of immunology, molecular genetics, animal behavior, and forest/water ecosystem analysis. Students work in small teams reviewing literature, designing projects, performing experiments, collecting and analyzing data, and writing up their work in manuscript form. Prerequisite: BIOL 151, 152. Permission of instructor required.
- BIOL 195, 295, 395, 396 Special Topics** (1-4, F & S)  
Courses designed to meet the individual needs of advanced students in such areas as medical terminology, virology, disease pathogenesis, animal behavior, and research in biology. Some of the courses include laboratory. Lab Science or 2<sup>nd</sup> Science.
- BIOL 475 Environmental Stewardship Seminar** (1, OD)  
The course focuses on examining environmental issues and problems in light of the Christian faith with the goal of developing a personal stewardship ethic. Beginning with local environmental problems, and then moving to global issues and ethics. Outside speakers from the larger community, including representatives from the NYDEC, The Nature Conservancy, and local politicians.
- BIOL 480 General Science Seminar** (1, S)  
Written thesis and oral presentation on a topic selected for interdisciplinary breadth describing current scientific research in the area of the student's concentration, based on a thorough review of scientific literature.
- BIOL 482 Senior Capstone: Senior Seminar** (2, S)  
Discussions on history of biological science, ethical problems in biology and health related issues, origins and biotechnology and society as well as environmental issues are covered. Open only to majors.
- BIOL 391, -2; 491, -2 Independent Study** (1, 2, 3, or 4)  
Research under the supervision of a biology department faculty member. Total five credits.
- BIOL 496 Honors in Biology** (4)
- PRPR 202A Premedical-Pre-dental Practicum (P/U)** (3, May)  
Observation and practical experience with physician or dentist on a one-to-one basis. Preparation and sharing of experiences on the Houghton campus. Open only to serious medical or dental school candidates.

# Business Administration

(major and minor)

**Department of Business and Economics:** Kenneth J. Bates, chair. Paul D. Young, Associate Dean

**Faculty:** Kenneth J. Bates, Robert A. Black, Katherine A. Buvoltz, Richard A. Halberg, Daniel C. Minchen, Lois A. Ross

**Web site:** [www.businessathoughton.com](http://www.businessathoughton.com)

**E-mail:** [business@houghton.edu](mailto:business@houghton.edu)

**Phone:** 585.567.9440

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

**Major: BS** (46 hours plus 6 in pre-co-requisites).

Pre/co-requisites:		
BADM 45	Spreadsheet Competency .....	0
ECON 201	Intro to Economics .....	2
ECON 210, 211	Principles of Micro and Macroeconomics .....	2, 2
Pre/co-requisite total .....		6
Major core courses:		
ACCT 211	Financial Accounting .....	3
ACCT 212	Managerial Accounting .....	3
BADM 212	Principles of Management .....	4
BADM 218	Marketing Principles .....	4
BADM 213 or 214	Business Law I or II .....	4
BADM 309	Statistics .....	4
ECON xxx	Economics elective .....	2
BADM 406	Financial Management .....	4
BADM 481	Business Strategy and Policy (Senior Capstone) .....	4
BADM 421	Internship in Business .....	2
Total .....		34

Elective Business courses: 12 hours from the courses below.  
*Elective hours may be used to develop a focus in any of the following six areas by taking 8 hours in one area.*

Economics:		
ECON 301	Money and Banking .....	2
ECON 310	Intermediate Microeconomics .....	1
ECON 311	Intermediate Macroeconomics .....	1
ECON 313	American Economic History I (Colonial Era to 1865) .....	2
ECON 314	American Economic History II (from 1865 to present) .....	2
ECON 315	Economics of Organization & Strategy .....	2
ECON 401	Monetary Theory and Policy .....	2
ECON xxx	Economics Elective .....	2
Management:		
BADM 301	Business Communication .....	2
BADM 303	Entrepreneurship .....	2
BADM 314	Human Resources Management ** .....	4
BADM 317	Management Information Systems .....	4
BADM 320	Leadership Development .....	4
BADM 330	Operations Management .....	4
Marketing:		
BADM 312	Advertising Principles ** .....	2
BADM 301	Business Communication .....	2
BADM 319	Marketing Research .....	2
BADM 340	eCommerce .....	2
Finance:		
ECON 301	Money and Banking .....	2
ECON 401	Monetary Theory and Policy .....	2
BADM 302	Investment Management .....	4
BADM 431	Security Analysis & Portfolio Management .....	1-4

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#### International Business:

IBI 331, 339, 350, 390	International Business Institute .....	12
ECON 212	International Economics .....	2
BADM 313	International Business .....	2
BADM 340	eCommerce .....	2
	an approved cross-cultural experience .....	2

#### International Economics:

ECON 212	International Economics .....	2
ECON 237	Comparative Economics Systems .....	2
BADM 313	International Business .....	2
	an approved cross-cultural experience .....	2

*\*\*required for concentration*

**Internships** are required of all students majoring in business. Practical experience provides an excellent opportunity to link the theory of the classroom with our work and practice. In addition, practical application may provide learning opportunities that cannot be duplicated in the classroom. For this reason all business majors are required to graduate with a minimum of two hours of internship experience. Additional credits may be earned for internships up to a total of six.

Students will meet the internship requirement through some type of work done for a business or not-for-profit organization. These experiences may occur in conjunction with other coursework taken during the fall or spring semester or during the summer or Mayterm. In all cases the emphasis of the work which makes it eligible for credit must be on what is learned through the experience.

Select courses may fulfill the internship requirement if the focus is on practical application of material that has been studied and involves activity similar to that in the workplace. Examples of courses that do this include:

BADM 431 - *Security Analysis & Portfolio Management* – Students in the course are members of the Student Investment Group and manage an equity portfolio on behalf of Houghton College. The students analyze stocks and make buy/sell decisions under faculty supervision.

ACCT 323 – *Tax Practicum* – Students prepare tax returns through the VITA (Volunteer Income Tax Assistance) Program of the Internal Revenue Service.

These courses may be taken multiple semesters to meet the two hour internship minimum.

Other courses may meet the requirement if their primary focus is the practical application. Examples are the ST: *Field Audit* conducted for SIL/Wycliffe in Ivory Coast and Thailand and the ST: *Free Enterprise and Value Creation* program. As illustrated by these courses, in order for any course to meet the internship requirement the intent of the course must be service learning through the application of principles learned in the classroom. Courses with a hands-on component or service learning project are encouraged in the curriculum but they do not meet the internship requirement. Courses meeting the internship requirement must be approved by the department.

#### **Minor:** (15 hours)

##### Required:

ECON 201	Introduction to Economics .....	2
ACCT 211	Financial Accounting .....	3
BADM 212	Principles of Management .....	4
	Plus 6 hours in business courses numbered 200 or above .....	6

#### **4 + 1 Accelerated MBA**

Five Years, Two Degrees. Houghton has established agreements with selected graduate schools whereby qualified students who have earned a Bachelor of Science degree in business can accelerate their MBA degree program. Students can waive certain MBA foundation courses, allowing them to complete a MBA in one year. Depending on the school, a grade of “B” or better in the designated undergraduate courses is needed to waive graduate level coursework. The courses must also be no older than five years upon matriculation into the MBA

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degree program. Students can consult with their advisor to obtain information about the courses selected for this program.

Houghton currently has 4+1 agreements with Alfred University, Clarkson University, and Rochester Institute of Technology.

### **Spreadsheet Competency Requirements** (required of all majors in the Department of Business and Economics)

All students majoring in any program of the Department of Business & Economics must meet a spreadsheet competency requirement. Specifically this competency is a prerequisite for certain courses such as ACCT 212 Managerial Accounting, BADM 309 Statistics, BADM 406 Financial Management, and BADM 481 Business Strategy & Policy.

The ways in which you may document your competency are:

1. Satisfactory completion of a college-level course (at Houghton College or elsewhere), a major portion of which is in the development of spreadsheet competency.
2. Satisfactory completion of a non-college level training course in the use of such software which requires at least 8 hours of instruction and is evidenced by a certificate or other written documentation, copies of which must be provided to Houghton College.
3. Satisfactory completion of the Houghton College competency examination on the use of Microsoft Excel®.
4. A letter on company letterhead from your employer attesting to your proficiency with Microsoft Excel® or an equivalent spreadsheet application as evaluated by the department faculty.

### **COURSE DESCRIPTIONS**

**BADM 45 Spreadsheet Competency** (0)  
See description above.

**BADM 102 Personal Finance** (2, F10, F12)  
Basic understanding of Christian perspectives toward stewardship, including the management of money & credit, insurance, budgeting, investment, and retirement planning. Elective credit only.

**BADM 103 Introduction to Business** (2, OD)  
Business operation, terminology, practices, and career opportunities. A survey course designed to give those interested in the business discipline an overview of what business is all about. A general survey of the entire field of business and management in the free enterprise system.

**ACCT 211 Financial Accounting** (3, F)  
Basic theory and practices of financial accounting. Emphasis on the proper recording of business transactions and understanding the effect transactions have on the financial statements of proprietorships, partnerships, and corporations. Includes analysis of key financial statement data. Prerequisite: Spreadsheet Competency.

**ACCT 212 Managerial Accounting** (3, S)  
Basic theories and practices of providing accounting information for use by decision makers within the organization. Prerequisite: Spreadsheet Competency and ACCT 211.

**BADM 212 Principles of Management** (4, 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** (4, F11, F13)  
An introduction to basic legal environment of business, contracts, sales and leases, and negotiable instruments.

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- BADM 214 Business Law II** (4, F10, F12)  
Basic law covering forms of business organization, agency, bankruptcy, government regulations, and professional liability.
- BADM 218 Marketing Principles** (4, F&S)  
Factors in product development, pricing, distribution, and promotion of consumer and business goods and services.
- BADM 220 Advanced Computer Applications** (4, OD)  
Mastery of programs and processes of selected business computer applications. Develops skills in charting, tracking and setting deadlines using project based software. Students will learn how to organize large volumes of data in a manner that facilitates access, reporting, and summarizing to support business decisions. Prerequisite: Spreadsheet Competency.
- BADM 301 Business Communication** (2, F)  
A study of communication theory and principles as applied to business writing and oral communication. Community: Communication.
- BADM 302 Investment Management** (4, 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** (2, F11, F13)  
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** (4, F&S)  
Descriptive and inferential statistics: Measures of central tendency and variability, discrete and continuous probability functions, sampling, estimation, hypothesis testing, correlation, regression, Chi Squared, ANOVA. (Also listed in, ECON, PSY, SOC) Prerequisite: Spreadsheet Competency. Quantitative Literacy Competency: Math.
- BADM/ADC 311 Employment Law** (3)  
A conceptual and functional analysis of the legal framework and principles of industrial and employment relations with special emphasis on discrimination based on race, sex, age, and disability; testing and performance appraisal; wrongful discharge; labor/management issues; and employee benefits.
- BADM 312 Advertising Principles** (2, S)  
(See description under the Communication major, COMM 312.) Prerequisite: BADM 218.
- BADM 313 International Business** (2, S12)  
An examination of the variations in business management and practices in developed and less developed countries around the world. Prerequisites: BADM 212, ECON 210, or permission.
- BADM 314 Human Resources Management** (4, F)  
The historical development of human resources management, its context and scope, along with an in-depth coverage of such topics as planning, recruiting, selection, training, supervising, motivation, compensation, benefits, performance appraisals, discipline, and leadership. Prerequisite: BADM 212 or permission.
- BADM 317 Management Information Systems** (4, S11)  
Design, maintenance, monitoring of information systems. Includes systems and audit concepts. Prerequisites: Spreadsheet Competency, ACCT 211, 212.
- BADM 319 Marketing Research** (2, 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.

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**BADM 320 Leadership Development**

(4, S11, S13)

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

**BADM 330 Operations Management**

(4, S12)

Management of processes or systems that create goods or provide services. Includes the basics of forecasting, capacity planning, scheduling, inventory management, total quality management, and supply chain management. Prerequisites: ACCT 212, Quantitative Literacy Competency: Math, Spreadsheet Competency.

**BADM 340 eCommerce**

(2, F11)

A course designed to give you exposure, understanding, and know-how in the ways the Internet is transforming and facilitating key functions of business. Exploration of the organizations that have succeeded and those that have failed. Understanding the eCommerce strategies companies employ. Covers the technological features that make eCommerce both possible and challenging. Implications in computer science, accounting, marketing, human resources, management, finance, economics, and international business.

**BADM 406 Financial Management**

(4, F)

Financial analysis, budgeting, working capital management, capital budgeting, sources of financing, cost of capital. Prerequisite: Spreadsheet Competency, ECON 210, ACCT 211, 212 or permission.

**BADM 421 Internship in Business (P/F)**

(2-6, F, S, or Summer)

Supervised experience in a business firm combining practical activities with integrating studies.

**BADM/ADC 425 Business Ethics**

(3)

Ethics-related aspects of the business decision-making process. Students will address a variety of topics, including theoretical underpinnings of ethics, stakeholders, decision-making strategies, and utilization of such strategies in specific areas such as shareholder and employment relations, marketing, and globalization. The emphases of the course are issue recognition, application of ethical principles, and analysis of the consistency of corporate decision-making process with such principles.

**BADM 431 Security Analysis & Portfolio Management**

(.5-1, F&amp;S)

An advanced investment course in which students that have excelled in business, economics, and/or accounting courses manage a portion of the Houghton College stock portfolio under faculty supervision. By application only. This course may be taken multiple semesters for a maximum of four (4) credit hours toward graduation.

**ADC/BADM 446 Staffing and Performance Management**

(3)

Examination of recruiting, selection, and performance appraisal and an understanding of all facets of performance management including training and development, developing reward systems, performance measurement, equal employment practices, counseling and promotion processes. Discussions will also include strategies to recruit, retain and develop a diverse workforce. Prerequisite: BADM 311.

**BADM/ADC 448 Employee Training and Development**

(3)

An examination of employee training and human resource development in various organizations. Topics include the development, administration, and evaluation of training programs; employee development; career development; and organizational change. Issues in employee development (including assessment of employee competencies, opportunities for learning and growth, and the roles of managers in employee development) are explored. Prerequisite: BADM 311.

**ADC/BADM 449 Employee Relations**

(3)

Survey of the collective bargaining system in the U.S. The development of managerial approaches is provided to achieve labor-management cooperation, negotiations between management and employees' organizations, the nature and significance of collective bargaining, procedures of collective bargaining, bargaining issues, contract administration, current practices and the future directions of unions. Prerequisite: BADM 311.



BADM 460 <b>PHR Review (P/F)</b>	(1, 2, 3, or 4, OD)
Study and review of all areas covered on the PHR (Professional in Human Resources) nationally administered certification exam. Pre/Co-requisite: BADM 314 Human Resources Management.	
BADM 481 <b>Senior Capstone: Business Strategy &amp; Policy</b>	(4, S)
Integrates social responsibility and ethics with instruction in the strategic planning process. Ethical core values act as guidelines for development of organizational plans. (Seniors only, except by permission.) Prerequisite: Spreadsheet Competency.	
BADM 191, 291, 391, 491 <b>Independent Study</b>	(1, 2, 3, or 4)
BADM 295, 395, 495 <b>Special Topics</b>	(1, 2, 3, or 4)
Group study of special topics.	
BADM 496 <b>Honors in Business</b>	

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Chemistry

(majors and minor)

**Department of Chemistry:** Irmgard K. Howard, chair. Keith A. Horn, Associate Dean

**Faculty:** Irmgard K. Howard, Karen E. Torraca, John M. Rowley

**Emeritus Professor:** Larry W. Christensen

**Web site:** [www.houghton.edu/academics/programs/chemistry](http://www.houghton.edu/academics/programs/chemistry)

**Phone:** 585.567.9280

**Major: BS** (35 hours in the major; 8 in prerequisites; 20 in co-requisites)  
 The BS chemistry major is designed for preparation for professional employment or for graduate work.

Prerequisites:	
CHEM 151, 152	General Chemistry I, II ..... 8
Co-requisites:	
PHYS 151, 152	General Physics I, II ..... 8
MATH 180	Calculus and Its Origins or MATH 181 Calculus I ..... 4
MATH 182	Calculus II ..... 4
MATH 241	Differential Equations ..... 4
Required courses:	
CHEM 241, 242	Organic Chemistry I, II ..... 8
CHEM 277	Analytical Chemistry..... 4
CHEM 278	Chemical Instrumentation in Research ..... 4
CHEM 361, 362	Physical Chemistry I, II ..... 8
CHEM 286	Special Topics ..... 2
CHEM 482	Senior Capstone: Chemistry Seminar ..... 1
Additional 8 hours in chemistry selected from courses numbered above 300, including at least one of the following courses:	
CHEM 332	Biochemistry
CHEM 343	Advanced Organic Chemistry
CHEM 453	Advanced Inorganic Chemistry

**Major: BA** (27 hours in the major; 8 in prerequisites; 20 in co-requisites)  
 The BA chemistry major is designed for preparation for medical school (see Pre-Health Professions sections of this catalog) or for secondary education.

Students interested in working toward certification to teach Chemistry at the middle and high school levels

can do so by double-majoring in Chemistry and Adolescence Education (ADE). Please see the Education Department section of this catalog for details.

**Prerequisites:**

CHEM 151, 152 General Chemistry I, II ..... 8

**Co-requisites:**

PHYS 151, 152 General Physics I, II ..... 8

MATH 180 Calculus and Its Origins or  
MATH 181 Calculus I ..... 4

MATH 182 Calculus II ..... 4

MATH 241 Differential Equations ..... 4

**Required courses:**

CHEM 241, 242 Organic Chemistry I, II..... 8

CHEM 277 Analytical Chemistry ..... 4

CHEM 278 Chemical Instrumentation in Research ..... 4

CHEM 361, 362 Physical Chemistry I, II ..... 8

CHEM 286 Special Topics ..... 1

**Minor:** The minor in chemistry consists of any three four-hour CHEM courses (total of 12 hours) numbered in the 200-level or above.

[Biochemistry (CHEM 332) plus Bioanalytical Laboratory (CHEM 334), together, count as a four-hour course.]

## COURSE DESCRIPTIONS

### CHEM 113 **Elements of Biochemistry** (4, OD)

Forms and functions of chemicals in life. Fundamentals of inorganic, organic, and biological chemistry with contemporary applications. 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. 2<sup>nd</sup> Science.

### 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. Lab Science or 2<sup>nd</sup> Science.

### CHEM 152 **General Chemistry II** (4, S)

Continuation of CHEM 151; description and control of chemical reactions (equilibrium, thermodynamics, kinetics, electrochemistry, coordination compounds, nuclear, and organic chemistry). Laboratory designed to illustrate principles developed in lecture. Three lecture, three laboratory hours per week.

### CHEM 187 **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. Does not count for major or minor credit. If taken with CHEM 188, meets lab science. Without CHEM 188, 2<sup>nd</sup> Science. Health and Wellness: Point 1.

### CHEM 188 **Introduction to Nutrition Laboratory** (1, F)

This laboratory is designed to parallel the structure of CHEM 187, demonstrating at a hands-on level the components, concepts, and stewardship of contemporary nutrition. Three lab hours per week. With CHEM 187, Lab Science.

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**CHEM 221 Contemporary Organic Chemistry** (4, OD)  
For pre-nursing, pre-medical technology, BA biology, and general science majors. Fundamentals of organic chemistry; emphasis on structure, reactions, properties of organic molecules. Three lecture, three laboratory hours per week. Prerequisite: CHEM 151 or CHEM 113.

**CHEM 241, 242 Organic Chemistry** (4/4, F/S)  
Modern organic chemistry: relationships between organic molecular structure and chemical reactivity; mechanisms of molecular transformations; synthesis and spectroscopy. Three lecture, four laboratory hours per week. (CHEM 241 must precede 242.) Prerequisite: CHEM 152.

**CHEM 277 Analytical Chemistry** (4, F)  
Principles of gravimetric, volumetric, and electroanalytical methods of analysis. Acid base, precipitation, complexometric, redox titrimetry. Quantitative methods based on absorption of radiation. Statistical treatment of data. Laboratory: analysis of unknown samples. Three lecture, four laboratory hours per week. Prerequisite: CHEM 152.

**CHEM 278 Chemical Instrumentation in Research** (4, S)  
Instrumental methods of analysis. Principles and application of various types of spectroscopy (including UV-VIS, IR, NMR), atomic absorption and emission, mass spectrometry, thermal and electrochemical methods of analysis, etc. Three lecture, four laboratory hours per week. Prerequisite: CHEM 277.

**CHEM 286 Special Topics in Chemistry** (2, F)  
An introduction to areas of chemistry not treated in other courses. Topics have included the following: medicinal, forensic, nutritional, environmental, and clinical chemistries. Consult the department for the topic offered in any given year. Prerequisite: CHEM 241.

**CHEM 332 Biochemistry** (3, S)  
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, S)  
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** (4, F)  
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 352 Physical Principles of Chemistry** (3, OD)  
For students whose major interests lie in medicine, biology or secondary education. A one semester, less mathematically oriented, introduction to physical chemistry offering a core of concepts related to life-processes. Three lecture hours per week. Prerequisite: Chemistry 242.

**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. Prerequisites: PHYS 151, 152; CHEM 151; and either Prerequisite or Co-requisite: MATH 241 or MATH 321.

**CHEM 393 Summer Collaborative Research in Chemistry** (1, 2, 3, or 4, Summer/Mayterm )  
Summer program of doing research in chemistry with a member of the chemistry faculty. Students work individually or together to explore the literature, perform analyses, design and perform syntheses, and report their results orally and in writing. Prerequisite: CHEM 152.

**CHEM 453 Advanced Inorganic Chemistry** (3, OD)  
Theories of atomic and molecular structure, bonding; emphasis on organometallic chemistry; descriptive

- chemistry of the elements; current topics of special importance. Prerequisite: CHEM 277.
- CHEM 480 General Science Seminar** (1, S)  
Written thesis and oral presentation on a topic selected for interdisciplinary breadth describing current scientific research in the area of the student's concentration, based on a thorough review of scientific literature.
- CHEM 482 Senior Capstone: Chemistry Seminar** (1, S)  
Journal reports and discussion of recent developments in chemistry. Required of all chemistry majors.
- CHEM 291, 292, 391, 392; 491, 492 Research in Chemistry** (1-4, OD)
- CHEM 496 Honors in Chemistry** (4)  
A special individual research project, completed in a chemistry-major's senior year, resulting in a publishable undergraduate thesis.

# Christian Formation

(major, minors, and youth ministries concentration)

**Department of Theology:** Kristina LaCelle-Peterson, chair. W. Christopher Stewart, Associate Dean

**Faculty:** Jonathan Case, Richard K. Eckley, Kristina LaCelle-Peterson, Terence P. Paige, Carl Schultz, Paul W. Shea, Kulli Tõniste, J. Michael Walters

**Web site:** [www.houghton.edu/academics/programs/religion-philosophy](http://www.houghton.edu/academics/programs/religion-philosophy)

**Phone:** 585.567.9460

**Major: BS** (49-54 hours)

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

12-16 hours in Christian Formation:

CRFM 231	Foundations of Educational Ministry .....	2
4 hours chosen from:		
	CRFM 331 Christian Formation of Children .....	2
	CRFM 332 Christian Formation of Youth .....	2
	CRFM 333 Christian Formation of Adults .....	2
CRFM 442	Internship in Christian Formation.....	4-8
CRFM 482	Senior Capstone: Seminar in Christian Formation.....	2
12 hours in Bible:		
BIBL 221	Biblical Interpretation .....	4
	Two Bible electives .....	8
6 hours in ministry:		
MIN 210	Introduction to Christian Ministries.....	2
MIN 317	Leadership in the Church .....	4
4 hours in Bible Teaching Proficiencies:		
CRFM 325	Bible Study and Teaching Methods.....	2
GREK 111	Fundamentals of Biblical Greek <b>or</b> .....	
HEBR 111	Fundamentals of Biblical Hebrew.....	2
8 hours in theology		
THEL 313	Systematic Theology.....	4
THEL 320	Spiritual Formation.....	4
4 hours in family studies chosen from:		
THEL 337	Theological Foundations of the Family .....	4

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PSY 426	Family Systems Theory.....	4
SOC 237	Introduction to Marriage & Family Studies.....	4
3-4 hours in urban ministry chosen from:		
URMN 212	Urban Ministry.....	4
URMN 250	Evangelism & Social Action in the Urban Context .....	3

### Youth Ministries Concentration (12 hours)

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

CRFM 350	Foundations of Youth Ministry.....	2
CRFM 332	Christian Formation of Youth.....	2
PSY 217	Adolescent and Emerging Adult.....	4
CRFM 341, 342	Theological Exploration: Youth Culture I & II (2,2) <b>or</b>	
THEL 300	Christianity & Post-Modernism.....	4

### Contract Minor: (14-16 hrs arranged with the Christian Formation advisor)

The following courses are required:

CRFM 325	Bible Study and Teaching Methods.....	2
MIN 210	Introduction to Christian Ministries.....	2
THEL 313	Systematic Theology.....	4

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

1. Christian Formation core (except CRFM 442)
2. Youth
3. Missions
4. Urban Ministry
5. Sports Ministry

**Sports Ministry Minor:** (minimum 16 hours, interdisciplinary) – See Sports Ministry entry.

## COURSE DESCRIPTIONS

**CRFM 231 Foundations of Educational Ministry** (2, F11)  
Historical, philosophical, and theological developments of religious and Christian education in relation to the practice of ministry.

**CRFM/PHED 227 Sports Ministry: The Integration of Faith and Sport** (4, S11)  
Students will develop an understanding of the sports culture and how the gospel can be effectively communicated within this context. They will consider sociological factors, historic developments and the Biblical text in order to build a theological foundation for the practice of sports ministry. Church and para-church organizations will be examined as well as evangelism and discipleship methodologies. Students will practice communication skills within sports ministry settings.

**CRFM/PHED 275 Methods & Administration of Sports Ministry** (2,S12)  
Students will evaluate sports ministry strategies within local church, parachurch, mission and educational settings. They will review and develop curriculum and programs for use within these settings. Students will develop communication skills for a sports audience and will examine evangelism and discipleship methods.

**CRFM 325 Bible Study and Teaching Methods** (2, F)  
Survey of methods of Bible study and approaches to teaching/learning. Emphasizes: lesson design, planning and presentation, small group leadership, curricula.

**CRFM 350 Foundations of Youth Ministry** (2, S12)  
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.

**CRFM 331 Christian Formation of Children** (2,F11)  
To gain an understanding of the process of faith formation during childhood and to examine effective meth-

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ods for fostering this formation, both in and around the faith community.

**CRFM 332 Christian Formation of Youth** (2,S12)  
An examination of the theory and practice behind guiding the spiritual lives of adolescents, with particular emphasis upon the evangelistic and nurturing (discipling) tasks. Time-tested and innovative practices of adolescent spirituality will be covered. An overview of adolescent culture will be given, aimed at enabling spiritual directors of youth to understand some of the unique elements of enabling the faith journeys of young people.

**CRFM 333 Christian Formation of Adults** (2, F11)  
To gain an understanding of the process of adult faith formation in the various adult phases of life (young, middle, older) and to examine effective methods for fostering this formation, both in and around the faith community.

**CRFM 341 Theological Explorations in Youth Cultures and Ministry I** (2, F10)  
A theological investigation into the religious and spiritual life of American youth, with special reference to the contexts of family, peer relationships, school and church. This course asks questions of the order: 'What does the religious and spiritual landscape of American young people in early 21<sup>st</sup> century look like? How do young people relate to organized religion? How is the current interest in spirituality related to the search for meaning in their lives? What connections do young people make between religion or spirituality and social concerns? How can this religious and spiritual interest and impetus be theologically engaged from a Christian perspective, with a view to effective youth ministry?

**CRFM 342 Theological Explorations in Youth Cultures and Ministry II** (2, F10)  
Helps students develop the skills to critically engage, from a Christian theological perspective, popular culture 'texts' (e.g., films, television shows, music) and trends (e.g., networked publics, body modification), with a view to effective youth ministry.

**GREK 111 Fundamentals of Biblical Greek** (2, S11)  
Basics of the Greek language; enables better use of reference materials and facilitates research or personal study. Covers alphabet, some morphology and syntax concepts, and familiarizes the student with exegetical resources.

**HEBR 111 Fundamentals of Biblical Hebrew** (2, S12)  
A study *about* biblical Hebrew, rather than teaching biblical Hebrew. Seeks to introduce basic language comprehension so one may use commentaries, wordbooks, lexicons, and computer biblical research programs that use Hebrew.

**CRFM 442 Internship in Christian Formation** (4, F/S)  
Supervised field experience in a church or para-church agency combining academic work with practical and professional responsibilities and relationships. Prerequisites: MIN 210, EDMN 325, and 330 or permission of the educational ministries advisor.

**CRFM 482 Senior Capstone: Senior Seminar in Christian Formation** (2, S)  
A senior capstone colloquium required of all students with a major in Religion or Christian Formation.

**CRFM 191, -2; 291, -2; 391, -2; 491, -2 Independent Study** (1, 2, 3 or 4)

**CRFM 496 Honors in Christian Formation** (4, S)

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## Christian Ministries (AAS) (Also, see ministry)

**Department of Theology:** Kristina LaCelle-Peterson, chair. W. Christopher Stewart, Associate Dean

**Faculty:** Under the direction of the department chair

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

The curriculum consists of 22 hours in integrative studies requirements, 26 hours in required religion courses, and a 12- to 16-hour concentration. Choose from Communication/Writing, Humanities, Religion (Bible, Christian Formation, Missions, and Ministerial) or social science. Additional credit hours to total 62 will consist of electives.

Integrative studies requirements:

BIBL 101	Biblical Literature (or Advanced Bible if qualified) .....	4
WRIT 101	Writing in the Liberal Arts .....	4
	Math or Science .....	3-4
	Philosophy .....	4
THEL 209	Introduction to Christianity .....	4

Two or three more hours in Integrative Studies to total 22 hours (suggested courses in History or Social Science)

Major requirements:

BIBL 221	Biblical Interpretation .....	4
	Old Testament Bible ( <i>Pentateuch preferred</i> ) .....	4
	New Testament Bible ( <i>Jesus &amp; the Gospels preferred</i> ) .....	4
	Missions .....	4
MIN 210	Introduction to Christian Ministry .....	2
CRFM 231	Foundations of Educational Ministry .....	2
CRFM 325	Bible Study and Teaching Methods .....	2
	Internship .....	2, 2

(See respective course descriptions in Bible, Missions, and Christian Formation.)

COURSE DESCRIPTION

CHMN 251, 252 **Internship** (2/2, F/S/M)  
A field experience in a church or a church-related organization during the student's second year or during Mayterm.

Communication (major and minor)

**Department of Communication:** Douglas M. Gaerte, chair. James F. Wardwell, Associate Dean

**Faculty:** Douglas M. Gaerte, David M. Huth, Daniel C. Minchen, Ryan Thompson

**Web site:** [www.houghton.edu/academics/programs/communication](http://www.houghton.edu/academics/programs/communication)

**Phone:** 585.567.9670

**Major:** 33 - 40 hours

Whether one seeks a career in broadcasting, journalism, public relations, advertising, government service, community development, law, business, teaching, or the ministry, the ability to communicate is essential. The communication major is an interdisciplinary program focusing on helping students become competent communicators. This involves the ability to analyze messages in both personal and public contexts, to recognize and choose among the various communication strategies that are available, and to use language and images to create messages that are sensitive to the audience and that help to solve real world problems.

**Pre-requisites:**

COMM 101	Presentational Speaking .....	2
(Also satisfies the Integrated Studies Community: Communication requirement)		

**Required courses:** .....

COMM 205	Introduction to Communication Theory .....	4
COMM 214	Introduction to Mass Media .....	4
COMM 215	Interpersonal Communication .....	4

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COMM 216	Organizational Communication .....	4
COMM 417	Seminar in Public Communication .....	4

**In addition to the required courses, students will select a five course concentration in one of the following areas:**

- Integrated Marketing Communication
- Rhetorical Communication
- Media Arts and Visual Communication

### **1. Concentration in Integrated Marketing Communication**

The concentration in Integrated Marketing Communication builds on basic core courses to develop a defined competence in the communication components of marketing. These components include advertising, public relations, marketing events such as trade shows, direct mail or other forms of one-to-one communication, and web-based or electronic initiatives. The focus of this concentration is to enable students to enter profit or not-for-profit businesses or organizations and assume a role in a marketing or promotions department with the ability to understand, manage and implement an expected set of professional tasks.

#### **Required Courses (3)**

COMM 312	Advertising Principles
COMM 313	Public Relations Principles
COMM 218	Marketing Principles (also listed as BADM 218)

#### **Elective Courses (2) chosen from:**

BADM 212	Principles of Management
ART 245	Graphic Design I
COMM 232	Introduction to Web Communication
COMM 284	Introduction to Digital Imaging
COMM 295, 395	Special Topics
COMM 353	Communication Internship
WRIT 214	Literary Non-Fiction
WRIT 312	Creative Writing in Public Life

### **2. Concentration in Rhetorical Communication:**

For more than 2,000 years the study of communication was the study of rhetoric. The rhetorical communication concentration at Houghton helps students connect to the historical roots of communication study while bringing the conversation up-to-date with the application of rhetorical theory to current forms of delivering messages. Central to the study of rhetoric is the notion of civic engagement. In a democracy, the opportunity for people to express themselves, to present arguments, to engage in debate, and to praise and blame is critical to the orderly functioning of society. The rhetorical communication concentration is designed to help students construct effective and ethically responsible messages appropriate to scholar-servants. In the church, the workplace, and the community, such speakers play a critical role in creating solutions to problems, defending the rights of the oppressed, and improving the lives of fellow humans. The study of rhetoric also helps students become more discerning consumers of messages. This concentration is especially applicable to those students interested in law, politics, and the ministry.

#### **Required Course**

COMM 316	Advanced Presentational Speaking
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#### **Elective Courses (4) chosen from:**

COMM 318	Rhetorical Theory
COMM 319	American Public Address
COMM 244	Oral Performance of Literature
COMM 295, 395	Special Topics
COMM 353	Communication Internship
MIN 324	Principles of Expository Preaching
WRIT 214	Literary Non-Fiction
WRIT 312	Creative Writing in Public Life

### **3. Concentration in Media Arts and Visual Communication:**



This concentration focuses on visual media-making, with many classes devoted to creative studio work. To make visual media that is effective, creative, and ethical, critical analysis and cross-disciplinary connections are essential. This concentration is a unique combination of media theory, critical analysis, and cultural application combined with practical creative work focusing on digital media tools. This includes new forms of creation, distribution, and social engagement outside of traditional structures. Independent cinema, Internet and interactive media, support for non-profit organizations, alternative political or social speech, media and performance art, documentary from a personal viewpoint, and storytelling/folklore are areas where students can apply their knowledge and skills.

**Required Courses (2)**

COMM 224	Time, Motion, and Communication
COMM 284	Introduction to Digital Imaging

**Elective Courses (3) chosen from:**

COMM 207	Introduction to Pro Tools
COMM 228	Digital Video I
COMM 328	Digital Video II
COMM 226	Personal Media
COMM 232	Introduction to Web Communication
COMM 384	Digital Imaging II
COMM 410	Media Arts: Advanced Projects
ART 245	Graphic Design I
ART 314	Art and History of Film
COMM 295, 395	Special Topics
COMM 353	Communication Internship
WRIT 214	Literary Non-Fiction
WRIT 304	Screenwriting

**Communication Studies Major (no concentration)**

A student may complete a communication major without selecting a specific concentration. After consulting with his or her advisor and developing a specific coherent academic plan, a student would complete the five courses from the core requirements and five elective courses chosen from the department.

**Communication Minor - 4 courses (14-16 hours):**

COMM 205	Intro to Communication Theory plus 3 additional courses with the COMM prefix.
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**Communication Minor: Theater Emphasis (16 hours)**

This minor 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 Communication Department chair. Required courses are Presentational Speaking (COMM 101) (prerequisite), Oral Performance of Literature (COMM 244), Theater Arts (COMM 245), Modern and Contemporary Drama (ENGL 315) and Shakespeare (ENGL 350). Strongly recommended in addition to the above is an individualized project (such as assistant director of a college production) listed under Theater Workshop (COMM 246) or Independent Study (COMM 291). *Note: Only eight hours of Theater Workshop may count toward graduation.*

**COURSE DESCRIPTIONS**

**COMM 101 Presentational Speaking (2, F&S)**

Studies in the basic concepts of effective communication. Emphases on oral presentation skills, organization of information, use of evidence, and audience analysis. Deliver demonstrative, informational, and persuasive speeches. Community – Communication.

**COMM 205 Introduction to Communication Theory (4, S)**

This course provides a foundation for subsequent communication courses by introducing the major theories

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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. Community- Communication.

**COMM 207 Introduction to Pro Tools** (3, F)  
Introduction to Pro Tools sound & recording software. Foundational skills necessary to record, edit, and mix at basic level using a Digidesign Pro Tools system. Focus: fundamental tools and techniques through demonstrations, real-world examples, and frequent hands-on assignments. Successful completion prepares student to undertake Pro Tools 101 Digidesign Certification exam. By permission of instructor.

**COMM 208 Essential Pro Tools** (3, S)  
Continued study of Pro Tools: expanding range of tools and techniques. Focus: expanded hardware and software configurations, developing versatile tools for manipulating and editing both audio and MIDI data, and implementing various techniques to facilitate larger and more sophisticated mixing scenarios, again through real-world examples and frequent hands-on assignments that will enhance your capabilities in all aspects of Pro Tools production. Successful completion prepares student to undertake Pro Tools 110 DigiDesign Certification exam. Prerequisite: COMM 207.

**COMM 214 Introduction to Mass Media** (4, F)  
Overview of the mass communication process and its application to mass media. Considers history, technological development, social implications, business functions, and legal aspects of mass media. Community – Communication.

**COMM 215 Interpersonal Communication** (4, 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. Community – Communication.

**COMM 216 Organizational Communication** (4, 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. Community - Communication.

**COMM 218 Marketing Principles** (4, F&S)  
(See course description under BADM 218)

**COMM/ART 224 Time, Motion, and Communication** (4, F)  
This course is an introduction to the foundational concepts of communications design in which time is an important formal element. Studio work will explore ways that images and design change over time in ways that enhance narrative or interactive communication: time and motion explored as formal properties; history of time-based communication and interactivity; extensive studio work developing key concepts in time and communication. This course has a lab fee.

**COMM 225 Intercultural Communication** (4, F)  
Explores theory and practice of communicating interculturally. Recommended for those with an interest in international vocations, or working with ethnic or cultural groups within the United States.

**COMM 226 Personal Media** (4, OD)  
This course is an introduction to the changing landscape of emergent, person-based media using lightweight, networkable digital tools. Blogs, vlogs, and other forms of online communication are examined in view of their technological and cultural impact. Student projects focus on individual expression and information, moving quickly to grass roots documentation, advocacy media, and community-based journalism and storytelling. This course has a lab fee.

**COMM/ART 228 Digital Video I** (4, S)  
This course is an introduction to the movie-making process using digital tools. Students will learn the basics of managing digital workflow and software interface, using a digital video camera, editing in Final Cut Pro, and saving final output to DVD. Also covered are basic principles of storytelling, location production, integration of titles and audio, critique and production skills, and output and archiving. This course has a lab fee.

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**COMM 232 Introduction to Web Communication****(4, F)**

This course is an introduction to the design, hosting, and maintenance of Web pages. Foundational concepts of composition and design, use of color, multimedia, accessibility, and good user interface design are covered in a project-based studio. Suitable for any major and discipline, with an emphasis on projects useful to communication majors (online Web gallery, portfolio, video, blogging, etc.) This course has a lab fee.

**COMM 244 Oral Performance of Literature****(4, F10, 12)**

Emphasis on the selection and analysis of literary texts in preparation for presentation in both traditional oral interpretation and Readers Theater formats. Development of vocal and physical skills for reading texts in a variety of literary styles, including prose, poetry, scripture, drama, and children's lit. Community – Communication.

**COMM 245 Theatre Arts****(4, OD)**

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, OD)**

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 eight hours.

**COMM 284 Introduction to Digital Imaging****(4, F&S)**

This course is an introduction to the tools and concepts of creating and manipulating images with digital technology. It introduces students to compositing, drawing tools, digital photography, and basic filters, and covers the basics to intermediate techniques. The primary software application is Adobe Photoshop. Instruction is project based and relies on class critique. Students also learn to recognize digital equivalents of traditional art styles, techniques, and forms. This course has a lab fee.

**COMM 312 Advertising Principles****(2, S)**

Overview of the advertising field and how it functions in society. Studies research, strategies, methods, creativity, and media planning. Typically includes case study.

**COMM 313 Public Relations Principles****(4, F)**

Brief overview of the public relations field and how it functions in society. This course focuses on public relations as a communication management function and proceeds to study research, strategies, methods, and relationships with various publics.

**COMM 316 Advanced Presentational Speaking****(2, F10, 12)**

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

**COMM 318 Rhetorical Theory****(4, OD)**

This course provides an historical survey of the various theories of rhetoric – that is, the art of persuasive discourse – as they developed in the western world. The course begins with the classical theories of rhetoric that emerged in Greece and Rome, continuing with an examination of the theories that developed during the medieval, renaissance, and modern periods. The course concludes with an examination of contemporary rhetorical theories that have shaped our current understanding of rhetoric and its continuing role in our mediated culture.

**COMM 319 American Public Address****(4, F11)**

This course studies the public discourse of political speeches and popular culture from the colonial era to the present. A careful analysis of speech texts and the historical contexts in which they were delivered will help students become more careful consumers of public messages, will build critical skills, will improve understanding of key issues in American history and how those issues were debated, and will increase appreciation for the importance of rhetoric in a democratic society. Community – Communication.

**COMM 328 Digital Video II****(4, OD)**

This course is a continuation of DV I, intended to expand upon the skills and techniques introduced in

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DV I, and adding more advanced editing techniques to the student's skill set. Techniques such as multi-camera production, compositing, green screen, and videoblogging are introduced. Students are encouraged to prepare film festival submissions. The course presents an outline of cinematic communication history. This course has a lab fee.

**COMM 330 Conflict Management** (4, S)

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

**COMM 353 Communication Internship** (1-4, F, S, Summer)

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

**COMM 384 Digital Imaging II** (4, OD)

Advanced techniques in compositing, painting, graphics, and content expression using 2D digital computer software such as Adobe Photoshop. Creative studio lab work will focus on individual and collaborative digital imaging projects, for print or electronic distribution. Coursework conceptualizes the image as a powerful artistic and communication mode of discourse. Presentations, demonstrations, and intensive group critiques offer a chance for students wishing to pursue more advanced skills in using the computer as an expressive imaging tool. Pre-requisite: COMM 284 Introduction to Digital Imaging. This course has a lab fee.

**COMM 410 Media Arts: Advanced Projects** (4, OD)

This is a single-project course tailored to the individual interests, vision and production decisions of the student. The course is adapted for individual mentoring and one-to-one faculty-student interaction. Project-based instruction explores the advanced needs of a student while honing digital production and editing skills. Features of the course include single short production, extensive group critiques, field trips and guest lectures, study of advanced motion graphics, and discussion of career applications. This course has a lab fee.

**COMM 417 Senior Capstone: Seminar in Public Communication** (4, S)

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

**COMM 295, 395 Special Topics in Communication: Lecture-Based or Studio-Based** (2 - 4, F&S)

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

**COMM 291, -2, 391, -2, 491, -2 Independent Study** (1 - 4, F&S)

**COMM 496 Honors in Communication** (4, S)

**Courses listed under other departments and counted for communication:**

**ART 245 Graphic Design I** (4, F&S)  
(See course description under art major.)

**ART 314 The Art and History of Film** (4, S11)  
(See course description under art major.)

**BADM 212 Principles of Management** (4, F&S)  
(See course description under business administration major.)

**MIN 324 Principles of Expository Preaching** (4, S)  
(See course description under religion major.)

**WRIT 214 Literary Non-Fiction** (4, F&S)  
(See course description under writing major.)

WRIT 304 <b>Screenwriting</b> (See course description under writing major.)	(4, S11)
WRIT 312 <b>Creative Writing in Public Life</b> (See course description under writing major.)	(4, S11)

# Computational Physics (major)

**Department of Physics and Earth Science:** Mark E. Yuly, chair. Keith A. Horn, Associate Dean

**Faculty:** Donell Brandon Hoffman, Mark E. Yuly, Christopher M. Wells

**Web site:** [www.houghton.edu/academics/programs/physics/](http://www.houghton.edu/academics/programs/physics/)

**Phone:** 585.567.9280

**Computational Physics Major: BS (35 hours in major; 16 in prerequisites; 12 in co-requisites)**

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

The requirements for the computational physics major are as follows:

Prerequisites (16):		
PHYS 151, 152	General Physics I, II .....	8
MATH 180	Calculus and Its Origins or	
MATH 181	Calculus I .....	4
MATH 182	Calculus II .....	4
Co-requisites (12):		
MATH 241	Differential Equations .....	4
MATH 321	Multivariate Calculus .....	4
MATH 261	Linear Algebra .....	4
Required (35) which must include:		
PHYS 251	Mechanics I .....	4
PHYS 212	Modern Physics .....	4
PHYS 353	Electricity and Magnetism I.....	4
PHYS 355	Thermal Physics .....	4
PHYS 471, 472	Physics Project Lab .....	2
PHYS 482	Senior Capstone: Physics Seminar .....	1
CSCI 211	Programming I .....	4
CSCI 218	Programming II .....	4
CSCI 236	Data Structures and Algorithms .....	4
MATH 331	Numerical Analysis .....	4
Additional recommended supporting courses include:		
PHYS 258	Analog Electronics .....	4
PHYS 259	Digital Electronics .....	4
CSCI 226	Computer Architecture .....	4
CSCI 245	Software Engineering .....	4

COURSE DESCRIPTIONS

See Mathematics, Physics and Computer Science sections.

Computer Science

(major and minor)

Department of Mathematics and Computer Science:

Kristin A. Camenga, chair.

Keith A. Horn, Associate Dean

Faculty:

Wei Hu

Web site:

www.houghton.edu/academics/programs/math-computer-science

Phone:

585.567.9280

Major:

52 hours (44 in major, 8 in pre/co-requisites)

Pre/co-requisites:

MATH 180

Calculus and Its Origins or

MATH 181

Calculus I

4

MATH 182

Calculus II

4

Computer Science Major:

44 hours

Major courses:

CSCI 211

Programming I

4

CSCI 218

Programming II

4

CSCI 236

Data Structures and Algorithms

4

CSCI 226

Computer Architecture

4

CSCI 336

Programming III

4

CSCI 340

Data Bases

4

CSCI 420

Networking

4

CSCI 480

Senior Capstone: Senior Seminar

4

Three elective CSCI courses

12

Total hours:

44

The co-requisite is Calculus II.

Calculus and Its Origins or Calculus I is a prerequisite.

Minor in Computer Science:

16 hours

Required courses:

CSCI 211

Programming I

4

CSCI 218

Programming II

4

CSCI 226

Computer Architecture

4

CSCI 236

Data Structures and Algorithms

4

Total hours:

16

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 who plan to create the technology of tomorrow whether in the pursuit of graduate study or in information management leadership positions in business, industry, or government. This major provides the flexibility to be tailored to the student’s particular career interests. The Senior Project provides an opportunity to gain valuable pre-graduation experience while working with current computer theories and applications. It is this flexibility and the broad exposure to computer concepts, together with a liberal arts education, that has been appreciated by and will continue to appeal to employers of computer professionals.

COURSE DESCRIPTIONS

CSCI 115 Perspectives on Computing

(4, S)

An overview of how computers process, transmit, and store information. Designed for the non-major and includes many applications and issues found in contemporary culture. For example, privacy issues related to databases maintained by insurance companies or protection of intellectual property in light of increasingly popular file sharing applications. There are no prerequisites. This does not count toward a major or minor in computer science.

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**CSCI 211 Programming I**

(4, F)

This course covers the fundamentals of object-oriented programming utilizing the Java programming language. This first programming course provides students with basic Java programming concepts, data types, operators, flow control statements, objects, classes, methods, arrays, strings, applications, applets, and graphics user interfaces. 2nd Science.

**CSCI/MATH 214 Discrete Mathematics**

(2, F11)

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

**CSCI 218 Programming II**

(4, S)

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

**CSCI 226 Computer Architecture**

(4, S12)

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

**CSCI 236 Data Structures and Algorithms**

(4, F)

This course covers the fundamental data structures of computer science and accompanying algorithms. Linked Lists, Stacks, Queues, Binary Trees, Priority Queues, Heaps and other ADTs will be included. Classical sorting and searching algorithms will be learned and implemented. Prerequisite: CSCI 218.

**CSCI 245 Software Engineering**

(4, OD)

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

**CSCI 326 Operating Systems**

(4, F10)

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

**CSCI 328 Foundations of Computing**

(4, F10)

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

**CSCI 331 Web Programming**

(4, OD)

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

**CSCI 336 Programming III**

(4, F11, F13)

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

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**CSCI 340 Databases**

(4, S11, S13)

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

**CSCI 344 Enterprise Application Integration**

(4, OD)

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

**CSCI 393 Summer Collaborative Research in Computer Science**

(1-4, Summer)

Students work individually or in small teams reviewing literature, solving challenging problems in biology using machine learning and data mining algorithms and techniques from computer science, and describing their work in written form. The course focuses on interdisciplinary research which covers mathematics, statistics, computer science, and computational biology. May be repeated for credit. Prerequisite: Permission from instructor.

**CSCI 420 Networking**

(4, S11, S13)

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

**CSCI 428 IT Architectures**

(4, OD)

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

**CSCI 480 Senior Capstone: Computer Science Seminar**

(4, S)

For seniors, except by permission. Required of all computer science majors.

**CSCI 490 Senior Project**

(4, OD)

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, 3 or 4)

**CSCI 295, -6; 395, -6; 495 Special Topics in Computer Science**

(1, 2, 3 or 4 OD)

Previous topics include: wireless Java; Java message service; wavelets; neural networks; C#; and NET.

**CSCI 496 Honors in Computer Science**

(4)



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# Earth Science (concentration in General Science)

**Department of Physics and Earth Science:** Mark E. Yuly, chair. Keith A. Horn, Associate Dean

**Faculty:** Donell Brandon Hoffman, Mark E. Yuly

**Web site:** [www.houghton.edu/academics/programs/physics](http://www.houghton.edu/academics/programs/physics)

**Phone:** 585.567.9280

## General Information

Courses support current environmental and space interests, and lead to the concentration required for a general science major. General science majors are required to take Physical Geology (ESCI 101) and another four-hour Earth Science course or General Astronomy (PHYS 102); an Earth Science concentration in General Science is fulfilled by adding eight more hours, including independent study.

## COURSE DESCRIPTIONS

**ESCI 101 Physical Geology** (4, S12)

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. Lab Science or 2<sup>nd</sup> Science.

**ESCI 212 Environmental Earth Science** (4, OD)

Relationship between humans and Earth systems in the atmosphere, hydrosphere, lithosphere. Environmental problem solving. The laboratory will focus on applications of GIS and GPS to environmental and earth science problems. Three lecture, three laboratory hours each week. Lab Science or 2<sup>nd</sup> Science.

**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** (4, OD)

A study of the properties and circulation of water on the surface of the land, underground and in the atmosphere. Topics to be covered include fluid mechanics, groundwater, wastewater, and environmental concerns. An engineering perspective will be used. Three lecture, three laboratory hours each week.

**ESCI 291, 292, 391, 392, 491, 492 Independent Study** (1, 2, 3 or 4)

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

**ESCI 480 Senior Capstone: General Science Seminar** (1, S)

Written thesis and oral presentation on a topic selected for interdisciplinary breadth describing current scientific research in the area of the student's concentration, based on a thorough review of scientific literature.

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# Economics (minor)

**Department of Business and Economics:** Kenneth J. Bates, chair. Paul D. Young, Associate Dean

**Faculty:** Robert A. Black

**Web site:** [www.houghton.edu/academics/programs/business](http://www.houghton.edu/academics/programs/business)

**E-mail:** [business@houghton.edu](mailto:business@houghton.edu)

**Phone:** 585.567.9440

**Mission:** To develop a student's ability to think clearly about economic cause and effect and to apply economic theories, models, concepts, and analytical methods to real-world problems with a view toward equipping them to serve in fields such as management, finance, international relations, government, law, education, and

history. Economics courses at Houghton intentionally consider a Christian world view and its interaction with economic concepts, methods, and policies.

**Minor:** (14 hours)

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

Minor required courses:

ECON 201	Introduction to Economics .....	2
ECON 210, 211	Principles of Micro and Macroeconomics .....	2, 2
Additional hours from list below numbered 200 or above .....		8

**COURSE DESCRIPTIONS**

**ECON 201 Introduction to Economics** (2, F&S)

Economic behavior, economic method, and economic systems. Reviews basic concepts of scarcity, opportunity cost, economic efficiency. Introduces models of production possibilities, demand and supply, and more briefly aggregate demand and supply, and the circular flow. Discusses faith and morality as compared to economic thinking. Introduces ideas about globalization, political economy, economic systems, and financial markets. Prerequisite to all other economics courses. Plus ECON 211-214 or 237 satisfies Community: Economics.

**ECON 210 Principles of Microeconomics** (2, F)

Scarcity, economic method, demand and supply, elasticity, consumer and producer theory, models of product market structure, economic institutions, and selected topics on faith integration, economics & ethics, economic systems & perspectives, public economics. Prerequisite: ECON 201. Plus ECON 201 satisfies Community: Economics.

**ECON 211 Principles of Macroeconomics** (2, 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 201. Plus ECON 201 satisfies Community: Economics.

**ECON 212 International Economics** (2, S11, S13)

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 201. Plus ECON 201 satisfies Community: Economics.

**ECON 213 American Economic History I: Colonial Era to 1865** (2, F11, F13)

History of U.S. economy to the Civil War, with special emphasis on the European background, early settlements, British rule, costs and benefits of the Revolutionary War, economic aspects of the Constitution, the early national period, Northern industrialization versus Southern agriculture for export, slavery, and costs and benefits of the Civil War. Covers economic progress and crises in finance, trade, industry, agriculture, labor markets, land use, law and government. Prereq: ECON 201. Plus ECON 201 satisfies Community: Economics.

**ECON 214 American Economic History II: 1865 to Present** (2, F10, F12)

History of U.S. economy after the Civil War, to the present, with special emphasis on industrialization, World Wars I and II, and the Great Depression. Covers economic progress and crises in finance, trade, industry, agriculture, labor markets, and government. Prerequisite: ECON 201. Plus ECON 201 satisfies Community: Economics.

**ECON 237 Comparative Economic Systems** (2, S12, S14)

Examination of alternative economic systems; compare U.S. economic system with other economies along the capitalist-socialist spectrum; describes the institutional bases for such comparisons. Prerequisite: ECON 201. Plus ECON 201 satisfies Community: Economics.

**ECON 301 Money and Banking** (2, S)

Role of money and financial institutions in a market economy, interest rates, bond markets, money market,

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yield curve, risk premium, economic principles of bank management, financial regulation, Federal Reserve System influence on banking system. Prerequisite: ECON 210 and 211.

**ECON 309 Statistics** (4, F)

Descriptive and inferential statistics: Measures of central tendency and variability, discrete and continuous probability functions, sampling, estimation, hypothesis testing, correlation, regression, Chi Squared, ANOVA. (Also listed in BADM, PSY, SOC) Prerequisite: Spreadsheet Competency. Quantitative Literacy Competency: Math.

**ECON 310 Intermediate Microeconomics** (1, OD)

Short introduction to primary models of consumer and producer behavior, especially indifference analysis of budget optimization and isocost-isoquant analysis of production. Prerequisite: ECON 210 and 211.

**ECON 311 Intermediate Macroeconomics** (1, OD)

Short introduction to primary models of macroeconomics, especially the IS-LM model, the consumption function, and the investment function. Prerequisite: ECON 210 and 211.

**ECON 315 Economics of Organization and Strategy** (2, OD)

Theories of the firm with applications to management and business ethics; the firm in competition and in the macro and international environments. Emphasis on adapting to changing environments; economics of business strategy and the firm's organization, with emphasis on sources of profitability, applications of game theory, and adapting organization to setting. Prerequisite: ECON 210, 211.

**ECON 316 Managerial Economics** (2, OD)

Theories of the firm especially regarding to optimal decision making and decision making under risk with applications to insurance and investment; consumer behavior and forecasting demand; basics of efficient production management, personnel economics, and price determination. Prerequisite: ECON 210, 211.

**ECON 322 Economic Research Seminar** (1, 2, or 3, OD)

Research and writing course for students who wish to pursue further work in economics. Students must have had at least two hours of a previous economics course to take one hour of Seminar, at least 4 hours of previous courses to take 2 hours of seminar, and at least 6 previous hours to take 3 hours of seminar. Topics for study must be approved by instructor.

**ECON 401 Monetary Theory and Policy** (2, S)

Development of U.S. monetary system and the Federal Reserve System, money creation process, financial regulation and deregulation, financial innovation, monetary effects on the macro economy, Federal Reserve policy (especially FOMC), exchange rates. Prerequisites: ECON 210, 211.

**ECON 191, -2; 291, -2; 391, -2; 491, -2 Independent Study** (1, 2, 3 or 4)

**ECON 295, 395, 495 Special Topics** (1-4, OD)

Group study of selected topics.

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# Education (majors and minor)

**Department of Education:** Cathy E. Freytag, chair and Associate Dean

**Faculty:** Jan K. Buckwalter, Patrick L. Buckwalter, Constance R. Finney, Cathy E. Freytag, Alyn A. Kay, Mark LaCelle-Peterson (on leave 2010-2011), Susan G. Martin, Charles E. Massey, Timothy J. Nichols (interim), Sunshine R. Sullivan.

**Web site:** [www.houghton.edu/academics/programs/education](http://www.houghton.edu/academics/programs/education)

**Phone:** 585.567.9670

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**Majors:** Adolescence Education (leading to certification to teach grades seven to 12 in a specific content area) 44 hours in the major.

Inclusive Childhood Education (leading to certification to teach grades one to six, for general education and the education of students with disabilities) 58 hours in the major; four hours in pre/co-requisi

TESOL (leading to certification to teach English to speakers of other languages in grades K to 12) 50 hours in the major.

Physical-Health Education (leading to dual certification in physical education and health education in grades K to 12) 65-68 hours in major; 24 hours in education. (Please see *Physical Education* section of the catalog.)

Physical Education (leading to certification to teach physical education in grades K to 12) 36.5 hours in the major; 11.5 hours in activities; 29 in education; 4 hours in pre/co-requisites. (Please see *Physical Education* section of the catalog.)

Music Education (leading to certification to teach music in grades K to 12) varied hours depending upon the track chosen. (Please see the *Music* section of the catalog.)

### General Information

In the spring semester of 2009, a total of 257 students were enrolled in Education Department majors: 60 in Adolescence Education, 9 in TESOL, 110 in Inclusive Childhood Education (ICE), 20 in Physical Education and 58 in Music Education. In the fall of 2009 the new Physical-Health Education major was added with 7 majors.

Admission to the Houghton College Teacher Education Program is by application, and continuation in the program requires meeting the standards outlined below. The Teacher Education Committee takes into account each candidate's prospects for successful completion of courses and field placement requirements in its decisions. Preparing to become a teacher involves more than academic preparation in the college classroom. Part of the process of becoming an effective educator includes cultivating professional behaviors, attitudes and dispositions that are expected of professionals in this field. To that end, prospective teacher education students must demonstrate acceptable evidence of professional dispositions for admittance into and continuation in the Houghton College Teacher Education Program.

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

1. Complete an application (available from the department office, 200 Chamberlain Center),
2. Successfully complete the writing sample assessment,
3. Present a cumulative grade point average of at least 2.5,
4. Demonstrate acceptable evidence of professional dispositions, and
5. Receive formal approval from Teacher Education Committee.

For entry into **upper level education courses** (courses numbered 300 and higher), a student must:

1. Have been admitted to the teacher education program,
2. Have successfully completed specified 200-level course work in Education; ADE majors must complete at least 8 hours of course work from among EDUC 218, EDUC 219, 235, 240; ICE majors must complete the following courses (14 hours); EDUC 114, 219, 235, 240. Students in ALL teacher education strands (ADE, ICE, TESOL, PE, PE-Health, Music Ed) must complete EDUC 202 Topics in Professionalism by the end of the sophomore year.

3. Present a cumulative grade point average of at least 2.6
4. Demonstrate acceptable evidence of professional dispositions, and
5. Receive formal approval from Teacher Education Committee.

**Note:** Continuation in the second semester of the junior-level course sequence in each program is contingent upon successful completion of all requirements for coursework and field placements.

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

1. Complete and submit the Application for Professional Field Semester **by the end of the second**

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**week of the semester prior to the requested professional semester,**

2. Have successfully completed the junior level course sequence appropriate to the major, including successful completion of all field placement requirements,
3. Present a cumulative grade point average of at least 2.7,
4. Demonstrate acceptable evidence of professional dispositions,
5. Complete all state-mandated training sessions required for certification (completed in EDUC 202), and
6. Receive formal approval from the Teacher Education Committee.

Adolescence education, physical education, physical-health education or TESOL majors seeking approval for **student teaching outside the United States** must present a cumulative grade point average of at least 2.8 and receive approval from the Teacher Education Committee before they will be permitted to apply for an international student teaching placement. Interested students should contact the student teaching coordinator one year prior to their intended student teaching semester to initiate this process. (Overseas student teaching placements are currently not available in the Inclusive Childhood Education major.)

**Student Teaching Policy:** Recognizing the importance of academic responsibility during teacher training and the challenges inherent in the teaching profession, the Teacher Education Committee has established a 2.7 cumulative grade point average as one of the necessary requirements for approval to student teach. However, there are occasions when a student whose cumulative GPA is below the 2.7 shows reasonable potential for success in student teaching. When such students are identified by their education department advisor and/or the student teacher coordinator, the student may prepare a letter of appeal (if his/her cumulative GPA is at least 2.65), and the case will be considered by the Teacher Education Committee.

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

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

### **New York State Teacher Certification**

Students completing adolescence education, inclusive childhood education, music education, TESOL, physical education or physical-health education majors may apply for an Initial Teaching Certificate from New York State. In addition to completing the requirements for the major, applicants for New York State teacher certification must complete the required New York State Teacher Certification Examinations (NYSTCEs) appropriate to the desired teaching certificate(s) including, at the time of this catalog's printing, the Liberal Arts and Sciences Test, the Assessment of Teaching Skills-Written, and the appropriate Content Specialty Test. Information on the NYSTCEs and New York State teacher certification is available from the education department office or from the New York State Education Department ([www.nysed.gov](http://www.nysed.gov)). Information regarding the music education, physical education and physical-health education majors is available in the respective sections of this catalog.

Those intending to teach in states other than New York are advised to familiarize themselves with the requirements of the state(s) in which they desire to be certified and to select courses accordingly. New York State has reciprocity agreements with 38 states, the District of Columbia, and Overseas Dependent Schools; further information about reciprocity agreements may be obtained through the education department.

### **Urban Connections**

The Education Department cooperates with the Office for Urban Connections of Houghton College at Buffalo. That office works with Houghton students and faculty who are interested in opportunities for service learning in an urban setting. Placements, supervision, and housing are arranged for students seeking practicum experiences, internships, student teaching, and other service learning activities with organizations and agencies in the city of Buffalo. Urban service learning experiences may involve a Houghton student commuting to the city one or two days a week, or living in the city for a semester. Additional information may be obtained by contacting the coordinator of the Office for Urban Connections at Houghton College at Buffalo.

**Adolescence Education Major: (44 hours)**

This major prepares students to teach at the secondary level (grades seven through 12) in one of the following subjects: biology, chemistry, English, mathematics, physics, social studies, or Spanish. The major includes a minimum of 100 hours of field experience which must be completed prior to student teaching; that field experience is linked to education courses, including the following: EDUC 240, EDUC 338, EDUC 33X.

Students majoring in adolescence education must complete one of the following as an additional major: augmented history (for social studies), biology, chemistry, English, mathematics, Spanish, or physics. New York State teacher certification requires at least 30 credit hours in the content to be taught, so in some cases, an additional elective course in the major is required.

**Required courses:**

EDUC 202	Topics in Professionalism .....	0
EDUC 218	Secondary Education & American Culture .....	4
EDUC 219	Educational Psychology .....	4
EDUC 223	Adolescent Literature .....	4
EDUC 235	Educating Exceptional Learners .....	4
EDUC 240	Teaching in Urban America .....	2
EDUC 313	Language, Literacy & Curriculum Integration .....	4
EDUC 338	Curriculum and Assessment in Secondary Classrooms .....	4
EDUC 33x	Secondary Teaching: Content Methods & Practicum.....	4
332	English Methods	
333	Foreign Language Methods	
334	Math Methods	
335	Science Methods	
336	Social Studies Methods	
EDUC 409	Secondary Student Teaching I .....	6
EDUC 410	Secondary Student Teaching II .....	6
EDUC 411	Senior Capstone: Seminar in Secondary Teaching .....	2

**TESOL Major with Intercultural Studies TESOL concentration (50 hours)**

This major prepares students to teach English to speakers of other languages at the elementary (grades K through 6) and the secondary level (grades seven through 12). The major includes a minimum of 100 hours of field experience which must be completed prior to student teaching; that field experience is linked to education courses, including the following: EDUC 240, EDUC 338, LING 440.

**Required courses:**

Four semesters of language study (proficiency through the 301 level)		
EDUC 202	Topics in Professionalism .....	0
EDUC 217	Education and American Culture <b>or</b>	
EDUC 218	Secondary Education and American Culture .....	4
EDUC 219	Educational Psychology .....	4
EDUC 235	Educating Exceptional Learners .....	4
EDUC 240	Teaching in Urban America .....	2
EDUC 236	Literacy, Culture, and Development .....	4
EDUC 338	Curriculum and Assessment in Secondary Classrooms .....	4
EDUC 422	TESOL student teaching: elementary level .....	5
EDUC 423	TESOL student teaching: secondary level .....	5
EDUC 424	Senior Capstone: Seminar in TESOL .....	2

Students majoring in TESOL education must complete Intercultural Studies with a concentration in TESOL as an additional major. The **TESOL concentration requires:**

LING 220	Intro to Linguistics .....	4
LING 350	First and Second Language Acquisition .....	4
LING 351	Linguistics for TESOL .....	4
LING 440	Theory and Practice of TESOL Methodology .....	4

**Inclusive Childhood Education**

This major prepares students to teach at the elementary level (grades one through six) in general and special education settings. The major includes a minimum of 150 hours of field experience in general and/or inclusive classroom settings which must be completed prior to student teaching; that field experience is linked to

education courses, including the following: EDUC 114, EDUC 219, EDUC 221, EDUC 235, EDUC 240, and EDUC 314.

Students will choose either, a) a concentration in art; communication; English; French; humanities; inter-cultural studies; mathematics, math/science, modern languages; science; music\*; social studies; Spanish; writing, or b) a second major selected from the following: art, biology (BA), chemistry (BA), communication, English, history, humanities, intercultural studies, math, music (BA), physics (BA), political science, Spanish, or writing. [Please note that completion of a concentration or major in Art (BA) or Music (BA) in conjunction with the ICE major does **not** lead to certification to teach art or music.] \*At the time of catalog printing, the concentration in music is still pending NASM approval.

**Pre/Co-requisites**

Students will take an appropriate social science course as part of their integrative Studies program.  
One course in history or political science that focuses on an aspect of the U.S. national experience, chosen under advisement.  
(NYS History encouraged.) ..... 4

**Inclusive Childhood Education Major Requirements**

EDUC 114	Mathematical Concepts and Reasoning .....	4
EDUC 202	Topics in Professionalism .....	0
EDUC 217	Education and American Culture .....	4
EDUC 219	Educational Psychology .....	4
EDUC 221	Children's Literature .....	4
EDUC 235	Educating Exceptional Learners .....	4
EDUC 240	Teaching in Urban America .....	2
EDUC 314	Inclusive Childhood Practicum I .....	1
EDUC 315	Inclusive Childhood Practicum II .....	1
EDUC 320	Curriculum and Assessment in Inclusive Classrooms .....	4
EDUC 325	Issues in Inclusive Education I .....	2
EDUC 328	Foundations of Language and Literacy for Diverse Learners I ..	4
EDUC 329	Foundations of Language and Literacy for Diverse Learners II ..	4
EDUC 341	Soc. Studies in Inclusive Classrooms .....	2
EDUC 342	Math and Science in Inclusive Classrooms .....	4
EDUC 408	Inclusive Childhood Student Teaching .....	10
EDUC 425	Issues in Inclusive Education II .....	2
EDUC 485	Senior Capstone: Seminar on Reflective Teaching.....	2

**Concentrations**

**1) Art Concentration (32 hours)**

Studio Foundation (8 hours)		
ART 131	Intro to Visual Arts .....	2
ART 241	2D Design .....	2
ART 242	3D Design .....	2
ART 211	Drawing I .....	2
Art History (must take at least 2 of the following) (8 hours)		
ART 231	Ancient Art History .....	4
ART 232	Renaissance & Baroque Art History .....	4
ART 314	Art & History of Film .....	4
ART 235	African Art History .....	4
ART 237	Modern & Contemporary Art History .....	4
Art Electives (4 hours)		

Concentration (12 hours) \*Students choose a concentration area from the following: *painting, ceramics, photo, printmaking, sculpture, mixed media, drawing, or graphic design* and then take studio 2, 3, 4 for that concentration area.

**2) Communication Concentration (30 hours)**

Pre-requisites (2 hours)		
COMM 101	Presentational Speaking .....	2
Core (12 hours)		
COMM 205	Intro to Communication Theory .....	4
Choose 2 of the 3 courses listed below. If a schedule conflict should occur, substitutions may only be made with approval from the appropriate department chair(s).		
COMM 214	Intro to Mass Media .....	4
COMM 215	Interpersonal Communication .....	4

COMM 216	Organizational Communication .....	4
Electives (16 hours) – please select additional COMM elective courses with input from your advisor(s).		

### 3) English Concentration (30 hours)

Pre-requisites (4 hours)		
WRIT 101	Writing in the Liberal Arts <b>or</b>	
ENGL 207	Intro to Literary Studies .....	4
Core (12 hours)		
You should attempt to complete each of the core courses prescribed below. If a scheduling conflict should occur, substitutions may only be made with approval from the appropriate department chair(s).		
One course before 1800 .....		4
One course after 1800 .....		4
Major Author .....		4
Electives (16 hours)		
Please select additional ENGL elective courses with input from your advisor(s).		
EDUC 221 Children's Literature and EDUC 223 Adolescent Literature are also permissible electives for this concentration.		

### 4) French Language, Culture & Linguistics Concentration (30 hours) *(In most cases, you will earn 32 hours)*

Prerequisite/Core (0-16 hours)		
FREN 101	French Level 1 .....	4
FREN 102	French Level 2 .....	4
FREN 205	Intermediate French .....	4
FREN 301	French Conversation and Grammar .....	4
<i>(Note: If you enter Houghton College with demonstrated <b>competency</b> toward one or more of these courses, you will need to select additional French electives to ensure that you have earned a minimum of 30 credits. If you transfer in <b>credit</b>, those credits will count toward your concentration. Earned CLEP credit will count toward the 30 hour minimum. Consult the college catalog regarding CLEP policies. With appropriate prior approval, you may transfer up to 16 credits toward a concentration in French.)</i>		
Electives (16-32 hours)		
Please select additional FREN elective course(s) with input from your advisor(s).		

### 5) Humanities Concentration (30 hours)

Literature (7-8 hours)		
INTS 203	Literature & Wisdom (6 hours – 3 count for Literature) .....	3
INTS 152	The Meaning of the West .....	4
ENGL XXX	.....	4
ENGL XXX	.....	4
Philosophy (7-8 hours)		
PHIL XXX	.....	(2/4)
PHIL XXX	.....	(2/4)
INTS 203	Literature & Wisdom (6 hours – 3 count for Philosophy) .....	3
INTS 152	The Meaning of the West .....	4
PHIL 202	Metaphysics, Morality and Mind .....	4
PHIL 243	Ancient Philosophy .....	4
PHIL 244	Medieval Philosophy .....	4
PHIL 245	Early Modern Philosophy .....	4
PHIL 246	Late Modern & Contemporary Philosophy .....	4
History (8 hours) <i>Courses must be numbered 200 or above.</i>		
HIST XXX	.....	4
HIST XXX	.....	4
Choose one from either category below (3-4 hours)		
<i>Art History</i>		
ART 132	Art & Architecture in Context in Europe .....	4
ART 231	Ancient Art History .....	4
ART 232	Renaissance & Baroque Art History .....	4
ART 234	Art & Architecture in Europe .....	4
ART 235	African Art History .....	4
ART 237	Modern & Contemporary Western Art History .....	4
ART 314	The Art & History of Film .....	4
<i>Music History</i>		
MHS 222	Introduction to Film Music .....	3
MHS 231/232	Music History and Literature I & II .....	2, 2
MHS 254	Music of World Cultures .....	3
Elective chosen from either ENGL, PHIL, or HIST (selected from options listed above)(2-5 hours)		



## 6) Intercultural Studies Concentration (30 hours)

### Core (12-16 hours)

You should attempt to complete each of the core courses prescribed below. If a scheduling conflict should occur, substitutions may only be made with approval from the appropriate department chair(s).

INCL 201	Introduction to Global Issues .....	4
INCL 243	Cultural Anthropology .....	4
INCL 310	Intercultural Competencies .....	4
INCL 311	Intercultural Experience .....	4

Electives (14-20 hours) – please select additional elective courses with input from your advisor(s). Suitable electives are any courses that could be counted towards the Intercultural Studies Major, including:

- 1) Core courses in the Intercultural Studies Major that are not included above in the core for the Intercultural Studies Concentration
- 2) Courses included in any of the Intercultural Studies Concentrations (International Development, Islamic Studies, Linguistics, Missions, Urban Studies, French, Spanish, TESOL)
- 3) Other electives listed as suitable for the Intercultural Studies Major.

## 7) Mathematics Concentration (30 hours)

### Mathematics (14 hours)

EDUC 114	Mathematical Concepts & Reasoning .....	4
MATH 181	Calc I <i>or</i> MATH 180 Calc & Its Origins .....	4
MATH 182	Calc II .....	4
MATH 210	Introduction to Proofs .....	2

Mathematics and Computer Science Electives (16 hours) – Courses may be chosen from among CSCI Programming I, CSCI Programming II or Math Electives 2XX or above. Two 2-credit courses may be substituted for a 4-credit course.

## 8) Mathematics & Science Concentration (30 hours)

### Mathematics (at least 14 hours)

EDUC 114	Mathematical Concepts & Reasoning .....	4
	Calculus Elective .....	4
MATH 210	Introduction to Proofs .....	2
MATH XXX	.....	(2-4)
MATH XXX	.....	(2-4)

Science (at least 14 hours) Choose courses from at least two of the following areas:

#### *Biology*

BIOL 103	Fundamentals of Biology .....	4
BIOL 105	Conservation Biology .....	4
BIOL 151	General Biology I .....	4
BIOL 152	General Biology II .....	4
BIOL 217	Human Anatomy & Physiology .....	4

#### *Chemistry*

CHEM 121	Impact: Science on Society .....	3
CHEM 187	Intro to Nutrition (with optional lab) .....	(3-4)
CHEM 151	General Chemistry I .....	4
CHEM 152	General Chemistry II .....	4

#### *Earth Science/Physics*

ESCI 101	Physical Geology .....	(3-4)
ESCI 212	Environmental Earth Science .....	(4)
PHYS 102	General Astronomy .....	(3-4)
PHYS 130	How Things Work .....	4
PHYS 151	General Physics .....	4

Substitutions may be made under advisement and with the approval of the appropriate department chair(s).

## 9) Modern Languages Concentration (30 hours)

### Pre-requisites (0-24 hours)

Students pursuing a concentration in Modern Languages must demonstrate intermediate-level competency in two modern languages.

*Choose two of the languages below:*

SPAN 101	Spanish Level 1 .....	4
SPAN 102	Spanish Level 2 .....	4
SPAN 205	Intermediate Spanish .....	4
FREN 101	French Level 1 .....	4
FREN 102	French Level 2 .....	4
FREN 205	Intermediate French .....	4

GERM 101	German Level 1 .....	4
GERM 102	German Level 2 .....	4
GERM 205	Intermediate German .....	4

Or you may demonstrate proficiency (Level 2 or higher) in another language, either through competency or earned credit. *Note: If you enter Houghton College with demonstrated competency toward one or more of these courses, you will need to select additional electives to ensure that you have earned a minimum of 30 credits. If you transfer in credit, those credits will count toward your concentration.*

Electives (6-24 hours)

Please select additional SPAN, FREN, GERM or other elective courses with input from your advisor(s). Electives must be selected from the same two languages you studied in the section above. Whenever possible, you should choose a "culture" elective and a "literature" elective in each of your chosen languages. If one of the languages you wish to study is not available at Houghton College, you will need to work closely with your advisor(s) to ensure that courses you might wish to transfer in meet the criteria for this concentration. You may transfer in up to 16 credits toward this concentration.

## 10) Music Concentration (32-33 hours) (pending)

Music Theory and Musicianship Studies (12-16 hours)

8 hours as follows:

MTH 225	Music Fundamentals Review .....	2
MTH 226	Musicianship Development: Intro to Tonality .....	2
MTH 227	Basic Tonal Harmony .....	3
MTH 228	Music Development: Tonal Melody & Harmony .....	1

4-8 hours as follows:

MTH 325	Advanced Total Harmony & Counterpoint .....	3
MTH 326	Music Development: Advanced Tonality.....	1

**and/or**

MTH 327	The World of Contemporary Music .....	4
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Music Education (2 hours)

MED 351	Elementary School Methods .....	2
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Music Literature, Stylistic, and Historical Studies (7-10 hours)

MLT 211	Intro to Music and Listening .....	4
MHS 333	Music History & Literature III* .....	3
MHS 334	Music History & Literature IV* .....	3

*\*If both Adv. Tonality and World of Contemporary Music are elected, one music history course beyond Music and Listening is chosen. If only one theory option is elected, then both history courses are to be taken.*

Applied Music (6 hours) – chosen under advisement – should total at least 6 credit hours.

Ensemble Participation – minimum 4 semesters of participation in major ensemble with or without credit.

Electives (2 hours) – select music elective(s) in consultation with your curriculum advisor.

Recommended:

MUS 250	Music in Christian Perspective .....	2
MUS 229	Basic Conducting .....	2

## 11) Science Concentration (30 hours)

*Students concentrating in science must select courses from at least three of the disciplines listed below. Students must take at least 2 courses from 2 of the chosen disciplines.*

Biology

BIOL 103	Fundamentals of Biology .....	4
BIOL 151/152	General Biology I & II .....	4, 4
BIOL elective 105 or above .....		4
BIOL elective 105 or above .....		4

*(Note: BIOL 151/152 are prerequisites for most upper level Biology courses.)*

Earth Science

ESCI 212	Environmental Earth Science .....	3-4
ESCI 101	Physical Geology .....	3-4
ESCI elective above 102 .....		4

Chemistry

CHEM 187, 188	Intro to Nutrition .....	3-4
CHEM 121	Impact: Science on Society .....	3
CHEM 151	General Chemistry I .....	4
CHEM 152	General Chemistry II .....	4

Physics

PHYS 151	General Physics I .....	4
PHYS 152	General Physics II .....	4
PHYS 102	General Astronomy .....	3-4
PHYS 130	How Things Work .....	4

Substitutions may be made under advisement and with the approval of the appropriate department chair(s).

## 12) Social Studies Concentration (30 hours)

### History (16 hours)

Any HIST course(s) meeting the IS Culture: History requirement.....	4
Any American History elective .....	4
<i>(Choose from HIST 126, 220, 359, 360, 361, 362, or an approved ST course in American History chosen under advisement)</i>	
HIST elective above 220 .....	4
HIST elective, non-European, non-American History .....	4

### Political Science (4 hours) *select one of the following options*

POLS 201	Introduction to Politics .....	4
POLS 202	Immigration and Citizenship .....	4
POLS 204	Intro to Democracy and Governance .....	4

### Economics (2 hours)

ECON 201	Intro to Economics .....	2
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### Social Science (8 hours) *Select two of the following classes upon consultation with your curriculum advisor.*

PSY 213	Developmental Psychology .....	4
SOC 101	Principles of Sociology <b>or</b>	
ANTH 243	Cultural Anthropology .....	4
Two ECON courses numbered 210 or above .....	2, 2	
Any POLS course number 204 or above .....	4	
<i>(POLS 210 World Regional Geography recommended)</i>		

## 13) Spanish Language, Culture & Linguistics Concentration (30 hours)

### Pre-requisites (0-12 hours)

SPAN 101	Spanish Level 1 .....	4
SPAN 102	Spanish Level 2 .....	4
SPAN 205	Intermediate Spanish .....	4

*Note: If you enter Houghton College with demonstrated competency toward one or more of these courses, you will need to select additional electives to ensure that you have earned a minimum of 30 credits. If you transfer in credit, those credits will count toward your concentration.*

### Core (16 hours)

You should attempt to complete each of the core courses prescribed below. If a scheduling conflict should occur, substitutions may only be made with approval from the appropriate department chair(s).

SPAN 301	Spanish Communication .....	4
SPAN 305	Spanish Phonetics .....	4
SPAN 407	Hispanic World Cultures .....	4
SPAN 350	Advanced Spanish Grammar & Composition .....	4

### Electives (4-16 hours)

Please select additional SPAN elective course(s) with input from your advisor(s).

## 14) Writing Concentration (30 hours)

### Pre-requisites (4 hours)

WRIT 101	Writing in the Liberal Arts <b>or</b>	
ENGL 207	Intro to Literary Studies .....	4

*Note: If you enter Houghton College with written competency, you will need to select additional writing electives to ensure that you have earned a minimum of 30 credits. If you transfer in credit, those credits will count toward your concentration.*

### Core (8 hours)

You should attempt to complete each of the core courses prescribed below. If a scheduling conflict should occur, substitutions may only be made with approval from the appropriate department chair(s).

WRIT 214	Literary Non-Fiction .....	4
WRIT 215	Life Narratives .....	4

### Electives (20 hours)

Please select additional ENGL/WRIT elective course(s) with input from your advisor(s).

## Education minor: 16 hours

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

### Required Courses:

EDUC 219	Educational Psychology .....	4
EDUC 217	Education and American Culture .....	4
	<b>or</b>	
EDUC 218	Secondary Education and Culture .....	4

**Choose at least two of the following** in consultation with an Education Department faculty member:

EDUC 114	Mathematical Concepts and Reasoning .....	4
EDUC 221	Children's Literature .....	4
EDUC 223	Adolescent Literature.....	4
EDUC 235	Educating Exceptional Learners .....	4
EDUC 236	Literacy, Culture, and Development .....	4
EDUC 240	Teaching in Urban America .....	2
EDUC 313	Lang. Literacy, and Curriculum Integration.....	4

**COURSE DESCRIPTIONS**

**EDUC 102 College Study Methods** (P/U) (1, F)  
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 Mathematical Concepts and Reasoning** (4, 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. Attention to development of mathematical concepts and reasoning.

**EDUC 202 Topics in Professionalism** (0, F & S)  
This pass or fail course is designed to enable all education majors to meet New York state regulations for training in special topics (Identification and Reporting of Suspected Child Abuse or Maltreatment; School Violence Prevention and Intervention; Prevention of Child Abduction; Prevention of Alcohol, Tobacco and other Drug Abuse; Safety Education; Instruction in Fire and Arson Prevention). In addition it will provide information about certification, state testing requirements, and student teaching. Required before practicum experiences.

**EDUC 203 Workshop: Child Abuse + ID** (0, F & S)  
All HCTEP majors and applicants for certification must complete two hours of coursework or training in the identification and reporting of suspected child abuse and maltreatment, as required by Sections 3003(4) and 3004 of the Education Law. Upon completion of the workshop, each participant will receive a certificate of completion.

**EDUC 204 Workshop: School Violence** (0, F & S)  
All HCTEP majors and applicants for certification must complete two hours of coursework or training in school violence prevention and intervention, as required by section 3004 of the Education Law. Upon completion of the workshop, each participant will receive a certificate of completion.

**EDUC 217 Education and American Culture** (4, F & S)  
A survey of the philosophical and historical antecedents of American education and their relationships to current educational debates. The influence of culture and language on experience and on education are considered. Students develop an initial statement of their personal philosophy of education.

**EDUC 218 Secondary Education and American Culture** (4, F & S)  
A survey of the philosophical and historical antecedents of American education and their relationships to current educational debates with a focus on secondary schools. The influence of culture and language on experience and on education are considered. Students develop an initial statement of their personal philosophy of education.

**EDUC 219 Educational Psychology** (4, F&S)  
The individual in the teaching/learning process. Focus on learning models and theories, cognition, individual differences, motivation, and instructional psychology. Particular attention is given to intellectual and social development in formal and informal learning situations.

**EDUC 221 Children's Literature** (4, 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. Particular attention is given to international and multicultural children's literature, to literary criticism as it pertains to children's literature, and to developmental and philosophical perspectives.

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**EDUC 223 Adolescent Literature****(4, F10)**

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. Students investigate critical theories about the function and purpose of literature for adolescents, including developmental, aesthetic, and cultural considerations. Attention will be given to international and multicultural literature, as well as to literary criticism of young adult literature.

**EDUC 235 Educating Exceptional Learners****(4, F & S)**

Examines the historical and legal contexts for providing services to diverse learners with a range of special educational considerations. Explores the scope of exceptionalities and the processes used to identify and address special needs. Emphasis is placed on the collaborative role of the general educator in meeting the needs of exceptional learners in inclusive settings.

**EDUC 236/INCL 236 Literacy, Culture, and Development****(4, S)**

This course focuses on schooling for ethnolinguistic minorities in an international comparative perspective. Drawing on case studies from a variety of countries in North America, Latin America, Africa, and Asia, students examine the rationales that motivate the “development” strategies of which education and language in education policies are a part and consider the roles that culture(s) and language(s) play in the schooling experience and educational outcomes of children and communities. The role of schooling as a primary focus of national and international development planning is considered.

**EDUC 240 Teaching in Urban America****(2, M)**

Provides exposure to and an understanding of race, class and culture issues in contemporary urban schools. The student will develop an awareness of family and community as partners with schools in the education enterprise. Students will participate in a 10 day field experience in an urban school, working as teachers’ assistants. Recommended sophomore year. **Prerequisite: EDUC 202.**

**EDUC 305 Middle School Content-Area Learning Strategies****(3, M11)**

Examines a variety of research-validated content-area learning strategies, self-advocacy strategies and process strategies for use in inclusive classrooms in the middle grades (grades 5-9). Students will research, read, review, critique and develop a variety of instructional strategies for use with middle-grade learners (with and without disabilities) across multiple content areas. According to NYS teacher certification requirements (2/2010), ICE graduates who are granted an Initial Teaching Certificate from New York State and who complete this course with a C or better **may be** able to extend their teaching certificate to include the middle grades through Individual Evaluation for Additional Classroom Teaching Certificate pathway (<http://eservices.nysed.gov/teach/certhelp/CertRequirementHelp.do>).

**EDUC 306 Early Childhood Education: Language and Literacy Development****(3, M12)**

Focuses on research-based principles and practices for language and literacy development of children birth to 2nd grade. Emphasis is given to understanding the processes by which young children learn spoken and written language and to designing appropriate learning experiences to support the development of language and literacy in young children. According to NYS teacher certification requirements (2/2010), ICE graduates who are granted an Initial Teaching Certificate from New York State and who complete this course with a C or better **may be** able to extend their teaching certificate to include the early childhood grades through Individual Evaluation for Additional Classroom Teaching Certificate pathway (<http://eservices.nysed.gov/teach/certhelp/CertRequirementHelp.do>).

**EDUC 313 Language, Literacy and Curriculum Integration****(4, S)**

Considers the role of language in secondary curriculum from philosophical, technical, cultural, and political perspectives. Models of curriculum integration at the secondary level are explored and applied.

**EDUC 314 Inclusive Childhood Practicum I****(1, F)**

Two half-days per week in either a primary (grades one-three) or intermediate (grades four-six) classroom. Focus on observing children and the learning environment, assisting the classroom teacher with daily routines, and supporting the learning of individual children. **Taken concurrently with EDUC 320 and EDUC 328. Prerequisites: EDUC 202, EDUC 219 and EDUC 235.**

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**EDUC 315 Inclusive Childhood Practicum II** (1, S)  
Continuation of EDUC 314. Two half-days per week in same classroom assigned for EDUC 314. Focus on increasing responsibility for planning and teaching of lessons under the guidance of the classroom teacher. **Taken concurrently with EDUC 325, EDUC 329, EDUC 341, and EDUC 342. Prerequisites EDUC 235, EDUC 314, EDUC 320 and EDUC 328.**

**EDUC 320 Curriculum and Assessment in Inclusive Classrooms** (4, F)  
Provides an exploration of the development of elementary curriculum and assessment and the creation of learning environments that support diverse learners in inclusive settings. Includes an examination of lesson planning and unit planning. Prerequisites: EDUC 219, EDUC 235. **Taken concurrently with EDUC 314 and EDUC 328.**

**EDUC 321: Classroom Dynamics: Models & Research** (2, OD)  
Examines and critiques several proven models of classroom management through research and direct observation. It will provide the participant with ideas to consider and tools to draw upon when managing group learning situations with learners from all ages and grade levels. Participants will develop their own personal philosophy of management and discipline based on this new foundation.

**EDUC 325 Issues in Inclusive Education I** (2, S)  
This course addresses issues in inclusive education, including the ongoing assessment of children with special needs; assistive technology; and collaboration among parents, teachers, administrators, and students. Special attention will be given to the evaluation of various teaching methodologies and the development of appropriate academic and behavioral interventions for students with disabilities. **Taken concurrently with EDUC 315, EDUC 329, EDUC 341 and EDUC 342.**

**EDUC 328 Foundations of Language and Literacy for Diverse Learners I** (4, F)  
Introduces the nature of children's language and literacy learning and the assessment and instruction of the English language arts in inclusive classrooms. Considers the means of developing a learning environment that nurtures the language learning of all children. Students articulate a philosophy of teaching the English language arts and begin to develop their program portfolio. **Prerequisites: EDUC 219 and EDUC 235 or permission of instructor. Taken concurrently with EDUC 314 and EDUC 320.**

**EDUC 329 Foundations of Language and Literacy for Diverse Learners II** (4, S)  
Examines authentic assessment and instruction of the English language arts in inclusive classrooms with particular focus on children with special needs, English language learners, and students from diverse cultures. Students focus on educational research and the continued development of their program portfolio. **Prerequisite: EDUC 328. Taken concurrently with EDUC 315, EDUC 325, EDUC 341, and EDUC 342.**

**EDUC 33X Secondary Teaching: Content Methods and Practicum** (4, S)  
Adolescence Education majors register for the appropriate content area methods course. This course should be taken the year prior to student teaching. Each course will address instructional methods, New York State Learning Standards, and curricular issues particular to the given content. Practicum placement with a secondary teacher certified in the target content area is part of the course. **Prerequisite: EDUC 338**

**EDUC 332 English Methods**

**EDUC 333 Foreign Language Methods**

**EDUC 334 Math Methods**

**EDUC 335 Science Methods**

**EDUC 336 Social Studies Methods**

**EDUC 338 Curriculum & Assessment in Secondary Classrooms** (4, F)  
Examination and analysis of the strategies and dynamics of teaching and learning in middle and high school classrooms. Attention given to technology integration in classroom settings and to implementation of developmentally appropriate instruction. Students will begin the ADE junior practicum placement with a certified secondary teacher in their content area. **Prerequisite: EDUC 218 and EDUC 219.**

**EDUC 341 Social Studies in Inclusive Classrooms** (2, S)  
Exploration of methods and materials for addressing the needs of diverse students in pursuing various aspects of national and state curriculum standards in social studies. The focus will be on helping students develop a

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knowledge base and skills in areas such as: history, geography, economics, civics, cultural studies, and global education. **Taken concurrently with EDUC 315, EDUC 325, EDUC 329, and EDUC 342.**

**EDUC 342 Mathematics and Science in Inclusive Classrooms** (4, S)

Exploration of methods and materials pertaining to teaching elementary mathematics and science in inclusive settings. National curriculum standards are examined as well as New York State Learning Standards in each subject. **Taken concurrently with EDUC 315, EDUC 325, EDUC 329 and EDUC 341.**

**EDUC/LING 351 Linguistics for TESOL** (Teaching English to Speakers of Other Languages) (4, S)

This course will examine some of the unique challenges of English structure (phonological, morphological, syntactical, semantics and pragmatics) and the transfer problems that non-native speakers may have. Prerequisite: LING 220.

**EDUC 355 Theory and Practice of Bilingual Education** (3, OD)

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

**\*EDUC 408 Inclusive Childhood Student Teaching** (10, F&S)

Twelve weeks in a supervised student teaching experience in inclusive classroom setting(s), either primary (grades one-three) or intermediate (grades four-six) depending on the elementary practicum placement. **Designed for students who have completed all education course work except EDUC 425 and EDUC 485. Students must also register for EDUC 203, 204, 425 & 485. (See department policy on “Employment and Activities While Student Teaching.”)**

**\*EDUC 409 Secondary Student Teaching I** (6, F&S)

Minimum seven-week placement in either grades 7-9 or grades 10-12 in the appropriate content area. The experience will include a minimum of two weeks with full teaching load responsibilities. **Prerequisite: EDUC 33x (Secondary Teaching Methods), EDUC 338, and EDUC 313. Taken concurrently with EDUC 203, 204, 410 & 411. (See policy below on “Employment and Activities while Student Teaching.”)**

**\*EDUC 410 Secondary Student Teaching II** (6, F&S)

Minimum six-week placement in either grades 7-9 or grades 10-12 in the appropriate content area. The experience will include a minimum of two weeks with full teaching load responsibilities. **Prerequisite: EDUC 33x (Secondary Teaching Methods), EDUC 338, and EDUC 313. Taken concurrently with EDUC 203, EDUC 204, EDUC 409 & EDUC 411. (See policy below on “Employment and Activities while Student Teaching.”)**

**\*EDUC 411 Senior Capstone: Seminar in Secondary Teaching** (2, F&S)

Serves as a capstone course to the major, exploring issues related to the teaching professions through reflective thinking and research-based learning. **Taken concurrently with EDUC 409 & 410.**

**\*EDUC 422 TESOL Student Teaching: elementary level** (5, F&S)

Minimum six-week placement in TESOL setting at the elementary level (grades K-6). The experience will include a minimum of two weeks with full teaching responsibilities.

**\*EDUC 423 TESOL Student Teaching: secondary level** (5, F&S)

Minimum six-week placement in TESOL setting at the secondary level (grades 7-12). The experience will include a minimum of two weeks with full teaching responsibilities.

**\*EDUC 424 Senior Capstone: Seminar in TESOL** (2, F&S)

Serves as a capstone course to the major, exploring issues related to the teaching professions through reflective thinking and research-based learning. **Taken concurrently with EDUC 422 & 423.**

**EDUC 425 Issues in Inclusive Education II** (2, F&S)

This course addresses issues in inclusive education, giving explicit attention to legislative initiatives and revisions impacting the education of students with special needs, as well as the professional roles and responsibilities



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ties of special educators. The thorough development of an individualized education program is a key course component. **Taken concurrently with EDUC 203, EDUC 204, EDUC 408 and EDUC 485.**

**\*EDUC 485 Senior Capstone: Seminar on Reflective Teaching** (2, F&S)  
Provides an opportunity for inclusive childhood student teachers to summarize and reflect on their knowledge and understanding of the liberal arts and the nature of teaching and learning in inclusive classrooms and to apply their understanding of the intellectual tools of their major disciplines through the final revision and development of their program portfolio. **Taken concurrently with EDUC 408 and EDUC 425.**

**EDUC 230, 330, 430 Special Topics** (2, or 4 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** (2, or 4 OD)

**EDUC 496 Honors in Education** (2, or 4 OD)

### **Courses required in TESOL Concentration as part of the TESOL Certification Program**

**LING 350 First and Second Language Acquisition** (4, F)  
Explores the linguistics, psychology, and social contexts of language acquisition, along with instructional and policy implications for schooling in multilingual settings. In addition to course readings and class discussions, students examine the claims of language acquisitions theory through guided interactions with language learners and by conducting small-scale experiments.

**ENGL/LING 220 Introduction to Linguistics** (4, 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).

**EDUC/LING 351 Linguistics for TESOL** (Teaching English to Speakers of Other Languages) (4, S)  
This course will examine some of the unique challenges of English structure (phonological, morphological, syntactical, semantics and pragmatics) and the transfer problems that non-native speakers may have. Prerequisite: LING 220.

**LING 440 Theory and Practice of TESOL Methodology** (4, S)  
Examines the language, reading, and writing development of English language learners. It explores TESOL methodology, assessment techniques, and ways to create a learning environment that nurtures language and literacy development. Students articulate a philosophy of TESOL and put learning into practice in a weekly practicum. Prerequisite: LING 220, LING/EDUC 351 and LING 350, or permission of instructor.

### **\*IMPORTANT INFORMATION FOR STUDENT TEACHING**

#### **Employment and Activities while Student Teaching:**

The college seeks to provide each student with the greatest opportunity for success during student teaching. Students are **expected** to eliminate all employment during the student teaching semester. However, because students may have extenuating circumstances that necessitate exemption from this restriction, the Teacher Education Committee agrees that under the following guidelines, a student may be permitted to work:

- The student has shown a history of responsible behavior with respect to course requirements and Department of Education guidelines.
- The student presents a written request stating his/her financial need and the anticipated work responsibilities, including days and hours.
- The student provides a supporting letter from his/her advisor affirming the student's ability to meet student teaching responsibilities and work involvements with a high degree of success.



- The student can demonstrate that outside employment will not interfere with normal after-school responsibilities associated with the student teaching assignment.
- The student indicates willingness to abide by any restrictions concerning working that the Teacher Education Committee requires.

**PLEASE NOTE:** If outside employment hinders a student’s teaching performance, the Teacher Education Committee reserves the right to require the student teacher to further limit or eliminate work hours. Failure to follow the appeal procedure may result in the student being removed from the field experience. Students may be members of intercollegiate teams and club sports only if they have received special approval from the Teacher Education Committee prior to placement. During the student teaching related classes, students may not enroll in other college classes with the exception of EDUC 411, 424, 425, 485 or 496.

# Engineering

**Department of Physics and Earth Science:** Mark E. Yuly, chair. Keith A. Horn, Associate Dean

**Faculty:** Donell Brandon Hoffman, Mark E. Yuly, Christopher M. Wells

**Web site:** [www.houghton.edu/academics/programs/physics](http://www.houghton.edu/academics/programs/physics)

**Phone:** 585.567.9280

**Applied Physics Major — Engineering Emphasis: BS (35 hours in major; 16 in prerequisites; 12 in co-requisites)**

## General Information

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

The requirements for the engineering physics major are as follows:

Prerequisites (16):		
PHYS 151,152	General Physics I, II .....	8
MATH 180 C	alculus and Its Origins or	
MATH 181	Calculus I .....	4
MATH 182	Calculus II.....	4
Co-requisites (12):		
MATH 241	Differential Equations.....	4
MATH 321	Multivariate Calculus.....	4
CHEM 151	General Chemistry I <b>or</b>	
CSCI 211	Programming I.....	4
<i>Required (35):</i>		
PHYS 215	Statics & Engineering Design .....	4
PHYS 251	Mechanics I .....	4
PHYS 258	Analog Electronics .....	4
PHYS 259	Digital Electronics .....	4
PHYS 212	Modern Physics.....	4
PHYS 353	Electricity and Magnetism I.....	4
PHYS 355	Thermal Physics.....	4
PHYS 471, 472	Physics Project Lab .....	2
PHYS 482	Senior Capstone: Physics Seminar .....	1
One advanced theory course selected from:		
PHYS 352	Mechanics II.....	4
PHYS 354	Electricity and Magnetism II .....	4
PHYS 356	Quantum Mechanics.....	4
Additional recommended supporting courses include:		
PHYS 260	Optics .....	4
CHEM 152	General Chemistry II .....	4
ECON 210	Microeconomics.....	2
BADM 303	Entrepreneurship .....	2

# Dual-Degree Engineering Program

## General Information

This is a cooperative program involving Houghton and Clarkson University. Clarkson University, located in Potsdam, NY, is well-known for its outstanding engineering curriculum, offering degrees in Aeronautical, Biomedical/Rehabilitation, Biomolecular, Chemical, Civil, Computer, Electrical, Environmental, Mechanical, and Software Engineering, as well as Engineering & Management.

In a typical dual-degree program, the student will spend three years at Houghton and two years at Clarkson University. 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 Clarkson University. The Houghton College degree would be in an appropriate field of study, typically Applied Physics, general science, chemistry, or biology, and the degree from Clarkson University would be in the student's chosen engineering field. To be eligible to receive a Houghton degree, the student must satisfy the "senior in absentia" requirements (see Index for page number).

A typical course load during that time might include

MATH 180	Calculus and Its Origins or	
MATH 181	Calculus I .....	4
MATH 182	Calculus II .....	4
PHYS 151, 152	General Physics I, II .....	8
PHYS 215	Statics and Engineering Design .....	4
PHYS 251	Mechanics I .....	4
CHEM 151, 152	Chemistry I, II.....	8
CSCI 211	Programming I.....	4
MATH 241	Differential Equations.....	4
MATH 321	Multivariate Calculus.....	4
Other courses may include:		
PHYS 258	Analog Electronics.....	4
PHYS 259	Digital Electronics .....	4
PHYS 352	Mechanics II.....	4
BIOL 151, 152	General Biology I, II.....	8
CHEM 241,242	Organic Chemistry .....	8
CSCI 236	Data Structures and Algorithms.....	4

The remainder of a student's load at Houghton would consist of major requirements and integrative studies courses. The integrative studies requirements at Houghton would, of course, meet humanities and/or social science requirements at the partner school.

## COURSE DESCRIPTIONS

See Biology, Business Administration, Chemistry, Computer Science, Economics, Mathematics, and Physics sections.



**English** (major and minor)  
**Department of English and Writing:** James F. Wardwell, chair and Associate Dean  
**Faculty:** Laurie A. Dashnau, Lori L. Huth, Susan Bruxvoort Lipscomb, James F. Wardwell, Linda Mills Woolsey, Stephen A. Woolsey, James A. Zoller  
**Web site:** www.houghton.edu/academics/programs/english-writing  
**Phone:** 585.567.9670

**Major:** 40 hours in the major  
The major in English provides students with strong liberal arts preparation for a variety of careers in fields including education, business, and the media. It is also appropriate for pre-seminary and pre-law students.

Required courses:	20 hrs
ENGL 207 Introduction to Literary Studies.....	4
One ENGL course before 1800.....	4
One ENGL course after 1800 .....	4
ENGL 335/350 Major Author .....	4
ENGL 418 Senior Capstone: Seminar .....	4

For the additional five courses, choose one of the following options:

Option One: <i>Literature Emphasis</i> .....	20 hrs
Three (ENGL) literature courses .....	12
One or two (ENGL) literature courses <b>OR</b> .....	8
One or two (WRIT) writing courses	

Option Two: <i>Writing Emphasis</i> .....	20 hrs
Two (ENGL) literature courses.....	8
Three writing courses distributed as follows:	
Required course: WRIT 214 Literary Non-Fiction .....	4
Two (WRIT) writing courses .....	8

**Teaching English – Inclusive Childhood (Elementary) Education or Adolescence (Secondary) Education:** See Education section in this catalog.

**Minor:** 16 hours  
Students electing a minor in English are required to take four courses:  
Required course: ENGL 207 Introduction to Literary Studies ..... 4  
Three (ENGL) literature courses. ....12

COURSE DESCRIPTIONS

**ENGL 202 Literary Voices** (4, F/S)  
The principles of literary interpretation. Topical or thematic study of texts, the reading process, and critical perspectives to develop analytical thinking and appreciation. Culture: Literature.

**ENGL 207 Introduction to Literary Studies** (4, F&S)  
An introduction to the principles and practices of English studies. Emphasis on writing critical papers on the four major genres utilizing a variety of critical approaches and on the writing and presentation of scholarly research papers, including appropriate MLA documentation. Development of critical vocabulary, understanding, and application of the various principles and practices of the multiple schools of literary criticism. Required of English majors. Competency: Writing.

**ENGL 213 English Literature I** (2, F11)  
Surveys major works and literary movements in England from *Beowulf* through Neoclassicism. Provides biographical, historical, and ideological information to enhance understanding. Culture: Literature.

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- ENGL 214 English Literature II** (2, F11)  
Surveys major works and literary movements of the Romantic, Victorian, modern, and postmodern periods in their biographical, historical, and ideological contexts. Culture: Literature.
- ENGL 217 American Literature I** (2, F10)  
Surveys the developing American literary tradition from the age of European exploration and encounters with Native American cultures through the Civil War. Emphasis on Puritan thought, deism, Romanticism, and Transcendentalism. Close reading of primary texts. Culture: Literature.
- ENGL 218 American Literature II** (2, F10)  
Survey of significant figures in American literature from the Civil War to the present. Emphasis on the emergence of realism, the development of naturalism, the rise of literary modernism, and new directions in the late 20<sup>th</sup> and 21<sup>st</sup> centuries. Culture: Literature.
- ENGL 311 Literature in the Age of Shakespeare** (4, F11)  
Poetry and prose from More to Milton (excluding Shakespeare). Attention given to political, historical, religious background. Emphases on Spenser, Milton, and the 17th century devotional poets.
- ENGL 312 Literature in the Age of Enlightenment** (4, S12)  
Significant European and English writers from 1660-1800. Attention to the ideas of Enlightenment and to neoclassical forms, with emphasis on satire, comedy, manners, literary criticism, contes philosophique, and the rise of the novel.
- ENGL 313 Romanticism in Literature and Culture** (4, F11)  
Study of Romanticism as a European phenomenon, with emphasis on the impact of Romantic ideas and literary trends on British writers working between 1780 and 1848.
- ENGL 314 Victorian Literature and Culture** (4, F10)  
Literature of the Victorian period in the context of selected intellectual, artistic, and popular culture movements.
- ENGL 315 Modern and Contemporary Drama** (4, S12)  
Emphasis on American and English drama from around 1900 to the present. Beckett and O'Neill as progenitors of significant theatrical trends such as realism, expressionism, and the absurd.
- ENGL 319 Modern and Contemporary American Poetry** (4, S12)  
American poetry from 1900 to present. Emphases on trends and selected major figures such as Eliot, Frost, Pound, Stevens, Williams, Oliver, Gluck, and Olds.
- ENGL 320 Modern and Contemporary British Poetry** (4, S11)  
British poetry from 1900 to present. Emphases on trends and selected major figures such as Hopkins, Hardy, Yeats, Auden, Thomas, Larkin, Heaney, and Duffy.
- ENGL 321 Modern and Contemporary English Fiction** (4, F11)  
An exploration of major trends in 20<sup>th</sup> and 21<sup>st</sup> century English fiction. Includes selected examples of the modern, postmodern, and post-colonial novel in the British Isles, from Joyce and Woolf to Byatt, Winterson, and Rushdie.
- ENGL 322 American Fiction** (4, F11)  
History and development of the American novel, with emphases on such writers as Melville, James, Dreiser, Cather, Fitzgerald, Hemingway, Faulkner, Baldwin, Pynchon, Kingston, and McCarthy.
- ENGL 334 The American Short Story** (4, OD)  
Development of the American short story from its beginnings with Irving, Poe, and Hawthorne to contemporary and postmodern practitioners such as Braverman, Gurganus, and Dubus.
- ENGL 335 Major Author:** (4, F&S)  
In depth study of one author. Comprehensive reading of primary works. May also include examination of influences. Authors that may be studied include Jane Austen, George Eliot, Nathaniel Hawthorne, Wordsworth, Tennyson, Emily Dickinson, T. S. Eliot, Yeats, and Virginia Woolf. Required of English majors.
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**ENGL 350 Major Author: Shakespeare** (4, S11)  
Survey of significant examples of Shakespeare's histories, comedies, tragedies, and some poetry. Biographical, historical and critical background; emphasis on close reading of texts. Strongly recommended for Adolescence Education/English majors.

**ENGL 353 Internship for English Majors** (4, OD)  
Opportunities for off-campus experiences investigating a career option in fields other than teaching, such as advertising, government service, industrial publications, and library science.

**ENGL 355 Modern English Grammar in Historical Perspective** (4, OD)  
Focuses on traditional English grammar and the historical principles on which grammatical analysis is based. Emphasis placed on understanding the language system of grammar, its historical origins and development, grammatical theory, and the conventions of American English usage. Strongly recommended for Adolescence Education/English majors.

**ENGL 361 Contemporary World Literature** (4, F10)  
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** (1, 2, 3, or 4, OD)  
Study of issues, literary figures, or problems not covered elsewhere in the curriculum. Such topics may include literature by women, postcolonial literature, African American literature, immigrant literature, and British or American Contemporary literature.

**ENGL 412 Literary Criticism** (4, OD)  
Theoretical and practical study of the principles of criticism. Emphasis on contemporary critical schools. Brief historical survey. Prerequisite: eight hours of literature above ENGL 200.

**ENGL 418 Senior Capstone: Seminar** (4, F/S)  
Intensive study of literary topics culminating in a substantial seminar project. Class presentations. Library research. Engagement with critical methodologies. May also be taken as the 318 level. Courses may include: American Romantics, Modern and Postmodern Quest Narratives, Literature in the Age of Milton, Text and Image in the 19<sup>th</sup> Century, and Prize-Winning Literature and the Formation of Literary Canons. By permission of instructor only.

**ENGL 291, -2; 391, -2; 491, -2 Independent Study** (1, 2, 3, or 4)

**ENGL 496 Honors in English** (4)

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## Environmental Science/ Environmental Studies

**Department of Biology:** Matthew K. Pelletier, chair. Keith A. Horn, Associate Dean

**Faculty:** Ronald J. Oakerson, Robert B. Smalley, James M. Wolfe, others as determined by chair

**Web site:** [www.houghton.edu/academics/programs/biology/major\\_env2.htm](http://www.houghton.edu/academics/programs/biology/major_env2.htm)

**Phone:** 585.567.9280

### Biology with Environmental Emphasis major (BA, BS)

For students wanting to major in environmental science, we recommend the environmental emphasis track within the biology major (see BIOLOGY). The major builds upon a strong field curriculum (including options of off-campus courses and programs in Africa and Alaska) and prepares students to take the New York state civil service exam for application as a conservation biologist with the NYS Department of Environmental Conservation as well as those planning on further graduate study.

Environmental Stewardship minor

The environmental stewardship minor provides background for students who plan careers that intersect with environmental issues. The minor is supradisciplinary.

Required courses:	
BIOL 214	Wildlife Biology or
BIOL 215	Local Flora and Vegetation*..... 4
BIOL 475	Environmental Stewardship Senior Seminar ..... 1
ESCI *	..... 4
REC 401	Natural Resource Management .....4
Total: .....13	

\*Biology majors with environmental emphasis (where such courses are duplicated or superseded) would substitute Atmospheric Science (ESCI 224), and World Regional Geography (POLS 210).

Recommended courses: BIOL 105 Conservation Biology (4); an internship or independent study with environmental management is strongly recommended (1-2).

Equestrian Studies (minor)

(for major in Equestrian Studies see Recreation with Equestrian Studies Option)  
**Department of Environmental Recreation and Equestrian Studies:** Thomas R. Kettelkamp, chair. Marcus W. Dean, Associate Dean  
**Faculty:** Andrea N. Boon, Jo-Anne O. Young  
**Web site:** www.houghton.edu/academics/programs/recreation  
**Phone:** 585.567.8142

Equestrian Minor: 16 hours

A minor in Equestrian Studies will equip students with a broad base of knowledge in classical horsemanship encompassing theory and philosophy, riding, the teaching of riding, and care of the horse and cultivate Christ-like character enabling them to become effective servant-scholars.

REC 222	Leisure, Work and Society..... 4
HRSM 223	Foundations of Equestrian Studies ..... 4
HRSM 224	Riding Instructor Certification ..... 3
Equestrian electives (HRSM 200 or above) .....5	

**Note:** no more than eight hours of HRSM courses may be counted towards graduation for students not majoring in Recreation with the equestrian option or minoring in equestrian studies.

COURSE DESCRIPTIONS

*ALL equestrian courses have fees. HRSM 113 and HRSM 114 have a single fee; others have double fees.*

**HRSM 113 Horsemanship I** (1, F&S)  
Fundamental skills in hunt seat, dressage, and/or western riding, according to student background or interest. Riding portion of grade based on mastery of basic skills. One riding lab per week; written final. Health and Wellness: Point 4.

**HRSM 114 Horsemanship II** (1, F&S)  
Building upon fundamental skills and expanding knowledge of hunt seat, dressage, and/or western riding, according to the students background or interest. Riding portion of grade based on mastery of basic skills. One riding lab per week; written final. Prerequisite: HRSM 113 or permission. Health and Wellness: Point 4.

**HRSM 223 Foundations of Equestrian Studies** (Activity Lab) (4, S)  
Principles of horse management, stable design, equestrian competition, and recreation management, and

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improvement of riding skills in hunt seat and stock seat, in the arena and on trails.

**HRSM 224 CHA Riding Instructor Certification** (3, M)  
Camp Horsemanship Association (CHA) curriculum: CHA clinic and horsemanship teaching certification. Teaching and equitation skills in ring and trail riding of hunt and stock seat. Horsemanship teaching practicum. Prerequisite: HRSM 114 and HRSM 223 or permission.

**HRSM 230 Basic Western Riding** (2, F)  
Philosophy and techniques of western riding needed for ranch work, and basic western competitions. Prerequisite: HRSM 113 or permission.

**HRSM 235 CHA Instructor of Riders with Disabilities Certification** (1, M)  
Certified Horsemanship Association (CHA) curriculum: CHA clinic and instructor of riders with disabilities (cognitive and physical) certification. Prerequisite: HRSM 224 or permission.

**HRSM 240 Teaching Riding in Bolivia** (2, OD)  
Combines teaching with intercultural experience in a missions outreach setting. Students will teach riding in Club Hipicos in and around the city of Santa Cruz and at Monte Blanco Christian Camp and Conference Center. Knowledge of Spanish is helpful but not essential. Prerequisite: HRSM 224 or permission.

**HRSM 276 Dressage** (2, F&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. Prerequisite: HRSM 114 or permission. Health and Wellness: Point 4.

**HRSM 323 Eventing** (2, F)  
History and philosophy of the sport of eventing, current rules, and riding techniques (three-phase horse trials; includes fundamentals of dressage, cross-country galloping and jumping, stadium jumping techniques). Prerequisites: HRSM 276 and HRSM 325, or permission. Health and Wellness: Point 4.

**HRSM 324 Principles of Training** (2, F)  
Foundations of training the young horse and re-training the problem horse. Students work with the actual training of a young horse, utilizing classical principles, philosophy, methodology. Prerequisite: HRSM 276 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 114 or permission. Health and Wellness: Point 4.

**HRSM 326 Horsemanship: Jumping II** (2, S)  
Building skills, refining techniques, and expanding technical knowledge learned in HRSM 325. Prerequisite: HRSM 325 or permission.

**HRSM 327 Mini-Prix Jumping Equitation** (2, S)  
Riding jumper seat equitation and showing hunters and jumpers; learning principles, practices, and philosophy of course design for the various classes and competitions for jumpers. Prerequisite: HRSM 326 or permission.

**HRSM 337 Adventure Trails Riding and Guiding** (2, OD)  
Students build skills and knowledge researching potential trail riding sites, training horses for trail riding, and guiding clients on trail rides. Involves multiple off campus field trips. Prerequisite: HRSM 114 or permission.

**HRSM 328 Horse Show Judging** (2, F11, 13)  
Lectures and field trips incorporating judging assignments for learners; understanding the duties of the judge; using good judging to educate riders. Prerequisites: HRSM 276 and HRSM 325 or permission.

**HRSM 334 Competition Dressage** (2, F)  
Builds on foundation laid in HRSM 276 and guides students into the next two levels towards FEI. Prerequisite: HRSM 276 or permission.

- HRSM 421 Musical Freestyle Dressage

(2, S)

Combines a solid foundation in classical dressage with the artistry of choreography and music. Prerequisite: HRSM 334 or permission.
- HRSM 295, 395, 495 Special Topics

(2 or 3, OD)

Courses may be taught relative to special topics in horsemanship, such as riding for the disabled, CHA trail guide certification, CHA instructor of riders with disabilities certification, western reining, etc.

Family Studies (minor)

Department of Psychology and Sociology: Paul D. Young, chair and Associate Dean

Web site: [http://www.houghton.edu/academics/programs/psychology\\_sociology/minor\\_family\\_studies.htm](http://www.houghton.edu/academics/programs/psychology_sociology/minor_family_studies.htm)

Phone: 585.567.9440

**Minor:** 16 hours

The family studies minor is an interdisciplinary program, combining the fields of anthropology, sociology, psychology, and religion. Special topics in other disciplines are also offered according to interest and demand. The minor is designed to provide students with adequate knowledge and skills needed for professional careers in human services and leadership roles in the church, family, and community, in addition to preparing students for further education in Family Studies and related areas.

Required courses:	
PSY 230	Lifespan Development of the Family ..... 4
SOC 237	Introduction to Marriage and Family Studies ..... 4
Eight hours selected from:	
PSY 325	Human Sexuality ..... 4
PSY 426	Family Systems Theory ..... 4
SOC 330	Culture and Family..... 4
SOC 362	Gender Relations..... 2
SOC 390	Practicum in Family Studies ..... 1-4
SOC 297	Special Topics Courses ( <i>pre-approved by department chair</i> )2 or 4
SOC 394	Internship in Family Studies.....4-6
THEL 337	Theological Foundations of the Family ..... 4

COURSE DESCRIPTIONS

See Psychology, Sociology, Theology, and Anthropology.

Foreign Languages (majors and minors)

Department of World Languages and Literatures: Marlene G. Collins-Blair, chair.

Marcus W. Dean, Associate Dean

Faculty: Marlene G. Collins-Blair, Marcus W. Dean, David Kinman, Jean-Louis Roederer

Part-time Faculty: Gudrun M. Stevenson

Web site: [www.houghton.edu/academics/programs/world\\_languages](http://www.houghton.edu/academics/programs/world_languages)

Phone: 585.567.9670

**General Information:**

In today's global society, linguistic isolation has serious consequences for the economic, social and political health of our nation, but even more, it impedes obeying the Commission to go into the world with the message of the Gospel. We seek, therefore, to provide an exciting intellectual environment which facilitates mastery of foreign languages and their related cultures, history, literature, and linguistics. Our graduates pursue a variety of careers such as teaching, international banking, law, social work, diplomacy, missions and Bible translation.



Majors are required to spend one semester off-campus in a study program in the target language. Study-abroad programs are available in France, Canada, Spain, Columbia, Guatemala, Costa Rica, Germany and Austria. The program and courses need to be approved by the student's academic advisor. Majors are required to take INCL 211 Intercultural Transition before the off-campus program. Normally, native speakers of French or Spanish are not admitted to the conversation courses for credit.

- Spanish Major:** (36-45 hours)
- French minor:** 16 hours beyond FREN 102. It may also include FREN 205 Intermediate French.
- Spanish minor:** 16 hours beyond SPAN 102. It may also include SPAN 205 Intermediate Spanish.
- German minor:** 16 hours beyond GERM 102. It may also include GERM 205 Intermediate German.

**CDRP: Cross-disciplinary Research Project** - A collaborative effort between the World Languages Department and select academic disciplines, allowing qualified students to enrich their studies in both areas through a joint research project. Consult the World Languages Department for specific guidelines and eligibility requirements.

**SPANISH**

The Spanish major consists of 36-45 credit hours. Students are required to take a semester off campus in a Spanish speaking country. The program and courses will need to be approved by your academic advisor.

Prerequisites: (12 hours) <i>(These may be met through placement testing or previous work.)</i>	
SPAN 101	Spanish Level 1..... 4
SPAN 102	Spanish Level 2 ..... 4
SPAN 205	Intermediate Spanish ..... 4
Required Core Courses: (20 hours)	
SPAN 301	Spanish Communication ..... 4
SPAN 305	Spanish Phonetics ..... 4
SPAN 350	Advanced Spanish Grammar and Composition ..... 4
SPAN 407	Hispanic World Cultures ..... 4
INCL 211	Intercultural Transition ..... 0-1
SPAN 485	Senior Seminar: Spanish ..... 4
Open Options: (12-16 hours) <i>(Must take at least one course in Latin-American Literature from the following.)</i>	
SPAN 423	Masterpieces of Latin-American Literature ..... 4
SPAN 412	Latin American Human Rights Narratives ..... 4
SPAN 418	Latin American Boom Literature ..... 4
SPAN 415	Evita and Her Sisters: Women in Latin American Lit ..... 4
<i>(Must take at least one course in Spanish Peninsular Literature from the following.)</i>	
SPAN 401	Survey of Spanish Literature ..... 4
SPAN 402	Spanish Literature and Film ..... 4
SPAN 417	Female Voice in Spanish Literature ..... 4
SPAN 416	Eve and Mary in Spanish Literature ..... 4
Other Open Options:	
SPAN 311	Hispanic World Current Affairs ..... 4
SPAN 312	The Latino in the U.S. .... 4
SPAN 410	Advanced Conversation: Film and Culture ..... 4
SPAN 414	Faith and Society in Latin America ..... 4
SPAN 207/346	Aspects of Costa Rica Mayterm ..... 4
SPAN 481	Spanish Honors Internship ..... 4
SPAN 391	Spanish Independent Study ..... 1-4
SPAN 496	Honors in Spanish ..... 4
Study abroad electives	..... 1-4

**Teaching Spanish – Inclusive Childhood (Elementary) or Adolescence (Secondary) Education:** See Education section in this catalog.

German minor: 16 hours beyond GERM 102.

Recommended courses:

GERM 205	Intermediate German .....	4
GERM 301	Conversation & Readings .....	4
Study abroad (summer program) .....		8

**Or**

GERM 205	Intermediate German .....	4
Study abroad (full semester) .....		12

**Or**

GERM 205	Intermediate German .....	4
GERM 301	Conversation & Readings .....	4
Study abroad (summer program) .....		4
GERM 291, - 2; 391, -2; 491, -2 Independent Study .....		4

COURSE DESCRIPTIONS

**FRENCH**

FREN 101, 102 **French Level 1 and 2** (4, F, 101) (4, S, 102)  
Development of the skills of comprehending, speaking, reading, and writing French. FREN 102: Competency: Foreign Language.

FREN 204 or 315 **Paris: Capital of French Culture** (4, May)  
3-week course in Paris. Daily lecture-visits and excursions to places of cultural interest in Paris and its environs. Language instruction and a long and short paper required for integrative studies or minor credit. Cost: check with professor.

FREN 205 **Intermediate French** (4, F)  
Bridges the gap between beginning-level and advanced courses. Attention is paid to vocabulary, reading strategies, writing skills, and conversation. Grammar review and enhancement are part of the course.

FREN 301**Conversation and Grammar I** (4, S)  
Intensive practice in speaking French. Oral discussions and reports based on contemporary readings. Prerequisite: FREN 205 or equivalent. Students who have completed FREN 305 and above must obtain permission of instructor.

FREN 305 **French Phonetics** (4, S11)  
Designed for the English-speaking student, this course stresses corrective measures for difficulties arising from Anglo-American pronunciation habits. Prerequisite: FREN 301 or equivalent or permission of instructor.

FREN 321 **Masterpieces of French Literature** (4, S13)  
Masterpieces of French literature from its beginnings through the 20th century. Readings from anthologies and/or selected completed works from the period. Prerequisite: FREN 301 or permission of instructor.

FREN 350 **Advanced French Grammar and Composition** (4, F11)  
A study of advanced grammar concepts and style. Extensive practice in writing in different styles and time frames. Prerequisite: FREN 301 or equivalent.

FREN 395 **Special Topics** (4, F10)  
Study of literary and cultural topics not covered elsewhere in the curriculum. Prerequisite: FREN 301 or equivalent or permission of instructor.

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**FREN 421 French Civilization**

(4, F12)

Historical backgrounds and major contributions of France to contemporary culture. Prerequisite: FREN 301 or equivalent or permission of instructor.

**FREN 461 Advanced French Conversation: Current Events**

(4, S12)

Intensive oral practice with a focus on current issues in Francophone countries. Prerequisite: FREN 301 or permission of instructor.

**FREN 391, -2; 491, -2 Independent Study**

(1, 2, 3 or 4)

**SPANISH****SPAN 101 Spanish Level 1**

(4, F)

Emphasizes the development of communicative competence in Spanish, bringing students to the novice-mid level of oral proficiency. At this level, communicative tasks are specifically focused on interpersonal and interpretive modes. Additional activities develop an awareness and appreciation of the variety of cultures of the Spanish-speaking world.

**SPAN 102 Spanish Level 2**

(4, S)

Emphasizes the development of communicative competence in Spanish, bringing students to the novice-high level of oral proficiency. At this level, students continue to develop their ability to communicate in interpersonal and interpretive modes. Additional activities develop awareness and appreciation of the variety of cultures of the Spanish-speaking world. Competency: Foreign Language.

**SPAN 111 Spanish for Human and Social Services I**

(4, OD)

**SPAN 112 Spanish for Human and Social Services II**

(4, OD)

Equips current and prospective workers in the human and social services fields with the skills and sensitivity for effective service to the needs of a Spanish-speaking clientele. Using task-based, practical applications, the course brings students the novice-high level of oral proficiency on the ACTFL scale. SPAN 112: Competency: Foreign Language.

**SPAN 121 Spanish for Educators I**

(4, OD)

**SPAN 122 Spanish for Educators II**

(4, OD)

Focuses on acquisition and development of Spanish for current and prospective elementary and secondary school educators, particularly TESOL professionals, school administrators, nurses and coaches who need to interact with Spanish-speaking students and their families. Uses Spanish in context with practical applications, brings students to the novice-high level of oral proficiency, and deepens understanding of the cultural perspectives of Spanish-speaking areas. SPAN 122: Competency: Foreign Language.

**SPAN 131 Spanish for Business and Finance I**

(4, OD)

**SPAN 132 Spanish for Business and Finance II**

(4, OD)

Focuses on building the vocabulary and communicative skills needed to communicate with (potential) Spanish-speaking partners and clientele. Uses Spanish in context with practical applications, brings students to the novice-high level of oral proficiency, and deepens their understanding of the cultural norms of the business culture in the Spanish-speaking world. SPAN 132: Competency: Foreign Language.

**SPAN 141 Spanish for Health Professionals I**

(4, OD)

**SPAN 142 Spanish for Health Professionals II**

(4, OD)

Promotes acquisition and development of communicative skills in Spanish for current and prospective healthcare professionals. Using task-based, practical applications, enables students to communicate in Spanish regarding matters of diagnosis, symptoms and treatment; brings students to the novice-high level of oral proficiency and deepens their understanding of the cultural perspectives that inform the healthcare practices among Spanish-speaking populations. SPAN 142: Competency: Foreign Language.

**SPAN 205 Intermediate Spanish**

(4, F)

Bridges the gap between beginning-level and advanced courses. Attention is paid to vocabulary, reading strategies, writing skills, and conversation. Grammar review and enhancement are part of the course.

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**SPAN 207 or 346 Aspects of Costa Rica: Language, Culture, and People** (4, M)  
*(SPAN 207 fulfills SPAN 102; 346 fulfills conversational language requirement for Intercultural Studies majors and serves as an elective for the Spanish major or minor.)*

4-week service-learning experience in Costa Rica. Hosted in the homes of nationals. 2 weeks of intense language instruction in the "City of Flowers," Heredia. Opportunities for service, relationships, church involvement, excursions present a broad picture of life in Latin America. Prerequisite: SPAN 101 or equivalent. Cost: check with professor.

**SPAN 211 Ecotour in Honduras** (4, M)  
Students will have a third-world experience including a service project with Christian Camping International. Visits to national parks and Mayan Indian ruins. Activities include hiking, snorkeling, and attending cross-cultural classes. Check with professor for cost above tuition. *(Fulfills SPAN 102).*

**SPAN 301 Spanish Communication** (4, S)  
Exercises, dialogue, readings, discussions and oral practice improve ability to comprehend and communicate in Spanish. Prerequisite: SPAN 205 or equivalent, or permission of instructor.

**SPAN 305 Spanish Phonetics** (4, S)  
A survey of pronunciation problems, designed to help the English speaker develop an accurate pronunciation of Spanish. Introduction to the phonetic alphabet and to basic concepts of linguistic science. Extensive oral practice. Prerequisite: SPAN 301 or permission of instructor.

**SPAN 311 Hispanic World Current Affairs** (4, OD)  
Discussion of key topics and current debates and culture issues in the Spanish-speaking countries of Latin America, Spain and Equatorial Guinea through non-literary texts and other media, including cinema, art, television, radio, the Internet, and popular music. Students will develop their oral and written skills in Spanish, and build a cultural vocabulary and understanding. Prerequisite: SPAN 301 or permission of instructor.

**SPAN 312 The Latino in the U.S.** (4, OD)  
Explores the historical process that led to Latino migrations to the US and examines themes of cultural and national identity in major works of literature and media created by Latino writers in the US. The goal is to identify the economic, political, social, and cultural conditions of the Latino in the US society. Prerequisite: SPAN 301 or permission of instructor.

**SPAN 350 Advanced Spanish Grammar and Composition** (4, S)  
A comprehensive course in structure and usage. Prerequisite: SPAN 301 or equivalent or permission.

**SPAN 395 / 495 Special Topics** (4, OD)  
Topics not covered in-depth elsewhere in the curriculum: Latino migration to the U.S., human rights in Latin America, the Afro-Hispanic diaspora, and popular culture in the Hispanic world. Prerequisite: SPAN 301 or equivalent, or permission.

**SPAN 401 Survey of Spanish Literature** (4, F11)  
Representative works of Spanish Peninsular literature from the pre-medieval *jarchas* to contemporary times. Prerequisite: SPAN 350 or permission of instructor.

**SPAN 402 Spanish Literature and Film: Twentieth Century - Present** (4, S12)  
Emerging structures of gender, class and nationality in contemporary Spain, examining the multiple ways identity is culturally and historically inscribed through political, sexual and social movements. Prerequisite: SPAN 350 or permission.

**SPAN 407 Hispanic World Cultures** (4, S)  
Survey of the Spanish-speaking cultures of the World. Following a historical framework, students will learn about the history and culture of Spain and its global influence in the 1500's. Select countries and cultures will be studied by focus on key historical and cultural developments, attention will be given to significant indigenous culture. Along with history, areas of society, culture, arts, and literature will be surveyed. Prerequisite: SPAN 350 or permission of instructor.

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- SPAN 410 Advanced Conversation: Film and Culture** (4, OD)  
Examines the ways in which films of Spain and Latin America reflect, represent or problematize questions of national identity and gender, and the extent to which films engage with and subvert social realities and other cultural forms. How each film addresses, or does not address, specific national concerns, especially urban issues such as delinquency, violence and corruption, will serve as a springboard for oral discussions. Prerequisite: SPAN 350 or permission.
- SPAN 412 Latin American Human Rights Narratives** (4, OD)  
Examines testimonial narratives from Spanish-speaking Latin America in the last 30 years and the uses of memory and narration in bearing witness to human rights abuses, oppression, systematic killings, repression and violence. Explores the historical context of these accounts and the similarities and differences they present in their structure and narrative voice as well as specific political and social concerns and their effect on today's society. Prerequisite: SPAN 350 or permission of instructor.
- SPAN 414 Faith and Society in Latin America** (4, OD)  
A historical examination of the role of the Catholic Church in the life of the people and society in Latin America and its particular expressions of faith and practice. There will also be a study of the impact of Protestantism over the past century in Latin America as well as some attention to non-Christian groups and practices. Prerequisite: SPAN 350 or permission of instructor.
- SPAN 415 Evita and Her Sisters: Women in Latin America Lit** (4, OD)  
Exploration of the historical/mythical female as portrayed, manipulated, or rewritten. Students discuss the discursive strategies and representational codes of the Latin American Woman Icon and investigate how historical, political, or religious female figures are continuously reshaped to conform to the cultural demands of each particular historical moment. Prereq: SPAN 350 or permission.
- SPAN 416 Eve and Mary in Spanish Literature** (4, OD)  
Examines the construction of representative erotic themes and motifs as contrasted to the development of moral and religious ones. It will consider the tensions between religious identity, reason, spiritual experience and eroticism in literature from Spain. The works of Jewish, Muslim, and Christian authors from pre-modern Spain, the mystics of the Siglo de Oro, as well as contemporary authors will be studied. Prerequisite: SPAN 350 or permission of instructor.
- SPAN 417 Female Voice in Spanish Literature** (4, OD)  
Examines the persistent attempts of female-authored texts to subvert, challenge, or transgress the patriarchal limitations placed on women by the traditional roles and spaces assigned to them in society. It will explore their dissenting voices across different times, spaces, and genres. Special consideration will be paid to questions about voice and writing, body, desire, sexuality and madness. Prerequisite: SPAN 305 or permission of instructor.
- SPAN 418 Latin American Boom Literature** (4, OD)  
The Latin American 'Boom' in Literature occurred during the 1960s and 1970s when Latin American Literature burst onto the world literary stage at the pen of writers such as Gabriel Garcia Márquez, Carlos Fuentes and Mario Vargas Llosa. The novel in particular flowered during this era and will be our focus of exploration and adventure. Pre-requisite: SPAN 350 or permission of instructor.
- SPAN 423 Masterpieces of Spanish-American Literature** (4, S11)  
Selected readings from outstanding Spanish-American authors representing different countries, periods and genres. Prerequisite: SPAN 350 or permission of instructor.
- SPAN 481 Spanish Honors Internship** (4/4, F&S)  
Experience in a college class. Assist a professor in an intermediate class 3 days a week. Introduction to prevailing methods of instruction. Prerequisite: French major, instructor permission. Priority to upperclassmen and education students.
- SPAN 485 Senior Capstone: Spanish** (4, S)  
This final course in the major allows students to demonstrate mastery of Spanish and integration of their knowledge of related cultures, history, literature, and linguistics. Significant research paper or project, port-

folio demonstrating the process of their learning, presentation, and a final project. Prerequisites: Senior, department chair approval.

SPAN 191, -2; 291, -2; 391, -2; 491, -2 **Independent Study** (1, 2, 3, or 4)

SPAN 496 **Honors in Spanish** (4, S)

**GERMAN**

GERM 101, 102 **German Level 1 and 2** (4/4, F&S)

Introduces and develops the skills of comprehending, speaking, reading and writing German, with particular attention to pronunciation and intonation. Also introduces students to the cultures and histories of German-speaking countries. GERM 102: Competency: Foreign Language.

GERM 205 **Intermediate German** (4, OD)

Bridges the gap between beginning-level and advanced courses. Attention paid to building vocabulary, developing reading strategies, improving writing skills, and facilitating conversation. Includes grammar review and enhancement.

GERM 301 **German Conversation & Readings** (4, OD)

Intensive practice in speaking German. Oral discussions and reports based on contemporary readings. Prerequisite: German 205 or equivalent or permission of instructor.

GERM 395, 495 **Special Topics** (1-4, OD)

GERM 191, -2; 291, -2; 391, -2; 491, -2 **Independent Study** (1, 2, 3 or 4)

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**Forestry** (emphasis within the Biology major, minor)  
**Department of Biology:** Matthew K. Pelletier, chair. Keith A. Horn, Associate Dean  
**Faculty:** faculty from SUNY-ESF Ranger School  
**Web site:** [www.houghton.edu/academics/programs/biology/forestry.asp](http://www.houghton.edu/academics/programs/biology/forestry.asp)

In a world of increasing human effects on world ecosystems, stewardship of forest resources is increasingly important, from ecological, aesthetic, and economic viewpoints. Deforestation in both tropical (tropical rain-forest and savannas), temperate and coniferous forest (forest fragmentation and logging in coniferous forests) regions has been in the headlines of popular media for some time. Houghton's programs capitalize on our present resources (a large forested main campus) and look to the future of mission organizations seeking out people with a background in forestry. The program, which includes a minor in forestry and a forestry emphasis within the biology major, is based on a cooperative agreement with the State University of New York – College of Environmental Science and Forestry using the Forest Technology program at the Ranger School based at Wanakena in the Adirondack Park. The Ranger School was established in 1912 and is one of the oldest forestry programs in the country leading to an A.A.S. degree in forest technology. It is supported by the strength and reputation of SUNY-ESF. The Forestry Technology program is a rigorous 48 credit hours taken over an extended year at the Wanakena campus. Graduates from the Ranger School program have gone on for advanced degrees in forestry, jobs in industry and wildlife management, as well as entered the Peace Corps.

Students have the option of taking fall semester at the Ranger School and transferring back the credits for a forestry minor or spending the whole year (fall and spring semesters) receiving the A.A.S. degree from SUNY-ESF as well as the forestry minor. There are three options, based on ultimate educational and career goals.

General prerequisites (SUNY-ESF Ranger School requirements) required of all participants:

ECON 201	Introduction to Economics.....	2
ECON 210	Principles of Microeconomics <i>or</i>	
ECON 211	Principles of Macroeconomics .....	2

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Electives .....	6
BIOL 151/152 General Biology I and II .....	8
MATH 115 Introduction to Calculus.....	4
Writing courses .....	8
Total.....	30

**Option A** – Biology major who wants a forestry minor – fall semester

Forest Ecology (counts towards Houghton biology major) .....	4
Courses counting for the minor	
Dendrology .....	3
Introduction to Forest Measurement and Statistics .....	4
Spatial Analysis of Forest Resources.....	5
Total.....	12
Additional courses taken but <u>not</u> transferred back:	
Introduction to Surveying .....	4
Leadership and Forest Technology .....	4

**Option B** – Biology major who wants a forestry emphasis – fall and spring  
(courses count for Houghton biology major)

Dendrology (fall) .....	3
Forest Ecology (fall) .....	4
Silviculture (spring).....	5

These students will graduate with an A.A.S. in Forest Technology (SUNY-ESF Ranger School)

These students will take the fall courses indicated in Option A plus spring courses of:

Silviculture .....	5
Forest Inventory Practicum .....	2
Timber Harvesting, Transportation, and Utilization.....	5
Forest Protection .....	5
Intro to Wildlife and Recreation Management .....	4
Forest Management .....	3

**Option C** – non-Biology major who has the necessary prerequisites

- a) Can take the fall program as outlined in Option A and earn a forestry minor.
- b) Can take fall and spring programs as outlined in Option B, earns:
  1. Biology minor
  2. Forestry minor
  3. A.A.S. degree from SUNY-ESF Ranger School

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## French (see Foreign Languages)

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## General Science (major)

**Department of Physics and Earth Science:** Mark E. Yuly, chair. Keith A. Horn, Associate Dean

**Web site:** [www.houghton.edu/academics/programs/physics](http://www.houghton.edu/academics/programs/physics)

**Phone:** 585.567.9280

**General Science Major: BS** (49 hours)

### General Information

The general science major is made up of eight hours each in mathematics, biology, chemistry, physics, and earth science, eight or more hours additional concentration in one of the four science areas in courses numbered 200 or above, and a one-hour seminar.

The requirements for the general science major are as follows:

MATH 180	Calculus and Its Origins or	
MATH 181	Calculus I .....	4
MATH 182	Calculus II .....	4
PHYS 151, 152	General Physics I, II .....	8
BIOL 151, 152	General Biology I, II .....	8
CHEM 151, 152	General Chemistry I, II .....	8
ESCI 101	Physical Geology .....	4
ESCI Elective or PHYS 102	General Astronomy .....	4
BIOL/CHEM/PHYS/ESCI 480	Senior Capstone: General Science Seminar .....	1
	8 additional hours in Biology, Chemistry, Physics or Earth Science	
	in courses numbered 200 or above .....	8

COURSE DESCRIPTIONS

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

See Biology, Chemistry, Earth Science, Mathematics, and Physics sections.

History (majors and minor)

**Department of History and Political Science:** Peter C. Meilaender, chair. Paul D. Young, Associate Dean  
**Faculty:** A. Cameron Airhart, William R. Doezeema, David A. Howard, Meic Pearse  
**Web site:** [www.houghton.edu/academics/programs/history](http://www.houghton.edu/academics/programs/history)  
**Phone:** 585.567.9440

**History Major:** 36 hours  
This major consists of 36 hours in any history course numbered 200 or above. All majors must take the Senior History Seminar (HIST 481). The remaining 32 hours are elective, except that no more than two of the courses marked by an asterisk (\*) count toward the major. Transfer students have to take at least half of their major at Houghton - at least 16 hours of non-asterisk courses and no more than 8 hours of asterisk courses.

**Teaching History – Inclusive Childhood (Elementary) or Adolescence (Secondary) Education:** See Education section in this catalog.

General Information

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.

Augmented History Major: 38 hours

No more than two of the courses marked by an asterisk (\*) count toward the major.  
An augmented history major for certification at the secondary level consists of 38 hours as follows:

ECON 201	Intro to Economics .....	2
HIST xxx	American History .....	4, 4
HIST xxx	European History .....	4, 4
HIST xxx	Non-European, non-American History .....	4, 4



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POLS 220	American Political System.....	4
	Total.....	30
PLUS 8 hours in either		
HIST xxx	History Elective .....	4
HIST 481	Senior Capstone: Senior History Seminar .....	4
	or	
POLS xxx	Political Science Elective .....	4
	(Must be 300 or 400 level.)	
POLS 480	Senior Capstone: Senior Politics Seminar .....	4
	Total.....	8

**Minor:** The history minor consists of any 16 hours of history courses numbered 200 or above except that no more than one course marked by an asterisk (\*) counts toward the minor.

## COURSE DESCRIPTIONS

### HIST 101 **Western Civilization I: Ancient Civilization to 1650** (2, F&S)

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. Culture: History.

### HIST 102 **Western Civilization II: 1650 to the Present** (2, F&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. Culture: History.

### HIST 103 **Western Civilization: Science Honors I** (2, F)

Survey of western civilization from its cultural roots in ancient Near Eastern, Greek, and Roman civilizations, including the rise of early science, the Middle Ages, Renaissance, Reformation, and the age of discovery and expansion. Attention to analyzing primary source materials. Reserved for first-year Science Honors students. Culture: History.

### HIST 104 **Western Civilization: Science Honors II** (2, S)

Survey of western civilization from the rise of modern 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 Science Honors students. Culture: History.

### HIST 105 **Western Civilization: Ancient Civilization to the Present** (4, F, S)

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, the age of discovery and expansion, the rise of science, the Enlightenment, Industrial Revolution, nationalism and other ideologies, two World Wars, the Cold War, and post-Cold War culture. Attention to analyzing primary source materials. Culture: History.

## American History

### HIST 126 **New York State History** (4, OD)

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 220 **American History Survey** (4, F)

Overview of American history to the present. Culture: History.

### HIST/POLS 341 **Conceptualizing the City: An Exploration of the City in Western Culture** (4-6, F, S)

Explores the history of cities and the ideas that have shaped both their objective development – in terms of their material culture, their economic base, and their political structure – and our subjective experience

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of them. Also considers social science explanations of urban development (why cities?), 20<sup>th</sup> century trends (suburbanization, metropolitanization) and reactions to them, and ponders the future of cities in the 21<sup>st</sup> century. Reading ranges over works of history, philosophy, literary fiction, and social science. Throughout, connections to the Buffalo experience provide concrete (sometimes literally concrete) illustrations of ideas and their effects.

**HIST 359 Colonial America, 1600-1788** (4, F)  
Settlement of North America with emphases upon religious and social developments as well as upon the American Revolution. Culture: History.

**HIST 360 Early National Period, 1788-1850** (4, S)  
Establishment of national political institutions and ideologies. Manifest Destiny, institution of slavery, antebellum revivalism and reforms, nascent industrialization. Culture: History.

**HIST 361 Civil War and Industrial America, 1850-1920** (4, F)  
Sectionalism and Civil War, Reconstruction, adaptation to accelerating industrialization and urbanization, and World War I. Culture: History.

**HIST 362 Recent American History, 1920 to Present** (4, S)  
Immigration, Depression and New Deal, World War II, Cold War, and resurgence of Evangelicalism. Culture: History.

### **European History**

**HIST 230 Medieval Europe** (4, F, S)  
A survey of European history and culture that begins with the transition from Roman civilization and ends with the cultural changes that resulted in the Reformation. Particular emphasis is given to the themes of western cultural formation, ecclesiastical development, monastic and lay spirituality, and the birth of fundamental western institutions. Primarily a reading course, primary sources are heavily relied upon. Culture: History.

**HIST 325 Europe in the 19th Century (CDRP, see Foreign Languages)** (4, F)  
Growth of liberal democracy, influence of industrial revolution and impact of nationalism. French Revolution to 1890. Culture: History.

**HIST 326 Europe, 1890-1945** (4, F)  
The changing intellectual climate, World War I, problems of inter-war period, challenges to democracy, background of World War II. Culture: History.

**HIST 332 History of Rome** (4, F)  
Survey of Roman history and cultures from the beginning of the republic until the disintegration of the empire, emphasizing political and religious developments. Culture: History.

**HIST 368 The Reformation** (4, F)  
A survey of the continental, English, and Roman Catholic reformation of the 16th century. Culture: History.

**HIST 370 Evangelical Roots** (4, F)  
Looks at Evangelicalism from the 1730s to the present, especially in Britain and America, where most of the movements originated and developed. However, attention is also paid to developments elsewhere, especially in recent decades, when African, Asian and Latin American churches have begun not merely to grow, but to foster innovations of their own, with wider effects.

**HIST 371 Religion, Fascism, and Communism in 20th Century Europe** (4, OD)  
Looks at the interaction between Christianity and the churches (evangelical, Protestant, Catholic and Orthodox) on one hand, and the totalitarian ideologies and regimes of twentieth-century Europe on the other. In the process, such ideas as nationhood, class, modernization and secularization are considered, along with their implications for Christian belief and practice, and the various possible, and actual, Christian responses to them.

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**HUM 401 Pagans and Christians: Ancient and Medieval Texts** (4, OD)  
Close analysis of some primary texts from ancient medieval times: Plato, Aristotle, Thucydides, Cicero, Augustine, Dante, et al. Develop scholarly skills of research, interpretation, writing; foster awareness of influence of such works on modern thought. Major/minor credit in history.

### **Regional History**

**HIST 223 Latin American History to 1800** (4, S)  
An introductory survey, with attention to cultural interaction during the colonial period. Culture: History.

**HIST 224 Latin American History since 1800** (4, F)  
An introductory survey of Latin America from the revolutionary era to the present. Culture: History.

**HIST 249 African History** (4, F)  
Sub-Saharan Africa from earliest times. Medieval empires of western Sudan, colonial rule, emergence of national states. Culture: History.

**\*HIST 251 East African History** (4, S)  
(See Off-Campus Programs section for course description.)

**\*HIST 355 East Asia: History and Politics** (4, F)  
Introduction to history and politics of East Asia from ancient time to present, with focus on China and Japan. Emphasis on historical and political developments in 19th and 20th centuries leading to founding of Communist China and new Japan.

**HIST 381 Historiography** (4, OD)  
History of historical writings and methods; theories of history.

**HIST 295, 395, 495 Special Topics (CDRP, see Foreign Languages)** (4, OD)  
Group study of selected topics; open only by permission.

**HIST 481 Senior Capstone: Senior History Seminar** (4, 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 4, OD)

**HIST 496 Honors in History** (4, OD)

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## **Honors Programs**

**HOUGHTON HONORS PROGRAMS:** Director: Kristina LaCelle-Peterson

This course of study occurs either in the spring semester (London Honors), in the spring semester and in Mayterm (East Meets West), or during the fall and spring semesters (Science Honors) for selected first-year students. The selection process is by invitation to qualified applicants. All students in the First Year Honors Program are expected to maintain at least a 2.5 GPA in order to continue in the program, and failure to do so will trigger review by the Academic and Student life deans and the director of the program.

**London** – Program Director: Linda Mills Woolsey

This course of study in the spring semester 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 20<sup>th</sup> century. London's museums, galleries, architecture and theater provide a rich and dynamic learning environment affording students a thorough preparation for more advanced study. Meets all of the IS Culture requirements (in History, Literature, Philosophy, and Fine Arts), as well as the Writing Competency.

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**East Meets West - Program Director: Meic Pearse**

This course of study in the spring semester and Mayterm focuses on the relationship between the “East” (Eastern Europe), the “Middle East,” and the “West”. Students take 12 hours on-campus (leaving room in their schedule for one other, non-honors course), and three hours during Mayterm in Eastern Europe. The course is co-taught by a church historian (Dr. Pearse), a political scientist, and a member of the English faculty. Meets IS requirements in Faith Foundation: Theology, Culture: History, Culture: Literature, Community: Political Science, as well as the Writing Competency.

**Science Honors – Program Director: Mark Yuly**

This course of study centers around the integrative, problem-based Science Honors course, which comprises a total of 12 hours of coursework and which is team-taught by faculty from biology, chemistry, physics, communication, and writing. The Science Honors course is supplemented by special sections of Western Civilization (2 hours fall and spring) and calculus (4 hours in the fall), as well as a philosophy course (4 hours) in the fall of the sophomore year. Meets the entire IS Creation requirement (including the Quantitative Literacy Competency) as well as the Writing Competency and IS requirements in Culture: History, Culture: Philosophy, and Community: Communication.

## COURSE LISTINGS

**INTS 152 Honors Study in London**

(16, 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. Competency: Writing; Culture: Art or Music; Culture: History; Culture: Literature; Culture: Philosophy.

**INTS 153 East Meets West**

(12, S & 3, M)

Combines a traditional humanities and social science curriculum with the opportunity to study the interaction of Eastern and Western culture. Integrating the disciplines of culture, literature, religion and politics, this course surveys the development of Western culture by focusing on the West’s historic interaction with the Orthodox and Islamic cultures of the Mediterranean, Eastern Europe, and the Mideast. The Mayterm trip to the Balkans provides a unique learning experience. Competency: Writing; Faith Foundation: Theology; Culture: History; Culture: Literature; Community: Political Science.

**INTS 154, 155 Science Honors I, II**

(3.5, F; 3.5, S)

Insights drawn from the disciplines of biology, chemistry, physics, writing, and communication are applied to understanding, communicating and solving a scientific question of societal importance. Classroom activities, which include lectures, laboratory experiments, writing, and speaking, are motivated by the students’ need for the specific information and skills required to reach a solution. Reserved for first-year Science Honors students. INTS 154 taken concurrently with INTS 156; INTS 155 taken concurrently with INTS 157 and INTS 159. Prerequisite: INTS 154 for INTS 155. Creation: Lab Science or 2<sup>nd</sup> Science.

**INTS 156, 157 Science Honors: Writing**

(1.5, 1.5, F/S)

Writing Component of INTS 154/155. **Reserved for first-year Science Honors students.** INTS 156 taken concurrently with INTS 154; INTS 157 taken concurrently with INTS 155 and INTS 159. Prerequisite: INTS 156 for INTS 157. Competency: Writing.

**INTS 159 Science Honors: Communication**

(2, S)

Communication component of INTS 155. **Reserved for first-year Science Honors students.** INTS 159 taken concurrently with INTS 155 and INTS 157. Community – Communication.

**HIST 103 Western Civilization: Science Honors I**

(2, F)

Survey of western civilization from its cultural roots in ancient Near Eastern, Greek, and Roman civilizations, including the rise of early science, the Middle Ages, Renaissance, Reformation, and the age of discovery and expansion. Attention to analyzing primary source materials. Reserved for first-year Science Honors students. Culture: History.

**HIST 104 Western Civilization: Science Honors II** (2, S)  
Survey of western civilization from the rise of modern 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 Science Honors students. Culture: History.

**MATH 183 Science Honors Calculus** (4, F)  
An accelerated study of calculus using a historical perspective. Investigates problems of motion, curvature, area and volumes, and the infinite that were first posed by the ancient Greeks. Explores the tools of limits, derivatives, integrals, and the infinite series that mathematicians developed to solve these problems in the late 1600s and 1700s. Reserved for first-year Science Honors students. Creation: Math.

**PHED 141 Walking for Wellness** (.5 or 1, S)  
Physical coordination and conditioning; basic skills; appreciation for physical activity and lifetime fitness in Christian Life. **For London Honors students.** Health and Wellness: Point 4.

**PHIL 203 Theism, Naturalism and the Sciences** (4, F)  
Detailed critical analysis of foundational issues in epistemology (how we know), metaphysics (the nature of reality), and ethics (character and values), with particular attention to methodological issues pertaining to the sciences, the nature and contours of a worldview, and the relationship between worldviews and the sciences. Reserved for Science Honors students. Culture: Philosophy.

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## Humanities (major)

**Department of Philosophy:** W. Christopher Stewart, chair and Associate Dean  
**Web site:** [www.houghton.edu/academics/programs/religion-philosophy/maj\\_humanities.htm](http://www.houghton.edu/academics/programs/religion-philosophy/maj_humanities.htm)  
**Phone:** 585.567.9440

**Major:** 34-45 hours  
The interdisciplinary major in humanities consists of an equal emphasis on courses selected from the departments of history, literature, and philosophy. The program encourages students to learn the methodologies of several disciplines, to trace interrelationship among disciplines, and to study common themes and issues from a variety of perspectives. Intensive and extensive study in the intellectual, social, and aesthetic movements of Western culture culminates in a senior project in which the student has the opportunity to synthesize some of the developments that he or she studies.

Students majoring in humanities often look toward careers in a wide variety of professional fields such as church-related ministry (pre-seminary), law, education (elementary, secondary, or college), linguistics/translation, missions, medicine, business, finance, counseling, government service, public administration, journalism, library science, relief work, or just about any other field of work. This major often 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, World Languages, Art, Music, Theology and Philosophy, is administered by the Department of Philosophy.

Major required courses:

Literature (one course may be in a modern foreign language).....	9-12
History .....	9-12
Philosophy .....	9-12
Art History or Music History.....	3-4
Elective (with consent of advisor) .....	3-4
Senior Capstone: Humanities Seminar .....	1

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## COURSE DESCRIPTIONS

**HUM 306 Varieties of Postmodernism** (3, OD)  
Interdisciplinary analysis of the many-faceted cultural phenomenon known as “postmodernism.” Moves from an initial starting point considering postmodernism as a reaction to various philosophical claims associated with modernity to the meaning and significance of postmodern ideas as they have been transposed into a variety of other contexts in the analytic humanities, literature, arts and sciences.

**HUM 395 Special Topics** (1, 2, 3, or 4)

**HUM 401 Pagans and Christians: Ancient and Medieval Texts** (4, OD)  
Close analysis of some primary texts from ancient medieval times: Plato, Aristotle, Thucydides, Cicero, Augustine, Dante, et al. Develops scholarly skills of research, interpretation, writing; foster awareness of influence of such works on modern thought. Major/minor credit in history.

**HUM 481 Senior Capstone: Humanities Seminar** (1, F, S)  
The student undertakes a directed studies project in which he or she produces a paper that synthesizes the historical, literary, and philosophical developments relevant to a selected theme or person.

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## Information Technology Management (major)

**Department of Business and Economics:** Kenneth J. Bates, chair. Paul D. Young, Associate Dean

**Faculty:** Kenneth J. Bates, Robert A. Black, Richard A. Halberg, Wei Hu, Daniel C. Minchen, Lois A. Ross

**Web site:** [www.houghton.edu/academics/programs/business/major\\_itm2.htm](http://www.houghton.edu/academics/programs/business/major_itm2.htm)

**E-mail:** [business@houghton.edu](mailto:business@houghton.edu)

**Phone:** 585.567.9440

**Major (BS):** 65 hours in the major (23 in the business core; 36 in the IT core; 6 in co-requisites)

### General Information

Information and the technology that puts it within reach are strategically significant resources in today's organization. When they are properly managed they can provide the organization with a distinct competitive advantage.

Recognizing both the value of these resources and the knowledge, skills, and understanding needed by the entry-level manager in this field, our program in information technology management (ITM) is designed to prepare graduates to meet this need.

Accordingly, the principal objective of the ITM program is two-fold:

- To develop the skill set necessary to analyze, design, and evaluate an organization's information technology systems, and
- To familiarize students with the leadership skills necessary to leverage the full potential of information technology and services in support of the organization's mission.

To this end, courses in the program present technical, economic, and behavioral dimensions of technology based information systems whose purpose is to support a firm's information and decision infrastructure. Throughout the program there is a great emphasis placed on “hands on” project related work using a variety of application development tools.

A significant difference the ITM program offers compared to most majors is that it is interdisciplinary in nature. It has been carefully crafted from existing courses in two departments, the Department of Business &

Economics and the Department of Math and Computer Science. The curriculum for this program is the work of a broadly based team of faculty in both departments and a consulting group of six professionals in the field. The result is a program consisting of the six-course business core, ten courses in IT, and three requirements in the college's Integrated Studies.

Note: this is an interdisciplinary major equivalent to a double major.

<b>Co-requisites:</b>		
BADM 45	Spreadsheet Competency .....	0
BADM 301	Business Communication .....	2
ECON 201	Intro to Economics .....	2
ECON 210	Principles of Microeconomics <b>or</b>	
ECON 211	Principles of Macroeconomics .....	2
	Co-Requisites total .....	6
<b>Business Core</b>		
ACCT 212	Managerial Accounting.....	3
BADM 212	Principles of Management.....	4
BADM 213	Business Law I <b>or</b>	
BADM 214	Business Law II .....	4
BADM 218	Marketing Principles.....	4
BADM 309	Statistics.....	4
BADM 417	Senior Capstone: Business Strategy and Policy .....	4
	Business Core total .....	23
<b>Information Technology</b>		
BADM 220	Advanced Computer Applications.....	4
CSCI 211	Programming I.....	4
CSCI 218	Programming II .....	4
CSCI 226	Computer Architecture.....	4
BADM 395	eCommerce.....	2
CSCI 236	Data Structures and Algorithms.....	4
BADM 317	Management Information Systems.....	4
CSCI 340	Databases.....	4
CSCI 420	Networking.....	4
BADM 421	Internship in Business .....	2
	Information Technology total .....	36

COURSE DESCRIPTIONS

See business administration and computer science sections.

Intercultural Studies (major and minor)

Department of Intercultural Studies: Marcus W. Dean, chair and Associate Dean

Faculty: Jonathan E. Arensen, Jan K. Buckwalter, Patrick L. Buckwalter, Marcus W. Dean, Richard K. Eckley, Andrew F. Gallman, Sherry W. Gallman, Benjamin L. Hege-  
man, Ndunge Kiiti, Eli Knapp, Don Little, Ronald J. Oakerson, Paul W. Shea

Web site: [www.houghton.edu/academics/programs/intercultural](http://www.houghton.edu/academics/programs/intercultural)

Phone: 585.567.9634

**Major:** (34-54 hours which includes a 26-30 hour core plus either eight hours of electives or one 20-hour concentration. The concentration options include: international development, Islamic Studies, linguistics, missions, urban studies, TESOL, Spanish, French.)

General Information

The mission of the Intercultural Studies major is to prepare Christians to respond to key problems of global concern in culturally relevant ways that follow kingdom principles. The major, drawing heavily on the methodologies and perspectives of anthropology and related social sciences, integrates the theory of cross-cultural development work with experiential learning in cross-cultural settings. This major will provide competence for students seeking to serve in such fields as community development, relief work, health services, education, missions, and Bible translation in developing countries and inner-city context.

Concentrations are optional. If a concentration is not selected, students will need to choose two electives (see choices below).

Students interested in Education with an Intercultural concentration, please see the Education section of this catalog.

Major required courses – 7 1/2 Courses

INCL 201	Introduction to Global Issues .....	4
INCL 243	Cultural Anthropology .....	4
INCL 310	Intercultural Competencies.....	4
INCL 311	Intercultural Experience.....	0-4
	Conversation-level Language.....	0-4
INCL 346	Governance and Development.....	4
INCL 350	Culture Change.....	4
INCL 482	Senior Capstone: Intercultural Seminar .....	2

Electives -- 2 Courses

Any course listed in the concentrations or listed but not taken as part of the core.

Business and Economics Department

BADM 313	International Business
ECON 212	International Economics

Foreign Language Department

Another 300+ level Foreign Language course

History and Political Science Department

HIST 223	Latin American History
HIST 249	African History
HIST 251	East African History
HIST 355	East Asia: History and Politics
POLS 357	Russia and the USSR: History and Politics
POLS 210	World Regional Geography
POLS 212	Social Science Research Methods
POLS 240	Comparing Nations

Greatbatch School of Music

MHS 254	Music of World Cultures
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Psychology and Sociology Department

SOC 293	East African Cultures
SOC 330	Culture and Family
SOC 338	The Sociology of Religion
SOC 361	Race, Gender and Environment

Social Science Methodology

SOC 309	Statistics
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Optional French Concentration - 16 hours

Students are expected to take FREN 301 Conversation and Grammar I as the conversation requirement for the INCL core.

Required Courses:

FREN 305	French Phonetics .....	4
FREN 421	French Civilization .....	4
FREN 461	Advanced French Conversation .....	4

Optional Course:

FREN 350	Advanced French Grammar and Composition.....	4
FREN 395	Special Topics.....	4

Or other French course approved by the chair of the Department of World Languages and Literatures. If the course is taken abroad or through Mayterm the total number of hours must equal or exceed 16. Courses taken abroad may be substituted for the required courses.



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### Optional International Development Concentration – 5 Courses

The International Development concentration equips students with the critical-analytical skills and contextual knowledge needed to understand and address practical problems of sustainable development anywhere in the world. The concentration is grounded in a Christian worldview and therefore pursues ideas and approaches to development that hold the promise of holistic transformation within communities and institutions, and seeks to correct the injustices associated with poverty, oppression, and inequality.

#### Required Courses:

INCL 338	Issues in Development .....	4
INCL 347	Communication for Development .....	4
POLS 212	Social Science Research Methods .....	4
POLS 345	Community Organization and Development .....	4

#### One optional course from list below

ECON 210	Principles of Microeconomics <i>and</i> .....	2
ECON 211	Principles of Macroeconomics .....	2
<i>(must take both)</i>		
INCL 236	Literacy, Culture and Development .....	4
INCL 345	Peacebuilding: Genocide and Religious Div. (Go ED).....	3
INCL 348	Foundations of Health Development .....	4
INCL 442	Globalization and Islamization .....	4

### Optional Islamic Studies Concentration – 5 Courses

This concentration aims at teaching students in three strategic locations: Houghton College, North Africa, and London, England. Students doing this optional concentration in Islamic Studies will be required to take Arabic language studies in an approved off-campus Arabic context. Options include DMG in Fez, Morocco, and the MESP in Cairo, Egypt. In addition to Arabic, students will take four core courses and choose one further elective. One core and one elective will be taught in London, England, both as Mayterm courses.

#### Required Courses:

INCL/MISS 360	Intro to Islamic Foundations .....	4
INCL/MISS 361	Engaging the Muslim World .....	4
INCL/MISS 322	History of Islamic Theology and Movements .....	4
INCL/POLS 353	War & Terrorism in the Middle East: History and Politics .....	4

#### One optional course from list below

INCL/MISS 440	Unorthodox & Folk Islam .....	4
INCL/MISS 441	Islam in North America .....	
INCL/MISS 442	Globalization & Islamization .....	
	Peoples and Cultures of the Middle East (CCCU: Middle East Studies)	

### Optional Linguistics Concentration – 20 hours

#### Required Courses:

LING 220	Introduction to Linguistics .....	4
LING 322	Phonetics .....	4
LING 323	Phonology I .....	4
LING 333	Grammar I .....	4

#### Special Interests: One course from list below

INCL 236	Literacy, Culture, and Development .....	4
LING 312	Sociolinguistics .....	
LING 350	First and Second Language Acquisition .....	
LING 351	Linguistics for TESOL .....	

### Optional Missions Concentration - 5 courses for 18-20 hours

#### Required Courses:

MISS 221	History of the Global Christian Movement .....	4
MISS 222	The Contemporary Church in Missions .....	4
MISS 341	Biblical & Theological Foundations of Missions .....	4
MISS 342	Contextualization in Missions .....	4

#### One elective: (3-4 hours) Under advisement choose from:

Any prefix MISS, LING, URMN, INCL or other 300 level or above course in the curriculum with permission. ....	3-4
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### Optional Spanish Concentration - 16 hours

Students are expected to take SPAN 301 Spanish Communication as the conversation requirement for the INCL core.

#### Required Courses:

SPAN 305	Spanish Phonetics .....	4
SPAN 407	Hispanic World Cultures .....	4

#### Optional Courses:

SPAN 311	Hispanic World Current Affairs .....	4
SPAN 312	The Latino in the U.S. ....	4
SPAN 350	Advanced Spanish Grammar and Composition .....	4
SPAN 410	Advanced Conversation: Film and Culture .....	4
SPAN 412	Latin American Human Rights Narratives .....	4
SPAN 414	Faith and Society in Latin America .....	4

Or other Spanish courses approved by the chair of the Department of World Languages and Literatures. If the course is taken abroad or through Mayterm the total number of hours must equal or exceed 16. Courses taken abroad may be substituted for the required courses.

### Optional TESOL Concentration - 16 hours

LING 220	Introduction to Linguistics .....	4
LING 351	Linguistics for TESOL .....	4
LING 350	First and Second Language Acquisition .....	4
LING 440	Theory and Practice of TESOL Methodology .....	4

### Optional Urban Studies Concentration - 19-20 hours

- Is holistic and community-focused,
- Works at multiple levels—family, neighborhood, city, metropolitan-area.
- Considers carefully the role of the church, and
- Is interdisciplinary, including theological, sociological, and political dimensions.

The coursework exposes students to diverse theoretical perspectives, engages them in analyzing real-world problems, blends reading and discussion with experience, including both service-learning and field research. In these ways, the concentration aims to prepare students to work and serve as Christians in urban contexts, whether vocationally or as engaged citizens.

#### Required courses:

POLS 212	Social Science Research Methods .....	4
URMN 212	Urban Ministry .....	4
URMN 350	The City in Biblical and Theological Perspective .....	4
POLS 328	Governing Urban Communities .....	4

#### One optional course from the following:

POLS 202	Immigration and Citizenship .....	4
SOC 222	Social Problems .....	4
URMN 250	Evangelism and Social Action in the Urban Context .....	3
MISS 342	Contextualization in Missions .....	4
CRFM 341, 342	Theological Explorations in Youth Cultures and Ministry I and II .....	2, 2

The student is to fulfill INCL 311 Experience in an Urban Setting in the US or abroad.

### Minor in Intercultural Studies - 4 courses

INCL 201	Introduction to Global Issues .....	4
INCL 243	Cultural Anthropology .....	4
INCL 310	Intercultural Competencies.....	4
INCL 311	Intercultural Experience.....	0-4

## COURSE DESCRIPTIONS

ANTH 195, 295, 395 **Special Topics** (1-4, OD)

ANTH 291, 391, 491 **Independent Studies** (1-4, OD)

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- ANTH/COMM 225 Intercultural Communication** (4, OD)  
Explores theory and practice of communicating interculturally. Recommended for those with an interest in international vocations, or working with ethnic or cultural groups within the United States.
- ANTH/SOC 293 East African Cultures** (4, S)  
(See course description in Off-Campus Programs — Tanzania section.)
- ANTH/SOC 296 Special Topics in Anthropology** (4, OD)  
Topics offered according to interest and demand.
- ANTH/SOC 315 Human Ecology** (4, F)  
Integrates knowledge from several disciplines and acts as a hybrid of social and natural sciences. Multiple case studies will be used with special attention to the basic concepts, concerns and methods of human ecology.
- INCL 201 Introduction to Global Issues** (4, F, S)  
Focuses on current global trends and issues. Students examine responsible alternatives seen from an interdisciplinary perspective based on biblical justice and mission. Topics include: poverty, disease, hunger, underdevelopment, illiteracy, corruption, climate change, environmental degradation, religious and ethnic conflict. Students examine responses by global Christians both individually and collectively. This is the entry level course for the Intercultural Studies major.
- INCL 211 Intercultural Transition and Adjustment** (1, F, S)  
Using the transition model for adjusting to another culture, the student is prepared to move into and adjust to another culture, and to gain a basic understanding of the culture. Cross-cultural communication, cross-cultural conflict, and cultural values are also examined as they relate to living and working in another culture. Required for Spanish and French majors (they may take the INCL 310 course) and encouraged for any student going on a study abroad experience. Is usually offered as a part of INCL 310 or may be offered as a course by itself in Mayterm.
- INCL/EDUC 236 Literacy, Culture, and Development** (4, S)  
This course focuses on schooling for ethnolinguistic minorities in an international comparative perspective. Drawing on case studies from a variety of countries in North America, Latin America, Africa, and Asia, students examine the rationales that motivate the “development” strategies of which education and language in education policies are a part and consider the roles that culture(s) and language(s) play in the schooling experience and educational outcomes of children and communities. The role of schooling as a primary focus of national and international development planning is considered.
- INCL/ANTH/SOC 243 Cultural Anthropology** (4, F)  
Cultural and social aspects of human behavior; comparison of cultures. Community: Anthropology.
- INCL/ANTH 310 Intercultural Competencies** (4, F, S)  
Explores the knowledge, attitudes, and skills for transitioning into, adapting to, working in, and functioning successfully in an intercultural context. Key topics include cultural values, intercultural communication, researching culture, being a change agent, dealing with conflict, and working with individuals from another culture. Prerequisite for INCL majors/minors: Introduction to Global Issues and Cultural Anthropology, or permission of instructor. Required for INCL 311.
- INCL/INTR 311 Intercultural Experience** (0-4, OD)  
A cross-cultural experience in an approved setting in an area of service related to student’s concentration or field of interest. Preliminary studies and research, the dynamics of living and serving, ongoing mentorship, and periodic reflection will result in the student completing a cultural profile, journal and summary paper on the experience. This experience may be linked to formal study-abroad programs, official internship affiliation, or pre-approved individual arrangements. **Note:** Please consult with INCL Department regarding requirements for this course before planning your experience. Prerequisite: INCL 310 Intercultural Competencies.
- INCL/EDUC 318 Intercultural Literacy and Development in Zambia** (4, M)  
This course will be an intense immersion experience in Zambia. There will be readings, lectures and discussions on historical background, the culture, social issues, the educational system, and faith-based develop-

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ment work. There will be visits and excursions to places of cultural interest. There will also be an opportunity for service learning. The primary service learning opportunity will be to provide literacy and numeracy tutoring to orphans and vulnerable children who have limited access to formal education.

**INCL 319 Intercultural Practicum**

(3, F, S)

This is a course offered by Go ED Africa faculty (an academic program of Food for the Hungry International). (This is taken when INCL 311 is not needed.)

**INCL/MISS 322 History of Islamic Theology and Movements**

(4, S 11, 13)

Following the death of Muhammad, issues of theological orthodoxy and governmental orthopraxy flourished in a context of conflict and growth. Students will appraise the historical developments of Muhammad's life and his revelations in the areas of theology, philosophy, jurisprudence, governance, literature, and culture. Relying on primary sources and historical disciplines, students will study the wide history of Islamic thought up until the OPEC crisis of 1973-74. Students will gain a confidence in grasping and discerning the many variants within the so-called unified Islamic ummah.

**INCL 338 Issues in Development**

(4, S)

Introduces students to key issues in the development field. Themes such as the environment, global health, conflict, poverty and globalization, will be examined for insights into topics including holistic development; asset based approaches and methods; social-economic issues; systems and structures (church, NGOs, international institutions, and governments); policy development; and monitoring and evaluation. Designed within an international development framework. Examines individual, community, and institutional issues.

**INCL 340 African Traditional Culture and Religion**

(3, F, S)

(See Off-Campus Programs – Go ED for course description.)

**INCL/MISS 342 Contextualization in Missions**

(4, OD)

Study of the interaction of the biblical message as it comes to life within a cultural context. The primary focus is on the church, but includes the broader understanding of the kingdom of God. Areas of study include theology, leadership, worship, ministry and kingdom living. Both past and present ideas of contextualization are covered.

**INCL 345 Peacebuilding: Genocide and Religious Diversity**

(3)

(See Off-Campus Programs – Go ED for course description.)

**INCL/POLS 346 Governance and Development**

(4, S)

A study of patterns of governance and politics typical of developing countries with an emphasis in relationships between governance and development.

**INCL 347 Communication for Development**

(4, S)

Examines the various theories, methods/approaches, and processes that are used in the development communication field. Case studies will be drawn from many development themes including global health (HIV/AIDS), agriculture, poverty and environment. Emphasis and focus will be on basic principles and values of development communication that challenge the dominant paradigm.

**INCL 348 Foundations of Health Development**

(4, S)

“Explores spiritual, historical, cultural, environmental, economic and political factors that often determine the health of individuals and populations. Case studies and experiences will be drawn from all regions of the world with a focus on interventions at community, national and international levels. Topics range from community health development principles, concepts of holism to national and international health policy and partnership issues.”

**INCL/ANTH/SOC 350 Culture Change and Its Effects on Traditional Societies**

(4, F)

Globalization is spreading rapidly around the world, and this is causing significant culture change to traditional societies. With a strong focus on history and case studies, this course will make students aware of what is happening and give them the theoretical knowledge to understand, empathize, and assist people who are wrestling with change. Pre- or Co-requisite: Cultural Anthropology.

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**INCL/POLS 353 War & Terrorism in the Middle East: History and Politics** (4, F12)

This course explores three phenomena: (1) war and terrorism in general and in the Middle East in particular; (2) the history & politics of this region (with forays into geography, religion, society, culture & economics); and (3) country-specific histories and politics. The course offers in-depth analyses concerning the religion and terrorism nexus, the Arab-Israeli conflicts and peacemaking, and the theory and practice of pacifism and just war.

**INCL/MISS 360 Introduction to Islamic Foundations** (4, S)

Muhammad's life and writings are the foundations of Islam. The Islamic faith will be appraised through a historical and primary source approach where students will read through the entire Qur'an in chronological fashion and a significant portion of the Hadiths. The students' mastery of Muhammad's life, of Quranic vocabulary and a confident grasp of Quranic theology will give them a strategic appreciation of Islamic history and the present global Muslim community issues. This course is a prerequisite to the others.

**INCL/MISS 361 Engaging the Muslim World** (4, S11, S13)

For over 1400 years, Islam and Christendom have frequently engaged in rival forms of civilization encounters and/or clashes: invasions, polemics, diplomacy, colonization, dialogue, commerce, and academic research, each according to the context of the era. Relying on comparative, historical and missiological methodologies, students will study the ever-changing yet often-repeated approaches to Muslims in chronological appearance and from various Christian communities: the Oriental churches, the Byzantine Orthodox churches, the Roman Catholic Church and the Protestant churches, with a special emphasis on the current Evangelical 'contextualized' approaches. Students will gain a strong confidence and learn wise diplomacy in sharing Jesus to Muslims in a wide variety of means. This course has a fee.

**INCL 381 Social Context for Community Development** (3, F, S)

(See Off-Campus Programs – Go ED for course description.)

**INCL/MISS 440 Unorthodox and Folk Islam** (4, S12)

Classical Islam is very resistant to creative theological variants within the Islamic ummah and brands them as deviant heresies, of which Folk Islam is the most common expression. Yet 'unorthodox' expressions, even so-called 'secular Islam', are far more prevalent forms of Islam among the youth and womenfolk than the orthodox interpretations, and Houghton students and graduates are far more likely to encounter these unorthodox expressions. This requires our students to grasp the diverse roots of widespread Islamic heterodoxy, syncretism, occult expressions, spiritual warfare, and secularism.

**INCL/MISS 441 Islam in North America** (4, S13)

The Islamic movements in North America are unique in being both very recent and limited to Afro-Americans and immigrants. That is changing given that international funding for a vibrant political Islam in America is among the strongest in emerging religions. Students will explore the various sociological expressions, their political aspirations and their texts. Special attention will be given to various Christian ministries to Muslims in North America.

**INCL/MISS 442 Globalization and Islamization** (4, S12)

Among the three most vibrant international movements in the emerging 21st century are Christianity, Islam and Globalization, and the most contested nexus are in the techno-secularized cities of the world. Students will focus specifically on the post-colonial conflicts and integration efforts of Muslims in the global communities, and the impact of Globalization on Islamic societies. Attention will be given to recent international clashes between globalized secularism and Muslims, various political and Christian responses and the need for a Christ-centered confident response to both Globalization and Islamization.

**INCL 482 Senior Capstone: Intercultural Seminar** (2, F, S)

Joint weekly discussion sessions of all senior majors aimed at reflection on critical broad principles and fine-tuning of abilities for intercultural service. Program faculty assumes team leadership and preparation of topics and format, and they each present a summary session on key issues for the entire seminar. Students each present an approved paper on area of interest stemming from studies and intercultural experience. Several weeks may be set aside for specific disciplines to meet separately for capstone discussions in their field.

INCL 291, 391, 491 <b>Independent Studies</b>	(1-4, OD)
INCL 195, 295, 395, 495 <b>Special Topics</b>	(1-4, OD)
Topics offered according to interest and demand.	

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# International Development (minor)

**Department of Intercultural Studies:** Marcus W. Dean, chair and Associate Dean

**Faculty:** Ndunge Kiiti, Paul W. Shea, Ron J. Oakerson

Web site: [www.houghton.edu/academics/programs/intercultural](http://www.houghton.edu/academics/programs/intercultural)

Phone: 585.567.9477

**Minor:** (15-16 hours)

The International Development minor equips students with basic critical-analytical skills and contextual knowledge needed to understand and address practical problems of sustainable development anywhere in the world. The minor is grounded in a Christian worldview and therefore pursues ideas and approaches to development that hold the promise of holistic transformation within communities and institutions and seeks to correct the injustices associated with poverty, oppression, and inequality.

Minor in International Development – 4 Courses

INCL 201	Introduction to Global Issues .....	4
INCL 338	Issues in Development .....	4
INCL 346	Governance and Development .....	4
One Optional course below:		

*Optional courses: (select one)*

POLS 212	Social Science Research Methods .....	4
ECON 210	Principles of Microeconomics <b>and</b> .....	2
ECON 211	Principles of Macroeconomics ( <i>must take both courses</i> ) .....	2
EDUC/INCL 236	Literacy, Culture and Development .....	4
INCL 345	Peacebuilding: Genocide and Religious Div. (Go ED) .....	3
POLS 345	Community Organization and Development .....	4
INCL 347	Communication for Development .....	4
INCL 348	Foundations of Health Development .....	4
INCL 350	Culture Change .....	4
INCL 442	Globalization and Islamization .....	3-4

**COURSE DESCRIPTIONS**

See Intercultural Studies and Political Science.

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# International Relations (major and minor)

**Department of History and Political Science:** Peter C. Meilaender, chair. Paul D. Young, Associate Dean

**Program Director:** B. David Benedict

**Faculty:** B. David Benedict, Robert A. Black, Marcus W. Dean, Peter C. Meilaender, Ronald J. Oakerson

**Web site:** [www.houghton.edu/academics/programs/political\\_science](http://www.houghton.edu/academics/programs/political_science)

Major: (37-42 hours)

Minor: (17-18 hours)

**International Relations Major:** The International Relations major is an interdisciplinary major drawing on the social sciences and history, and combining theory with experiential learning. It focuses on international politics, economics, and culture from a global perspective, and is thus complementary to the college's major in Intercultural Studies, which considers cross-cultural issues from an anthropological and local community perspective. The International Relations major is administered in cooperation with Houghton's Office of Off-Campus Programs. The introductory course for the major and minor is Introduction to International Relations, which is an introduction to international relations as a whole, including international politics, international economics, and other aspects of the world system.

Major requirements (37-42 hours):

Foundational courses:		
POLS 230	Introduction to International Relations .....	4
ECON 201	Introduction to Economics .....	2
ECON 211	Principles of Macroeconomics .....	2
Skills courses:		
Foreign Language .....		0-4
	<i>(Students must have FL instruction or demonstrated ability equivalent to 301.</i>	
POLS 212	Social Science Research Methods .....	4
INTR 310	Intercultural Competencies .....	4
	<i>(Intercultural Experience prerequisite)</i>	
Core courses: Students must complete four core courses.		
	<i>Choose 2 International Politics electives .....</i>	<i>8</i>
POLS 240	Comparing Nations .....	4
POLS 336	American Foreign Policy .....	4
POLS 345	Community Organization and Development .....	4
POLS 346	Governance and Development .....	4
POLS 437	International Law and Organization .....	4
POLS 468, 469	America and the World I, II .....	4
	<i>Choose one International Economics/Business elective .....</i>	<i>2</i>
ECON 210	Principles of Microeconomics .....	2
ECON 212	International Economics .....	2
ECON 237	Comparative Economic Systems .....	2
BADM 313	International Business .....	2
	<i>Choose one Regional History elective .....</i>	<i>3-4</i>
HIST 223	Latin American History to 1800 <b>or</b>	
HIST 224	Latin American History Since 1800 .....	4
HIST 249	African History .....	4
HIST 251	East African History .....	4
HIST 325	Europe in the 19 <sup>th</sup> Century <b>or</b>	
HIST 326	Europe, 1890-1945 .....	4
POLS 353	War & Terrorism in the Middle East .....	4
POLS 355	East Asia: History and Politics .....	4
POLS 357	Russia and the USSR: History and Politics .....	4
	Or a regional history course taught during the Intercultural Experience (3-4 hours)	
Capstone Courses .....		
INTR 311	Intercultural Experience .....	4
	<i>(In the geographic area of student's primary interest)</i>	
POLS 480	Senior Capstone: Politics Seminar .....	4

Minor: 17-18 hours, as follows:

POLS 230	Introduction to International Relations .....	4
ECON 201	Introduction to Economics .....	2
INTR 310	Intercultural Competencies .....	4

INTR 311	Intercultural Experience .....	4
3-4 hours from one of these categories: .....		3-4
A)	Regional History	
B)	International Politics	
C)	International Economics/Business ( <i>This requires 2 two-hour courses</i> ).	

## COURSE DESCRIPTIONS

**INTR/ANTH 310 Intercultural Competencies** (4, F, S)  
 Explores the knowledge, attitudes, and skills for transitioning into, adapting to, working in, and functioning successfully in an intercultural context. Key topics include cultural values, intercultural communication, researching culture, being a change agent, dealing with conflict, and working with individuals from another culture.

**INTR 311 Intercultural Experience** (4, F&S)  
 A cross-cultural experience in an approved setting in an area of service related to the student's concentration or field of interest. Preliminary studies and research, the dynamics of living and serving, ongoing mentorship, and periodic reflection will result in journaling and a final summary synthesis research paper. This experience may be linked to formal study-abroad programs, official internship affiliation, or pre-approved individual arrangements. Prerequisite: INTR 310.

Other individual course descriptions can be found by looking under the appropriate area (political science, economics, business administration, history, or intercultural studies).

## Islamic Studies (minor)

**Department of Intercultural Studies:** Marcus W. Dean, chair and Associate Dean

**Faculty:** Benjamin Hegeman, Don Little, Paul W. Shea

Web site: [www.houghton.edu/academics/programs/intercultural](http://www.houghton.edu/academics/programs/intercultural)

Phone: 585.567.9634

**Minor:** (15-16 hours)

**Minor (2 required courses + 2 electives)**

INCL/MISS 360	Intro to Islamics, Houghton .....	4
INCL/MISS 361	Engaging the Muslim World, Houghton .....	4

**Minor Electives (2)**

INCL/MISS 440	Unorthodox & Folk Islam, Houghton .....	4
INCL/MISS 441	Islam in North America, Houghton .....	4
INCL/MISS 442	Globalization & Islamization, London (Mayterm) .....	4
INCL/MISS 322	History of Islamic theology and Movements .....	4
INCL/POLS 353	War and Terrorism in the Middle East:	
	History and Politics .....	4
HIST 319	The History of Islam, London .....	3
	Peoples and cultures of the Middle East, MESP .....	4
	Islamic Thought and Practice in the Middle East, MESP .....	4
	Conflict and Change in the Middle East, MESP .....	4

## COURSE DESCRIPTIONS

See intercultural studies



# Linguistics (minor)

**Department of Intercultural Studies:** Marcus W. Dean, chair and Associate Dean  
**Faculty:** Jan K. Buckwalter, Patrick L. Buckwalter, Andrew F. Gallman, Sherry W. Gallman, Eli Knapp, Don Little  
**Web site:** [www.houghton.edu/academics/programs/intercultural](http://www.houghton.edu/academics/programs/intercultural)  
**Phone:** 585.567.9634

**Minor:** (16 hours) This minor is taught in conjunction with the Summer Institute of Linguistics and Wycliffe Bible Translators. These linguistics courses are also offered as an optional concentration in the Intercultural Studies major.

Required courses:	
LING 220	Introduction to Linguistics ..... 4
LING 322	Phonetics ..... 4
LING 323	Phonology I ..... 4
LING 333	Grammar I ..... 4

Linguistics courses are useful to anyone expecting to learn or work with languages. A few examples are: foreign language majors, English as a second language students, people interested in TESOL as a career, people interested in missions and international business, and education majors facing multilingual classrooms. Philosophy and psychology students find the areas of semantics and phonology to overlap with their fields of interest. Math majors have found the analysis procedures of linguistics to require similar thinking skills to higher mathematics, and linguistics has provided them a real world application of mathematics training.

## COURSE DESCRIPTIONS

**LING 220 Introduction to Linguistics** (4, F)  
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 240 Arabic Language** (4, S12, 14)  
Arabic language studies can branch into either classical (Foosha) /International Arabic (MAS) or contemporary Arabic spoken in various key nations: Morocco, Tunisia, Egypt, Lebanon. Arabic is best learned on site in an Arabophone context, learned without the distractions of other courses, and for as long as possible. An entire semester would envisage a home-stay context in an Arabic home. One year of French is required if the language is studied in a Franco-Arabic context.

**LING 312 Sociolinguistics** (4, F)  
Focuses on language use patterns in multilingual societies: language maintenance and death; language attitudes; language planning; Pidgins and Creoles.

**LING 322 Phonetics** (4, F)  
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** (4, F)  
The principles involved in the analysis of sound systems with extensive practice in the phonological analysis of material from a wide variety of languages. (Prerequisite/Co-requisite: LING 322 Phonetics, or permission of instructor.)

**LING 333 Grammar I** (4, S)  
Principles and techniques of the analysis of morphological and syntactic structures of language.

**LING 350 First and Second Language Acquisition** (4, F)  
Linguistic, psychological, and sociocultural dimensions of language learning are explored, especially as they

relate to acquisition of a second language and TESOL instruction. Current theories and research are reviewed and analyzed in light of the reality of the language learning experience.

**EDUC/LING 351 Linguistics for TESOL** (Teaching English to Speakers of Other Languages) (4, S)  
This course will examine some of the unique challenges of English structure (phonological, morphological, syntactical, semantics and pragmatics) and the transfer problems that non-native speakers may have. Prerequisite: LING 220.

**LING 355 Theory and Practice of Bilingual Education** (3-4, OD)  
Designed as an introduction to bilingual education and bilingualism. Study of the sociolinguistic and psycholinguistic issues that surround bilingualism and bilingual education. An attempt is made to balance the psychological and the sociological, the macro education issues and the micro classroom issues, the linguistic and the sociopolitical, and to balance discussion at the individual and societal levels. Recommended prerequisite: LING 220.

**LING 360 Conversational Swahili** (2-4, F)  
This course is intended to prepare the student to carry on a conversation in simple Swahili. A basic grammar will be taught that will meet most conversational needs. The vocabulary will be limited to the kind of words that would commonly be used in rural village life in Tanzania. The focus in class will be on hearing and speaking Kiswahili.

**LING 440 Theory and Practice of TESOL Methodology** (4, S)  
Examines the language, reading, and writing development of English language learners. It explores TESOL methodology, assessment techniques, and ways to create a learning environment that nurtures language and literacy development. Students articulate a philosophy of TESOL and put learning into practice in a weekly practicum. (Prerequisite: LING 220, LING/EDUC 351 and LING 350, or permission of instructor).

**LING 295, 395, 495 Special Topics** (1-4, 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, 3 or 4)

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# Mathematics

(major and minor)

**Department of Mathematics and Computer Science:** Kristin A. Camenga, chair.  
Keith A. Horn, Associate Dean

**Faculty:** Kristin A. Camenga, Wei Hu, Richard A. Jacobson, Jill E. Jordan, Rebekah B. Yates

**Web site:** [www.houghton.edu/academics/programs/math-computer-science](http://www.houghton.edu/academics/programs/math-computer-science)

**Phone:** 585.567.9280

**Major:** (36 hours\*)  
*\*If a student takes a Mayterm course worth only 3 credit hours, s/he may complete the major with only 35 hours rather than the normal 36 hours.*

Required courses		
MATH 180	Calculus and Its Origins	<b>or</b>
MATH 181	Calculus I	4
MATH 182	Calculus II	<b>or</b>
MATH 183	Science Honors Calculus	4
MATH 210	Introduction to Proofs	2
MATH 261	Linear Algebra	4

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MATH 482	Senior Capstone: Mathematics Seminar .....	4
Choose one course from:	.....	4
MATH 422	Real Analysis	
MATH 462	Algebra I	
Choose one course from:	.....	2 or 4
MATH 214	Discrete Math (2 hours)	
MATH 231	Probability	
MATH 251	Modern Geometries	
Choose electives from any MATH 200 or above course or CSCI 211 for a		
	total of 36 hours .....	10-12
It is highly recommended that teachers of math choose		
MATH 251	Modern Geometries	
MATH 281	History of Mathematics	
MATH 422	Real Analysis	
MATH 462	Algebra I	

Very often, math majors will take more math courses than the preceding minimum requirement. This is especially true for those planning to go to graduate school.

**Teaching Mathematics – Inclusive Childhood (Elementary) or Adolescence (Secondary):** See Education.

**Minor:** (16 hours numbered 180 or above)

### General Information

Many of our graduates enter the teaching profession. However, math majors are also well prepared to pursue graduate work in engineering, computer science, law, theology, and the medical profession, as well as mathematics. Most of our students who complete a PhD program in mathematics are now college professors. Those who do not pursue an advanced degree find employment in a multitude of fields, ranging from the banking profession to Bible translators with Wycliffe. A number of our math majors find careers in the computer field.

## COURSE DESCRIPTIONS

### MATH 115 Introduction to Calculus (4, F&S)

A contemporary approach to the basic ideas of calculus, beginning with a discussion of topics that precede calculus, including linear, polynomial, and exponential functions. The calculus portion discusses velocity, tangent lines, and areas. Incorporates peer group work with a strong emphasis on graphing technology. With this course, students will become acquainted with calculus, the math that helped create the industrial revolution and is the driving force behind modern technology. Enrollment by permission only. Math IS.

### MATH 180 Calculus and Its Origins (4, OD)

Covers content of Calculus I from a historical perspective. A survey of the line of mathematical thought that began in ancient Greece and culminated with the discovery of calculus in Europe in the late 1600's, including investigations into: number theory, induction, proportion, logic, curvature, area and volumes, motion, limits, and the infinite. Prerequisite: MATH 115 or equivalent proficiency. Math IS.

### 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 115 or equivalent proficiency. Math IS.

### MATH 182 Calculus II (4, F&S)

Areas, volumes, centroids, integration techniques, calculus of transcendental functions, polar coordinates, parametric equations, infinite series. Prerequisite: MATH 180 or 181. Math IS.

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- MATH 183 Science Honors Calculus** (4, F)  
An accelerated study of calculus using a historical perspective. Investigates problems of motion, curvature, area and volumes, and the infinite that were first posed by the ancient Greeks. Explores the tools of limits, derivatives, integrals, and the infinite series that mathematicians developed to solve these problems in the late 1600s and 1700s. Reserved for first-year Science Honors students. Math IS.
- MATH 210 Introduction to Proofs** (2, F)  
Introduces the central idea of proof in mathematics and some standard proof formats that are used throughout the math major. The course includes propositional logic, an introduction to predicate logic, direct proof, proof by contradiction, and mathematical induction.
- MATH/CSCI 214 Discrete Mathematics** (2, F11)  
Topics include: sets, functions, relations (incl. Partial order), methods of propositional logic, introduction to predicate logic, counting, recurrence relations, asymptotic analysis, proof (incl. Induction), introduction to probability, graphs.
- MATH 231 Probability** (4, F11)  
Combinatorics, independence, conditional probability, discrete and continuous random variables, expected value and variance. Prerequisite: MATH 182.
- MATH 232 Mathematical Statistics** (4, S11)  
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** (4, F)  
Methods of solution and applications of principle types of differential equations. Prerequisite: MATH 182.
- MATH 251 Modern Geometries** (4, F10, F12)  
A survey of geometry including advanced Euclidean geometry and an introduction to non-Euclidean geometries. Prerequisite: MATH 182.
- MATH 261 Linear Algebra** (4, F&S)  
Linear algebra: vector spaces, linear mappings, inner products and matrices. Prerequisite: MATH 180 or 181.
- MATH 281 History of Mathematics** (4, M)  
A contextual study of the history of mathematics and some of the classical problems. Prerequisite: MATH 182.
- MATH 321 Multivariate Calculus** (4, S11)  
Infinite series, space geometry, vectors, vector function, function of several variables, partial differentiation, multiple integration. Prerequisite: MATH 182.
- MATH 331 Numerical Analysis** (3, OD)  
Representation of numeric data. Error analysis, mathematical basis, and limitations of techniques relating to selection of method. Topics: linear and nonlinear systems, curve fitting, numerical calculus, programming in MatLab. Prerequisite: MATH 181, 182, 261, CSCI 211.
- MATH 393 Summer Collaborative Research in Mathematics** (1-4, summer)  
Summer research in collaboration with a mathematics faculty member, focusing on a current area of mathematical research. Students work intensively with a faculty member over the course of four weeks during the summer. Prerequisites will be according to the chosen area of research.
- MATH 422 Real Analysis** (4, S12)  
Structure of the real number system, theory of limit, continuity, differentiation, Riemann integration, and infinite series. Prerequisites: MATH 321 and MATH 261, or permission.
- MATH 452 Point Set Topology** (4, OD)  
Open and closed sets. Connected, compact, and metric topological spaces. Prerequisite: MATH 261.

MATH 462 <b>Algebra I</b>	(4, S11)
Groups, Sylow theorems, rings and fields. Prerequisite: MATH 261.	
MATH 471 <b>Complex Analysis</b>	(4, F10)
Complex number system, limits, differentiation and integration in the complex plane, complex series. Prerequisites: MATH 321 and MATH 261, or permission.	
MATH 482 <b>Senior Capstone: Mathematics Seminar</b>	(4, S)
A capstone course which draws on many other courses. Emphases on formulating, solving, and explaining challenging problems in both verbal and written form. For seniors, except by permission.	
MATH 391, -2; 491, -2 <b>Independent Study</b>	(1, 2, 3 or 4)
MATH 295, -6; 395, -6; 495 <b>Special Topics in Mathematics</b>	(1, 2, 3 or 4)
A survey of topics not covered in other mathematics classes, including graph theory, computation theory, infinite cardinalities, and Galois theory. Phi, pi, e and i; mathematical modeling; math and programming.	
MATH 496 <b>Honors in Mathematics</b>	(4)

**Medical Technology** with a major in Biology (BS)  
**Department of Biology:** Matthew K. Pelletier, chair. Keith A. Horn, Associate Dean  
**Faculty:** As determined by chair.  
**Adjunct Faculty:** Joseph T. King, Brian Spezialetti  
**Web site:** [www.houghton.edu/academics/programs/biology/med\\_tech2.asp](http://www.houghton.edu/academics/programs/biology/med_tech2.asp)  
**Phone:** 585.567.9280

The program in medical technology which leads to a BS in biology requires that the student complete 94 hours of course work at Houghton College and then transfer to Robert Packer Hospital (Sayre, PA) or another approved program to complete a major in biology and a minor in chemistry.

The following courses must be taken at Houghton:	
All integrative studies requirements	
BIOL 151, 152	General Biology..... 8
BIOL 242	Microbiology ..... 4
BIOL 251	Genetics ..... 4
BIOL 365	Immunology ..... 4
CHEM 151, 152	General Chemistry..... 4,4
CHEM 241	Organic Chemistry I..... 4
CHEM 277	Analytical Chemistry..... 4
MATH 115	Intro to Calculus ..... 4
<b>Or</b>	
MATH 180	Calculus and Its Origins <b>or</b>
MATH 181	Calculus I..... 4

If a student plans to attend a non-affiliated medical technology program, s/he must petition for approval of the program during his/her junior year. Enrollment in hospital programs is limited by small class size, and there is no guarantee of admission. Usually a cumulative grade point average of at least 3.0 is needed in order to be a successful applicant. Students who choose not to continue in the medical technology (clinical laboratory science) program or who are not admitted to the professional curriculum may complete a year in biology or general science during the senior year.

Following successful completion of the senior year in the hospital program, students are qualified to sit for the national certification exams. These are administered by the Board of Registry of Medical Technologists and the National Certification Agency for Medical Laboratory Personnel.

**Ministry** — See the following headings:  
**Christian Formation** (includes Youth Concentration option)  
**Missions**  
**Religion** (includes Ministerial Concentration option)  
**Sports Ministry**  
**Urban Ministry**

**Missions** (minor, see also Intercultural Studies mission concentration)  
**Department of Intercultural Studies:** Marcus W. Dean, chair and Associate Dean  
**Faculty:** Marcus W. Dean, Benjamin Hegeman, Kristina LaCelle-Peterson, Paul W. Shea  
**Web site:** [www.houghton.edu/academics/programs/intercultural](http://www.houghton.edu/academics/programs/intercultural)  
**Phone:** 585.567.9634

**Minor:** (14-16 hours) Most students who minor in missions will include the highly recommended Cross-Cultural Field Experience in addition to the regular course work.  
Required courses:

Core courses (8 hours)	
MISS 221	History of the Global Christian Movement ..... 4 hrs.
And	
MISS 222	The Contemporary Church in Mission ..... 4 hrs.

Two electives (6-8 hours.) Under advisement chosen from:  
Any prefix MISS, LING, URMN, INCL or other course ..... 3-4 hrs. ea.  
in the curriculum with permission, one of the two being 300 level or above

**COURSE DESCRIPTIONS**

**MISS 221 History of the Global Christian Movement** (4, F)  
A study of the expansion and development of the global Christian movement with emphases upon chronological and geographical growth and cross-cultural interchange and partnership from apostolic days to the present. Special attention to connections to issues and relationships in the global church in today's world.

**MISS 222 The Contemporary Church in Missions** (4, S)  
Survey the contemporary state of the global church and its mission; introduction to theology of missions, goals, and strategies; special attention to current trends, issues, and research.

**MISS 311 Cross Cultural Field Experience** (3 or 4)  
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/INCL 322 History of Islamic Theology and Movements** (4, S11, 13)  
Following the death of Muhammad, issues of theological orthodoxy and governmental orthopraxy flourished in a context of conflict and growth. Students will appraise the historical developments of Muhammad's life and his revelations in the areas of theology, philosophy, jurisprudence, governance, literature, and culture. Relying on primary sources and historical disciplines, students will study the wide history of Islamic thought up until the OPEC crisis of 1973-74. Students will gain a confidence in grasping and discerning the many variants within the so-called unified Islamic ummah.

**MISS 325 Life in the City** (3)

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(See Off Campus Programs – Houghton College City Semester for description.)

**MISS 341 Biblical and Theological Foundations of Missions** (4, S12)

An examination of the biblical foundations of missions. Through inductive Bible study and other methods and emphasis on the biblical narrative, the course will explore the extensive Old Testament roots and New Testament development of mission theology and themes especially in the book of Acts. It will build toward a biblical view of culture, the nature and function of the church, and other relevant topics. Spiritual formation is enhanced by both mentoring and group study. No IS credit.

**MISS/INCL 342 Contextualization in Missions** (4, S11, 13)

Study of the interaction of the biblical message as it comes to life within a cultural context. The primary focus is on the church, but includes the broader understanding of the kingdom of God. Areas of study include theology, leadership, worship, ministry and kingdom living. Both past and present ideas of contextualization are covered.

**MISS/INCL 360 Introduction to Islamic Foundations** (4, S)

Muhammad's life and writings are the foundations of Islam. The Islamic faith will be appraised through a historical and primary source approach where students will read through the entire Qur'an in chronological fashion and a significant portion of the Hadiths. The students' mastery of Muhammad's life and Quranic vocabulary and a confident grasp of Quranic theology will give them a strategic appreciation of Islamic history and the present global Muslim community issues. This course is a prerequisite to the others.

**MISS/INCL 361 Engaging the Muslim World** (4, S11, 13)

For over 1400 years, Islam and Christendom have frequently engaged in rival forms of civilization encounters and/or clashes: invasions, polemics, diplomacy, colonization, dialogue, commerce, and academic research, each according to the context of the era. Relying on comparative, historical and missiological methodologies, students will study the ever-changing yet often-repeated approaches to Muslims in chronological appearance from various Christian communities: the Oriental churches, the Byzantine Orthodox churches, the Roman Catholic Church and the Protestant churches, with special emphasis on the current Evangelical 'contextualized' approaches. Students will gain a strong confidence and learn wise diplomacy in sharing Jesus to Muslims in a wide variety of means. This course has a fee.

**MISS/INCL 440 Unorthodox and Folk Islam** (4, S12)

Classical Islam is very resistant to creative theological variants within the Islamic ummah and brands them as deviant heresies, of which Folk Islam is the most common expression. Yet 'unorthodox' expressions, even so-called 'secular Islam', are far more prevalent forms of Islam among the youth and womenfolk than the orthodox interpretations, and Houghton students and graduates are far more likely to encounter these unorthodox expressions. This requires our students to grasp the diverse roots of widespread Islamic heterodoxy, syncretism, occult expressions, spiritual warfare, and secularism.

**MISS/INCL 441 Islam in North America** (4, S13)

The Islamic movements in North America are unique in being both very recent and limited to Afro-Americans and immigrants. That is changing given that international funding for a vibrant political Islam in America is among the strongest in emerging religions. Students will explore the various sociological expressions, their political aspirations and their texts. Special attention will be given to various Christian ministries to Muslims in North America.

**INCL/MISS 442 Globalization and Islamization** (4, S12)

Among the three most vibrant international movements in the emerging 21st century are Christianity, Islam and Globalization, and the most contested nexus are in the techno-secularized cities of the world. Students will focus specifically on the post-colonial conflicts and integration efforts of Muslims in the global communities and the impact of Globalization on Islamic societies. Attention will be given to recent international clashes between globalized secularism and Muslims, various political and Christian responses and the need for a Christ-centered confident response to both Globalization and Islamization.

**MISS 395 Special Topics in Missions** (1-4, OD)

Topics offered according to interest and demand.

**MISS 191, -2; 291, -2; 391, -2; 491, -2 Independent Study** (1, 2, 3 or 4)

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# Music (undergraduate majors and minors)\*

**The Greatbatch School of Music:** Ben R. King, director and Associate Dean

**Faculty:** Brian Casey, Judy A. Congdon, Paul T. DeBoer, Robert J. Galloway, Kelley Hilleh, Mark D. Hilleh, Brandon P. Johnson, Ben R. King, William J. Newbrough, Sun Mi Ro, Gary M. Stith

**Part-time & Adjunct:** Euridice Alvarez, Amanda Young Cox, Ken Crane, Chisato Eda, Virginia Halberg, Sharon Johnson, Margaret Kuhl, Ernie Lascell, Donna Lorenzo, Anton Machleder, B. Jean Reigles, James Tiller, Rintaro Wada, Abe Weiss; others as appropriate from the Buffalo and Rochester Philharmonic orchestras

**\*See Graduate Bulletin for information regarding graduate curricula, faculty, and courses.**

**Web site:** [www.houghton.edu/Greatbatch](http://www.houghton.edu/Greatbatch)

**E-mail:** [music@houghton.edu](mailto:music@houghton.edu)

## Mission

Within a Christ-centered, challenging, liberal arts education, The Greatbatch School of Music, Houghton College endeavors to produce graduates who, through commitment to musical excellence and to intelligent articulation of the integration of faith and music in their lives, can be effective musical practitioners and advocates in the Christian community and in the broader world.

## Accreditation

The Greatbatch School of Music is a full member of the National Association of Schools of Music, and its curricula conform to NASM published standards.

**Majors:** Music BA (40-42 hours); Performance BMus (hours variable); Music Education BMus (hours variable); Composition BMus (hours variable).

**Minors:** Performance and contract minors available (16 hours).

## Liberal arts study in the Greatbatch School of Music, Houghton College

Liberal arts students may study privately on a credit basis, may elect major or minor concentrations in music, and may participate in music ensembles. No more than eight hours of applied music may count toward graduation for students who are not majoring or minoring in music.

## Liberal Arts Music Major (BA)

Course requirements (listed in catalog order):

INST 201-202	Applied Music (6 hours at or above INST 201) .....	6
MUS —	Ensembles (Each semester of residence, with or w/o credit).....	0
MHS 231-334	Music History and Literature I-IV (any 2).....	4-6
MLT 211	Music & Listening: an introduction.....	4
MUS 250	Music in Christian Perspective .....	2
MTH 225, 226, 227, 228, 325, 326, 327, 367	Theory .....	18
	Electives in Music (211 or above).....	6
	Total: .....	40-42

## Senior Capstone Requirement

As a culminating experience in the music major, the degree candidate shall:

1. Prepare and successfully present a public performance of literature on the principal instrument, either as a solo half-recital or as a lecture-recital, with accompanying approved program notes, or
2. Prepare a paper or project examining some aspect of music, either alone or in relationship to another field of inquiry, or



3. Participate in an internship appropriate to the major or majors chosen.

The BA degree in music can be combined with other curricula in a double major. Business administration, communication, and psychology are combinations often selected. These combinations are valuable for those wishing to work in some aspect of the music industry. Suggested course sequences may be found in the Music Student Handbook. An audition is required to establish an appropriate performance course level.

For those interested in full-time Christian service with music as a component, a double major with either Bible or Christian Formation (see those respective majors) is recommended. With this major, directed electives in church music should be chosen. An audition is required to establish an appropriate performance course level. BA music majors must maintain membership in a major ensemble (see ensembles section) with or without credit. Choice of ensemble is made with the School of Music director's approval.

The recital attendance requirement for BA majors is ten performances per semester for any four semesters of residence.

**Bachelor of Music - Entrance requirements for music majors**

Students planning to pursue bachelor of music curricula should request a special music application when applying for admission to the college. An entrance audition in the major performing area is required. A schedule of such auditions is available from The Greatbatch School of Music. A tape-recorded audition may be sent, by permission of the director, in cases where an in-person audition is not possible. All appropriate forms, guidelines, supplemental information, and scholarship information are available through the music office or online ([www.houghton.edu/Greatbatch](http://www.houghton.edu/Greatbatch)). Call 800.777.2556 or send an e-mail to request these.

**Transfer students**

Students transferring to Houghton and intending a bachelor of music curriculum should follow the entrance and application procedures outlined above. In addition, transfer students must complete at least four semester hours at Houghton in their major applied area, regardless of achievement or previous hours completed.

**Integrative Studies Requirements - Bachelor of Music Curricula**

As part of all bachelor of music curricula, students are required to have 32 hours of integrative studies credits, including the following:

**Competencies**

- A. Writing** (*must satisfy by end of first year*)
  - 1) Passes WRIT 101 Writing in the Liberal Arts;
  - 2) Passes ENGL 207 Introduction to Literary Studies;
  - 3) Earns a score of at least 4 on the AP English Language exam;
  - 4) Earns a score of at least 600 on the Writing portion of the SAT;
  - 5) Earns a score of at least 26 on the Writing portion of the ACT.
- B. Foreign Language**
  - Performance, Music Ed Vocal Emphasis (Voice concentration) & Non-music Elective Studies majors:*  
Equivalent to 1<sup>st</sup> year of college instruction.
  - Composition, Music Ed Instrumental, and Music Ed Vocal Emphasis (Keyboard Concentration):*  
Equivalent to 1<sup>st</sup> semester of college instruction.

**Faith Foundation**

*Students required to take BIBL 101 must complete Bible by end of first year. Students taking Advanced Bible may take it at any time. THEL 209 normally taken second year and after BIBL 101; may be taken before Advanced Bible.*

- A. Bible**
  - BIBL 101 Biblical Literature OR**  
Students with at least two years' study of Bible in high school and at least a B average in those courses may take a 200-level BIBL course for their integrative studies requirement. (Exclusions: BIBL 251 Bible History and Geography and BIBL 261 Holy Land Tour.)
- B. Theology**
  - THEL 209 Introduction to Christianity
  - INTS 153 Honors: East Meets West

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**Culture: Understanding Human Thought and Creative Expression Across Time**

*Students must take at least two of these three categories.*

**A. History**

- HIST 101 Western Civilization I: Ancient Civilization to 1650 and HIST 102 Western Civilization II: 1650 to the Present (students take both)
- HIST 103 and 104 Western Civilization I and II: Science Honors
- HIST 105 Western Civilization: Ancient to the Present
- INTS 152 Honors Study in London
- INTS 153 Honors: East Meets West
- HIST 220 American History Survey
- HIST 223 Latin American History to 1800
- HIST 224 Latin American History since 1800
- HIST 230 Medieval Europe
- HIST 249 African History
- HIST 325 Europe in the Nineteenth Century
- HIST 326 Europe: 1890-1945
- HIST 332 History of Rome
- HIST 359 Colonial America
- HIST 360 Early National Period
- HIST 361 Civil War and Industrial America
- HIST 362 Recent America
- HIST 368 The Reformation

**B. Literature**

- ENGL 202 Literary Voices
- ENGL 213 English Literature I
- ENGL 214 English Literature II
- ENGL 217 American Literature I
- ENGL 218 American Literature II
- INTS 203 Literature and Wisdom
- INTS 152 Honors Study in London

**C. Philosophy**

- INTS 203 Literature and Wisdom
- INTS 152 Honors Study in London
- PHIL 202 Metaphysics, Morality and Mind
- PHIL 203 Theism, Naturalism and the Sciences
- PHIL 243 Ancient Philosophy
- PHIL 244 Medieval Philosophy
- PHIL 245 Early Modern Philosophy
- PHIL 246 Late Modern and Contemporary Philosophy

**Creation: Understanding the Natural World**

*Music Ed Vocal and Music Ed Instrumental majors ONLY*

- A. PHYS 140 Physics of Music

**OR**

**A. Science**

*If not taking PHYS 140, Music Ed majors must choose at least one course from A and one from B with two different prefixes.*

- BIOL 103 Fundamentals of Biology
- BIOL 105 Conservation Biology
- BIOL 151 General Biology I
- BIOL 152 General Biology II
- BIOL 207 Wildlife Behavior in East Africa
- BIOL 215 Local Flora and Vegetation
- BIOL 217 Human Anatomy and Physiology I
- BIOL 218 Human Anatomy and Physiology II (*with permission*)
- CHEM 151 General Chemistry I (lab)
- CHEM 187/188 Introduction to Nutrition and lab
- ESCI 101 Physical Geology (lab)
- ESCI 212 Environmental Earth Science (lab)
- PHYS 102 General Astronomy (lab)
- PHYS 130 How Things Work (lab)
- PHYS 151 General Physics I (lab)

**B. Math or Science** (*If Quantitative Literacy in Competencies is not met, student must take a MATH course.*)

- MATH 115 Introduction to Calculus

MATH 180 Calculus and Its Origins  
 MATH 181 Calculus I  
 MATH 182 Calculus II  
 MATH 183 Science Honors  
 BIOL 103 Fundamentals of Biology  
 BIOL 105 Conservation Biology  
 BIOL 151 General Biology I  
 BIOL 152 General Biology II  
 BIOL 207 Wildlife Behavior in East Africa  
 BIOL 215 Local Flora and Vegetation  
 BIOL 217 Human Anatomy and Physiology I  
 BIOL 218 Human Anatomy and Physiology II (*with permission*)  
 CHEM 121 Impact: Science on Society  
 CHEM 151 General Chemistry I  
 CHEM 187 Introduction to Nutrition  
 CSCI 211 Programming I  
 ESCI 101 Physical Geology \*  
 ESCI 212 Environmental Earth Science\*  
 PHYS 102 General Astronomy \*  
 PHYS 130 How Things Work  
 PHYS 151 General Physics I

*\*These courses may be taken for 4 hours including a lab component; or, for students who have taken a different lab science and have satisfied their QL competency without a Houghton math course, for 3 hours without a lab.*

### **Integrative Studies Electives**

*Must take as many different Integrative Studies Electives with different Prefixes as necessary to reach 32 Integrative Studies credits.*

**Choose from any courses listed above not already taken to fulfill other categories and/or choose any courses from the following list.**

ART 131 Introduction to Visual Arts (Lecture)  
 ART 132 Art and Architecture in Context in Europe (Lecture)  
 ART 211 Drawing I (Studio)  
 ART 221 Painting I (Studio)  
 ART 231 Ancient Art History (Lecture)  
 ART 232 Renaissance and Baroque Art History (Lecture)  
 ART 234 Art and Architecture in Europe (Lecture)  
 ART 235 African Art History (Lecture)  
 ART 236 Asian Art History (Lecture)  
 ART 237 Modern and Contemporary Western Art History (Lecture)  
 ART 245 Graphic Design I (Studio)  
 ART 251 Sculpture I (Studio)  
 ART 261 Printmaking I (Studio)  
 ART 271 Ceramics I (Studio)  
 ART 281 Foundations of Photography (Studio)  
 ART 284 Introduction to Digital Imaging (Studio)  
 ART 295 ST: Introduction to Watercolor Painting (Studio)  
 ART 295 ST: Imaging the Landscape (Studio)  
 ART 295 ST Portraying Place (Studio)  
 ART 295 ST: Artist's Book and Papermaking (Studio)  
 ART 314 The Art and History of Film (Lecture)  
 INTS 152 Honors Study in London

Economics Combination: ECON 201 Introduction to Economics (prerequisite) **and** one of the following

ECON 210 Principles of Microeconomics  
 ECON 211 Principles of Macroeconomics  
 ECON 212 International Economics  
 ECON 213 American Economic History I: Colonial Era-1865  
 ECON 214 American Economic History II: 1865-Present  
 ECON 237 Comparative Economic Systems  
 ANTH 243 Cultural Anthropology  
 BADM 301 Business Communication (COMM)  
 COMM 101 Presentational Speaking  
 COMM 205 Introduction to Communication Theory

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COMM 214 Introduction to Mass Media  
 COMM 215 Interpersonal Communication  
 COMM 244 Oral Performance of Literature  
 COMM 319 American Public Address  
 INTS 153 Honors: East Meets West (POLS)  
 INTS 159 Science Honors: Communication  
 POLS 201 Introduction to Politics  
 POLS 202 Immigration and Citizenship  
 POLS 203 Aristotle  
 POLS 204 Introduction to Democracy and Governance  
 POLS 225 Introduction to Environmental Governance  
 PSY 111 Introduction to Psychology  
 PSY 218 Social Psychology  
 PSY 230 Lifespan Development of the Family  
 SOC 101 Principles of Sociology  
 SOC 222 Social Problems  
 SOC 225 Foundations of Environmental Sociology  
 SOC 226 Culture, Faith, and Creation  
 SOC 237 Introduction to Marriage and Family Studies

***The following courses must be taken for credit – either for a grade or for pass/fail unless otherwise noted (L=letter grade required).***

HRSM 113 Horsemanship I  
 HRSM 114 Horsemanship II  
 HRSM 276 Dressage  
 HRSM 323 Eventing  
 HRSM 325 Horsemanship: Jumping I  
 PHED 101 Fitness for Life (L)  
 PHED 121 Badminton  
 PHED 122 Beginning Ballet  
 PHED 123 Canoeing  
 PHED 124 Cross-Country Skiing  
 PHED 125 Downhill Skiing/ Snowboarding  
 PHED 126 Golf  
 PHED 129 Table Tennis  
 PHED 130 Racquetball  
 PHED 131 Rock Climbing  
 PHED 133 Softball  
 PHED 135 Swimming  
 PHED 136 Tennis  
 PHED 137 Volleyball  
 PHED 138 Walking/Jogging  
 PHED 139 Water Skiing  
 PHED 140 Weight Training  
 PHED 141 Walking for Wellness  
 PHED 145 Continuing Ballet  
 PHED 146 Beginning Jazz Dance  
 PHED 147 Soccer  
 PHED 148 Continuing Jazz Dance  
 PHED 220 Adventure Sports (L)  
 PHED 228 Lifeguarding (L)  
 PHED 229 Educational Gymnastics (L)  
 PHED 230 Aquatics (L)  
 PHED 237 Holistic Health (L)  
 PHED 330 Physiology of Exercise (L)  
 REC 103 Initiatives (L)  
 REC 104 Backpacking (L)  
 REC 109 Highlander (L)  
 REC 211 Eco-tour in Honduras (L)  
 REC 212 Eco-tour in Africa (L)  
 REC 227 Outdoor Leadership Training (L)

\*The minimum requirement for Music Education-Instrumental (MEI), Composition, and Music Education-Vocal (MEV) Piano Concentration majors is four hours of beginning foreign language. The minimum requirement for Music Education-Voice (MEV) majors, and for Instrumental Performance majors, is eight hours of one foreign language, normally either German (preferred) or French. The minimum requirement for Vocal

Performance majors is 16 hours of beginning language, one year each of French and German. Music majors may satisfy these requirements via placement exam, CLEP, or AP exam.

**Bachelor of Music - Senior Capstone Experience**

As a culminating experience in any bachelor of music curriculum, the degree candidate shall successfully complete the senior capstone experience. Composition, music education, and performance majors prepare and successfully present one or more public performances of literature on the principal instrument, either a solo half-recital (music education curricula), the junior-senior recital sequence MUS 385/485 (performance curricula), or a full senior composition recital (composition curriculum). For music education majors the successful completion of music student teaching and its attendant seminar (MED 405, 419) are also components of the capstone. For the Bachelor of Music with Non-Music Elective Studies, Bachelor of Arts capstone criteria apply.

**Bachelor of Music in Composition**

The composition curricula provides a foundation for graduate degree study leading to college/conservatory teaching credentials in composition and theory, as well as professional and/or commercial compositional activity. Students explore a wide variety of musical styles with an emphasis on understanding compositional techniques which may be less familiar to them, such as those of 20th century art music. The senior recital requirement may be met by either a full recital of original compositions, or by a half recital of original compositions plus an original work of significant length and form included in another performance. The composer must serve as a performer or conductor for at least one of the pieces on the senior recital.

Course requirements (listed in catalog order):		
COMP 201-402	Applied Composition .....	16
INST 201+	Applied Music (Required piano: min. 4 hours at or above PIAN 201) .....	6-18
PERF 485	Senior Capstone: Senior Recital .....	0
MUS 229	Basic Conducting.....	2
MUS 329	Choral Conducting <b>or</b> .....	
MUS 430	Instrumental Conducting.....	2
MUS—	Ensembles (with or without credit-8 semesters).....	0
MED 214	Woodwind Instruments.....	1
MED 215	String Instruments .....	1
MED 217	Brass Instruments .....	1
MED 218	Percussion Instruments .....	1
MHS 231-334	Music History and Literature I-IV .....	10
MUS 250	Music in Christian Perspective .....	2
MUS 356	Vocal Pedagogy (Voice concentration only).....	(2)
MTH 226, 228, 326	Aural Skills .....	4
MTH 225-7, 325-7, 367	Theory .....	14
Advanced theory, chosen from: .....		6
MTH 458	Sixteenth Century Counterpoint (3) or .....	
MTH 463	Form and Analysis (3) or .....	
MTH courses numbered 500 and above, with permission .....		
Total: .....		66-80

Entering Composition majors are expected to enter with performance proficiency equivalent to INST 201 in the principal instrument concentration and PIAN 101 (if the principal instrument concentration is not the piano). Required graduation levels are minimum 6 hrs at or above INST 301 in the principal instrument concentration and minimum 4 hrs of piano at or above PIAN 201 if the principal instrument concentration is not the piano.

**Bachelor of Music with Non-Music Elective Studies**

This innovative, flexible curriculum provides an excellent option for musicians combining a passion for music with other interests and talents, providing the opportunity to combine in-depth with significant, focused work (18 hours minimum, up to 33 hours) in another discipline. The range of possibilities can be as creative as the interests and abilities of the student permits.

## Course requirements (listed in catalog order):

INST 201-401	Major Applied Studies (min. 3 hours at or above INST 401).....	15
MUS 229	Basic conducting .....	2
MUS 250	Music in Christian Perspective .....	2
MUS ---	Ensembles (with or without credit--8 semesters) .....	0
MHS 231-334	Music History and Literature I-IV .....	10
MKBD I-IV	Practical keyboard I-IV (or equivalent competency) .....	0-4
MTH 226, 228, 326	Aural Skills .....	4
MTH 225-7, 325-7, 367	Theory .....	14
Music Electives	.....	6-13
Music Capstone	.....	0-3
Music Total needs to equal	.....	60
Non-music Elective studies (must include the minor in any discipline offering the minor).....		18-33

## 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.

Admission to the Houghton College Teacher Education Program is by application, and continuation in the program requires meeting the standards outlined below. The Teacher Education Committee takes into account each candidate's prospects for successful completion of courses and field placement requirements in its decisions. Preparing to become a music teacher involves more than academic preparation in the college classroom. Part of the process of becoming an effective music educator includes cultivating professional behaviors, attitudes and dispositions that are expected of professionals in this field. To that end, prospective music teacher education students must demonstrate acceptable evidence of professional dispositions for admittance into and continuation in the Houghton College Teacher Education Program.

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

1. Complete an application (available from the department office, 200 Chamberlain Center or from the office of the Coordinator of Music Education),
2. Receive formal sophomore review approval from the music faculty,
3. Successfully complete the writing sample assessment,
4. Present a cumulative grade point average of at least 2.5,
5. Demonstrate acceptable evidence of professional dispositions, and
6. Receive formal approval from Teacher Education Committee.

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

1. Complete and submit the Application for Professional Field Semester **by the end of the second week of the spring semester prior to the requested fall semester placements**,
2. Have successfully completed all appropriate music education courses as outlined in the college catalog,
3. Have completed MED 210, 211 and 100 clock hours of observation in public or private schools,
4. Have successfully completed all required professional education courses as follows: EDUC 217 or 218, 219 and 235,
5. Present a cumulative grade point average of at least 2.7,
6. Demonstrate acceptable evidence of professional dispositions,
7. Complete all state-mandated training sessions required for certification by the end of the sophomore year (completed in EDUC 202 Topics in Professionalism), and
8. Receive formal approval from the Teacher Education Committee.

## Bachelor of Music in Music Education—Instrumental emphasis (MEI)

Music Courses (listed in catalog order):		Hours
INST 201-402	Applied Concentration (min. 9 hrs at or above INST 401).....	19
VOIC 101	Voice (beyond MCLV).....	1
PERF 485	Senior Capstone: Senior Recital.....	0
MCHU 475	Service Playing, Piano (keyboard concentration only).....	(1)
MUS 229	Basic Conducting.....	2

MUS 430	Instrumental Conducting .....	2
MED 214-218	WW, St, Br, Perc Instruments.....	4
MED 330	Keyboard Skills (Keyboard concentration only).....	(2)
MUS —	Ensembles (7 sem., with or w/o credit).....	0
MUS 223	Jazz Workshop .....	1
MKBD I-III	Practical Keyboard I-III (Instr. concentration only) .....	(0-3)
MHS 231-334	Music History and Literature I-IV .....	10
MUS 250	Music in Christian Perspective .....	2
MTH 226, 228, 326	Aural Skills .....	4
MTH 225-7, 325-7, 367	Music Theory.....	14
	Total: .....	62

#### Professional Education:

Hours

EDUC 202	Topics in Professionalism .....	0
EDUC 219	Educational Psychology.....	4
EDUC 217	Education and American Culture <b>or</b>	
EDUC 218	Secondary Education and American Culture .....	4
EDUC 235	Educating Exceptional Learners .....	4
MED 210	Field Experience in Music Education .....	2
MED 211	Workshop: Language Acquisition and Literacy Dev .....	0
MED 227-242	St, Br, Perc, WW Techniques .....	7
MED 351	Elementary School Methods .....	2
MED 354	Instrumental Methods .....	2
MED 405	Student Teaching.....	12
MED 419	Student Teaching Seminar .....	2
	Total: .....	39

### Bachelor of Music in Music Education—Vocal emphasis (MEV)

#### Music Courses (listed in catalog order):

Hours

INST 201-402	Applied Concentration (min. 7 hrs at or above INST 401) .....	19
VOIC 101	Voice (beyond MCLV; Keyboard concentration only) .....	(2)
PERF 485	Senior Capstone: Senior Recital.....	0
MCHU 475	Service Playing, Piano (Keyboard concentration only) .....	(1)
MUS 229	Basic Conducting.....	2
MUS 329	Choral Conducting .....	2
MED 214-218	WW, St, Br, Perc Instruments.....	4
MED 330	Keyboard Skills (Keyboard concentration only).....	(2)
MUS —	Ensembles (7 sem, with or w/o credit).....	0
MUS 353	Opera Theatre .....	1
MKBD I-VI	Practical Keyboard I-VI (Voice concentration only) .....	0-6
MHS 231-334	Music History and Literature I-IV .....	10
MUS 219-220	Foreign Language Diction.....	2
MUS 250	Music in Christian Perspective .....	2
MUS 356	Vocal Pedagogy (Voice concentration only).....	(2)
MTH 226, 228, 326	Aural Skills .....	4
MTH 225-7, 325-7, 367	Music Theory.....	14
	Total: .....	62-68

#### Professional Education:

Hours

EDUC 202	Topics in Professionalism .....	0
EDUC 219	Educational Psychology.....	4
EDUC 217	Education and American Culture <b>or</b> .....	4
EDUC 218	Secondary Education and American Culture .....	
EDUC 235	Educating Exceptional Learners .....	4
MED 210	Field Experience in Music Education .....	2
MED 211	Workshop: Language Acquisition and Literacy Dev .....	0
MED 351	Elementary School Methods .....	2
MED 352	Secondary School Methods .....	2
MED 405	Student Teaching.....	12
MED 419	Student Teaching Seminar .....	2
	Total: .....	32

**Bachelor of Music in Music Education—Alternate Applied Concentration in Composition (MEV-C or MEI-C)**

An alternate curricular plan in music education (for students with either vocal or instrumental emphasis) with a concentration in composition is available for qualified students. The bachelor of music in music education curricula outlined above form the core, with the following changes:

Music Courses (listed in catalog order):		Hours
INST 201+	Applied Music (at or above INST 201) .....	10
COMP 201-202	Applied Composition .....	6
Advanced theory chosen from: .....		3
MTH 458	Sixteenth Century Counterpoint (3) or	
MTH 463	Form and Analysis (3) or	
MTH courses numbered 500 and above, with permission		
MAP 485	Senior Capstone: Senior Recital (Composition).....	0

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

**Performance curricula** give initial preparation for careers as solo performers in concert, recording, or church fields; as accompanists, as private studio teachers; as professional ensemble members; as junior college or Bible school faculty, or college teachers (after advanced study). Practical experience in teaching is desirable during junior/senior years. Highest level of performance is expected. Course requirements are listed in catalog order:

**Bachelor of Music in Performance—Instruments: Brass, Guitar, Percussion, Strings, or Woodwinds**

Music Courses (listed in catalog order):		Hours
INST 301-402	Major Applied Studies (min. 16 hours at or above INST 401) ..	30
INST 101+	Applied minor in major family .....	4
PIAN 101	Piano(beyond MKBD III) .....	3-6
PERF 385	Junior Recital.....	0
PERF 485	Senior Capstone: Senior Recital.....	0
MUS 229	Basic Conducting.....	2
MUS 430	Instrumental Conducting.....	2
MUS —	Ensembles (with or without credit -- 8 semesters) .....	0
MED 241	Brass Techniques (2) or	
MED 242	Woodwind Techniques (2) or	
MED 227	String Techniques (2).....	2
MHS 231-334	Music History and Literature I-IV .....	10
MLT 450-1-2-3	Instrumental Literature.....	2
MUS 250	Music in Christian Perspective .....	2
MTH 226, 228, 326	Aural Skills .....	4
MTH 225-7, 325-7, 367	Theory .....	14
Advanced theory, chosen from: .....		6
MTH 458	Sixteenth Century Counterpoint (3) or	
MTH 463	Form and Analysis (3) or	
MTH courses numbered 500 and above, with permission		
Total: .....		81-84

**Bachelor of Music in Performance—Organ**

Music Courses (listed in catalog order):		Hours
ORGN 301-402	Organ (min. 16 hours at or above ORGN 401).....	30
PIAN 201-202	Piano (at or above PIAN 201) .....	5
PERF 385	Junior Recital.....	0
PERF 485	Senior Capstone: Senior Recital.....	0
MCHU 476	Service Playing.....	1
MUS 229	Basic Conducting.....	2
MUS —	Ensembles (with or without credit -- 8 semesters) .....	0
MHS 231-334	Music History and Literature I-IV.....	10
MLT 470	Organ Literature.....	2
MUS 250	Music in Christian Perspective .....	2
MUS 470	Organ Pedagogy.....	2



MED 330	Keyboard Skills .....	2
MTH 226, 228, 326	Aural Skills .....	4
MTH 225-7, 325-7, 367	Theory .....	14
Advanced theory, chosen from: .....		6
MTH 458	Sixteenth Century Counterpoint (3) or	
MTH 463	Form and Analysis (3) or	
MTH courses numbered 500 and above, with permission		
Total: .....		80

### Bachelor of Music in Performance—Piano

Music Courses (listed in catalog order):		Hours
PIAN 301-402	Piano (min. 16 hours at or above PIAN 401) .....	30
INST 101-102	Applied Minor (organ strongly recommended) .....	5
PERF 385	Junior Recital .....	0
PERF 485	Senior Capstone: Senior Recital .....	0
MCHU 475A	Service Playing .....	1
MUS 229	Basic Conducting .....	2
MED 330	Keyboard Skills .....	2
MUS —	Ensembles (with or without credit -- 8 semesters) .....	0
MHS 231-334	Music History and Literature I-IV .....	10
MLT 480	Piano Literature .....	2
MUS 250	Music in Christian Perspective .....	2
MUS 477	Piano Pedagogy .....	3
MTH 226, 228, 326	Aural Skills .....	4
MTH 225-7, 325-7, 367	Theory .....	14
Advanced theory, chosen from: .....		6
MTH 458	Sixteenth Century Counterpoint (3) or	
MTH 463	Form and Analysis (3) or	
MTH courses numbered 500 and above, with permission		
Total: .....		81

### Bachelor of Music in Performance—Voice

*The minimum requirement for Vocal Performance majors is 16 hours of beginning language, one year each of French and German. Vocal Performance majors may satisfy these requirements via placement exam, CLEP, or AP exam.*

Music Courses (listed in catalog order):		Hours
VOIC 301-402	Voice (min. 16 hours at or above VOIC 401) .....	28
PIAN 101	Piano (beyond MKBD III) .....	6-9
PERF 385	Junior Recital .....	0
PERF 485	Senior Capstone: Senior Recital .....	0
MLT 460	Vocal Literature .....	2
MUS —	Ensembles (with or without credit -- 8 semesters) .....	0
MUS 229	Basic Conducting .....	2
MUS 329	Choral Conducting .....	2
MHS 231-334	Music History and Literature I-IV .....	10
MUS 219-220	Foreign Language Diction .....	2
MUS 250	Music in Christian Perspective .....	2
MUS 356	Vocal Pedagogy .....	2
MTH 226, 228, 326	Aural Skills .....	4
MTH 225-7, 325-7, 367	Theory .....	14
Advanced theory, chosen from: .....		6
MTH 458	Sixteenth Century Counterpoint (3) or	
MTH 463	Form and Analysis (3) or	
MTH courses numbered 500 and above, with permission		
Total: .....		80-83

### Contract minor in music

A 16-hour contract minor as determined by arrangement with the director of The Greatbatch School of Music. A special course of study is developed to meet the student's specific goals and is signed prior to the taking of the courses. The signed course of study is placed on file in the Academic Records Office.

**Performance minor**

Sixteen hours in one specific performance area (eight hours at or above INST 201 and one year in an appropriate ensemble). A hearing is required to establish an appropriate performance course level. Limited enrollment in some areas based on teacher load availability.

Instrumental and Vocal:	voice, violin, viola, violoncello, double bass, guitar, trumpet, French horn, trombone, euphonium, tuba, flute, oboe, clarinet, saxophone, bassoon, percussion 14 hours of applied music 2 hours of ensemble
Keyboard:	14 hours of piano (10 hours at or above PIAN 201) 14 hours of organ (6 hours of piano at or above PIAN 101 <i>and</i> 10 hours of organ at or above ORGN 201, <i>or</i> 14 hours of organ at or above ORGN 201) 2 hours of ensemble

**Short Course in Organ**

Students interested in developing an organ technique for modest church requirements may elect a number of hours in organ, taking a minimum of one hour of practice per day, five days a week, for one hour credit per semester, or six days practice a week for two hours credit. Four semesters of such study will ordinarily suffice, although further work is encouraged. (Regular or intensified study is also available in summer school.)

**Summer School**

Applied music lessons and composition may be taken for credit during summer school, depending on instructor availability.

**COURSE DESCRIPTIONS**

**Applied Study** (private lesson fees charged, see Financial Information in this catalog)

Applied (private lesson) study is available only by permission of the appropriate studio faculty, and requires an audition. May be taken for major, minor, or elective credit. Each level number must be taken for a minimum of two credit hours before advancing to the next number. A minimum of two semesters at level (100, 200, etc.) is required before advancing to the next level. Applied study does not carry Integrative Studies credit.

*Course Numbering in Applied Study (all performance areas; INST = instrument code):*

INST 101, 102 (1-3, F&S)  
Normal level for introductory private study, non-majors. Permission of appropriate studio faculty. For voice: successful completion of MCLV II or permission. For piano: successful completion of MKBD IV or permission.

INST 201, 202 (1-3, F&S)  
Normal entering level for Bachelor of Arts, Composition, Music Education, and Bachelor of Music with Non-Music Elective Studies majors. Audition required, or prerequisite of INST 102 and permission of studio faculty.

INST 301, 302 (1-6, F&S)  
Normal entering level for Performance majors; intermediate private study, Bachelor of Arts, Composition, Music Education, Bachelor of Music with Non-Music Elective Studies majors, minors, and elective study. Audition required, or INST 202 as prerequisite. May be repeated for two additional semesters.

INST 401, 402 (1-6, F&S)  
Advanced private study for BMus. majors. Prerequisite: INST 302 and successful Sophomore Review. Repeatable as required.

**Areas of Applied Study**

**Collaborative Performance**

COLP 401-402 **Collaborative Performance** (1-4, F&S)  
Preparation and presentation of joint performances in a variety of keyboard, instrumental, and vocal combinations.

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## Composition

COMP 101-102, 201-202, 301-302, 401-402 **Composition**

(1-4, F&S)

Original composition in various forms, genres, and styles.

## Conducting

CONC 401-402 **Advanced Conducting, Choral**

(1-4, F&S)

Preparation of material for a major choral ensemble and actual experience directing the ensemble. Prerequisites: MUS 229,329, participation in ensemble, permission of ensemble director.

CONI 401-402 **Advanced Conducting, Instrumental**

(1-4, F&S)

Preparation of material for a major instrumental ensemble and actual experience directing the ensemble. Prerequisites: MUS 229, 430, participation in ensemble, and permission of ensemble director.

## Individual Performance Areas

### Brass & Percussion

HORN 101-102, 201-202, 301-302, 401-402 **French Horn**

TRPT 101-102, 201-202, 301-302, 401-402 **Trumpet**

EUPH 101-102, 201-202, 301-302, 401-402 **Euphonium**

TRMB 101-102, 201-202, 301-302, 401-402 **Trombone**

TUBA 101-102, 201-202, 301-302, 401-402 **Tuba**

PERC 101-102, 201-202, 301-302, 401-402 **Percussion**

### Strings

VILN 101-102, 201-202, 301-302, 401-402 **Violin**

VOLA 101-102, 201-202, 301-302, 401-402 **Viola**

VCLO 101-102, 201-202, 301-302, 401-402 **Violoncello**

BASS 101-102, 201-202, 301-302, 401-402 **Double Bass**

GUIT 101-102, 201-202, 301-302, 401-402 **Guitar**

HARP 101-102, 201-202, 301-302, 401-402 **Harp**

### Keyboard

HPSC 101-102, 201-202, 301-302, 401-402 **Harpsichord**

ORGN 101-102, 201-202, 301-302, 401-402 **Organ**

PIAN 101-102, 201-202, 301-302, 401-402 **Piano**

### Voice

VOIC 101-102, 201-202, 301-302, 401-402 **Voice**

### Woodwinds

FLUT 101-102, 201-202, 301-302, 401-402 **Flute**

OBOE 101-102, 201-202, 301-302, 401-402 **Oboe**

CLAR 101-102, 201-202, 301-302, 401-402 **Clarinet**

SAXP 101-102, 201-202, 301-302, 401-402 **Saxophone**

BSSN 101-102, 201-202, 301-302, 401-402 **Bassoon**

### Special Studies

SPEC 101-102, 201-202, 301-302, 401-402 **Specialized Study**

PERF 385 **Junior Recital**

PERF 485 **Senior Capstone: Senior Recital**

(0, F&S)

## Church Music

MCHU 311 **Historical Congregational Song**

(2, F11)

Introductory history of hymnology from the early Christian Church to about 1950. An investigation of hymnic poetic and musical styles. Stress upon familiarity with the hymnal. When taken with MCHU 312 meets Culture: Art or Music.

MCHU 312 **Recent Congregational Song**

(2, F11)

Survey of diverse streams of Christian congregational song in English from about 1950 to the present time, including: songs of "hymn explosion", songs of the liturgical renewal, Praise & Worship repertoire, and global song. Basic music-reading ability is expected. When taken with MCHU 311 meets Culture: Art or Music.

MCHU 451 **Music and Worship**

(3, OD)

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. Culture: Music.

MCHU 475 **Service Playing, Piano**

(1, S)

Development of keyboard skills with special application to piano playing in church service: melody harmonization and reharmonization, hymn playing and transposition, accompanying (solo and choral), extemporization in various styles. Permission of instructor. Required of piano majors and piano & organ concentrations within music education curricula.

**MCHU 476 Service Playing, Organ** (2, S)  
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.

**Conducting** (see Applied Study above for advanced conducting courses)

**MUS 229 Basic Conducting** (2, F&S)  
Basic conducting, rhythmic development, baton technique, three hours per week. Prerequisite: MTH 225.

**MUS 329 Choral Conducting** (2, S)  
Elements of choral conducting; training of choirs; rehearsal techniques; preparation of choral scores. Three hours per week. Prerequisite: MUS 229.

**MUS 430 Instrumental Conducting** (2, S)  
Conducting laboratory band or orchestra; methods of presenting band and orchestral materials. One and one-half hours with laboratory band or orchestra per week. Prerequisite: MUS 229.

**Ensembles**

**For non-music majors**

All college students are invited to participate in the various musical organizations. Credit is awarded non-music majors for the various available ensembles (normally one credit per semester), and an academic grade is recorded. By special permission of the conductor, a student may participate in a major ensemble without credit. Chamber ensembles are also formed according to demand, either with or without credit.

Ensembles which carry integrative studies credit include Men's Choir (MUS 344), Women's Choir (MUS 345), Symphonic Winds (MUS 337), Philharmonia (Orchestra) (MUS 343), and College Choir (MUS 349). Completion of the IS fine arts requirement normally requires two 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 permission of the director.

**For music majors**

One major ensemble (MUS 344, 345, MUS 347, 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 associate dean for music.

Credit is allowed for membership in the second ensemble. Those who elect the vocal curriculum are excused from participating in instrumental ensembles.

**Major ensembles (§ course available for 2 credits in any semester wherein ensemble tours.)**

Audition required. By permission of the director.

MUS 344 <b>Men's Choir</b>	(0/1, F&S)
MUS 345 <b>Women's Choir</b>	(0/1, F&S)
MUS 337 <b>Symphonic Winds (Touring) §</b>	(0/1, F) (0/1/2, S)
MUS 343 <b>Philharmonia (Orchestra) (Touring)</b>	(0/1, F&S)
MUS 349 <b>College Choir (Touring) §</b>	(0/1, F) (0/1/2, S)

**MUS 223 Jazz Workshop (Houghton Jazz)** (0, 1, F&S)  
Preparation and presentation of a variety of jazz repertoire including swing, combo, and modern styles. Permission of director.

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- MUS 226 Flute Ensemble** (0, 1, F&S)  
Preparation and presentation of repertoire for flute ensemble. Permission of director.
- MUS 255 Brass Ensemble** (0, 1, F&S)  
Preparation and presentation of repertoire for brass ensemble. Permission of director.
- MUS 353 Lyric Theater** (0, 1, S)  
Preparation and presentation of operatic, musical theater, and operetta scenes and complete works from the standard repertoire. Typical four-year cycle will comprise one full opera, one full musical or operetta, one bill of one-acts or acts from major works, and one scenes production. Study of techniques of stage movement and stagecraft. Three hours in rehearsal per week; outside rehearsal required. Permission of director.
- MUS 447 Piano Ensemble** (0, 1, F&S)  
Performance of keyboard ensemble repertoire, Renaissance to 20th century. Duet and multi-piano literature. Emphasis on style and special ensemble problems. Fulfills ensemble requirement for junior and senior applied piano (performance) majors. Four hours outside practice.
- MUS 455 Chamber Singers** (0, 1, F)  
Practical experience singing in a small group of 12 to 16 performers. Three hours in rehearsal per week. Permission of director.
- MUS 457 Chamber Ensembles** (0, 1, F&S)  
Ensembles organized to include interested students. Small groups rehearse three hours per week. Standard literature for handbells, percussion, strings, woodwinds, brass, percussion, guitar, etc., is studied with a view toward public performance during the year. Permission of appropriate ensemble director.
- Group Instruction: Practical Keyboard**  
Elementary and intermediate piano taught in six semesters of Practical Keyboard. One hour class, six hours practice weekly. Emphases: technique, repertoire, and functional skills of sight-reading, transposition, improvisation, and accompaniment. Placement level determined by audition. Piano levels 222, 225, 226, 227 must be taken by all music education non-keyboard majors except instrumental majors regardless of repertoire level at audition.
- MKBD I Practical Keyboard I** (1, F&S)  
Basic technique, rhythm, tone conception, articulation, fingering. Pentachord patterns, sight reading, transposition. Tetrachord scales. Simple I-V harmonization. Grade 1 repertoire.
- MKBD II Practical Keyboard II** (1, F&S)  
Basic work as in MKBD 110-111; pedaling and phrasing. Easier major scales, two rhythms, and arpeggios (hands separate). I-IV-V progressions and harmonization with simple accompaniments; IV7 by-ear chording. Grade 1 sight reading. Grade 2 repertoire.
- MKBD III Practical Keyboard III** (1, F&S)  
Easier major scales, hands together, two rhythms; easier arpeggios and minor scales, hands separate. Major/minor primary triad patterns and harmonization, by-ear work with varied accompaniments. Grade 2 sight reading; simple improvisation; easy hymns. Grade 3 repertoire.
- MKBD IV Practical Keyboard IV** (1, F&S)  
Major/minor scales, arpeggios, triads; hands together. Major/minor progressions, harmonization; by-ear work using secondary chords and expanded accompaniments. Grade 2-1/2 sight reading; grade 3 transposition, improvisation; hymns, songs. Repertoire such as Bach short preludes and easy sonatinas.
- MKBD V Practical Keyboard V** (1, F&S)  
All major/minor scales and arpeggios, hands together, three rhythms. Progressions, harmonization; by-ear work using secondary chords and dominants in expanded patterns. Grade 3 sight reading; four-part transposition. Repertoire: easier Bach inventions, allegro sonatina movement.

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**MKBD VI Practical Keyboard VI**

(1, F&amp;S)

All scales and arpeggios, four rhythms. Harmonization and by-ear work with advanced chords and accompaniments. Hymns and patriotic songs in pianist styles with transposition. Choral (including open vocal score) and art song accompaniment. Grade 4 sight reading. Repertoire such as Bach inventions and easy classic sonatas.

**Group Instruction: Voice Class****MCLV I Class Voice I**

(1, F&amp;S)

Study of posture, breath control, tone production, and diction. Textbook used. Includes both group and individual singing of simple vocalises and songs in English. Hearing required. Six hours practice.

**MCLV II Class Voice II**

(1, F&amp;S)

Continued study of basic vocal techniques. Emphasis on individual singing of vocalizes and songs in English. Introduction to Italian diction. Hearing required. Six hours practice.

**Music Education****MED 203 Music in Therapy**

(3, OD)

Introduction to music therapy as a profession and to applying music as a therapeutic method. History and present state of music therapy; music's contribution to business, industry, schools. Expected: some skill at reading music and some skill at the piano.

**MED 210 Field Experiences in Music Education**

(2, M)

Students participate in three weeks of field experiences in high-need school districts working as teachers' assistants and meet in a weekly seminar to discuss their experiences. Designed to fulfill the New York State field experience mandate; students earn 75-90 hours of field experience credit taken during freshmen or sophomore years. Students may opt to take EDUC 240, Teaching in Urban America, in lieu of this course. Taken concurrently with MED 211. (See Greatbatch School of Music Handbook for detailed explanation of Field Experience and other Certification requirements.)

**MED 211 Workshop: Language Acquisition and Literacy Development**

(0, M)

Introduces Music Education majors to foundational concepts surrounding language acquisition and literacy development, and provides resources for developing the listening, speaking, reading, and writing skills of native English speakers and students who are English language learners. Taken concurrently with MED 210.

**MED 214 Woodwind Instruments**

(1, F&amp;S)

Basic techniques of playing flute, oboe, clarinet, saxophone, and bassoon; acoustical, historical, and practical understanding of these instruments. Two hours class, two hours practice per week.

**MED 215 Stringed Instruments**

(1, F&amp;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.

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**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 217.

**MED 242 Woodwind Techniques** (2, S)  
Preparation for teaching woodwind instruments through the high school level. Development of playing and demonstration abilities. Survey of methods and materials, two class hours, three hours of practice. Prerequisite: MED 214.

**MED 330 Keyboard Skills** (2, F or S)  
Functional piano class required of piano and organ majors and concentrations within music education curricula. Emphases: sight reading, harmonization, transposition, accompaniment, score reading, improvisation. Jury exam. Six hours weekly practice. Prerequisite: Piano level 237.

**MED 351 Elementary School Methods** (2, F)  
Preparation for teaching general music in kindergarten through sixth grades. Particular emphasis upon preparation to teach according to the New York State Learning Standards for the Arts.

**MED 352 Secondary School Methods** (2, S)  
Preparation for directing secondary school (grades seven-12) choral ensembles and for teaching secondary level general music and other non-performance music classes. Particular emphasis upon preparation to teach according to the New York State Learning Standards for the Arts.

**MED 354 Instrumental Methods** (2, S)  
Instrumental music program in public schools. Organization and training of school orchestras, bands, and instrumental classes; pedagogical methods of the standard band and orchestra instruments. Particular emphasis on preparation to teach by the New York State Learning Standards for the Arts.

**MED 405 Student Teaching in Music** (12, F)  
Practical experience teaching music in public schools. Two placements of approximately seven weeks each, one on the elementary level (grades K-six), and one on the secondary level (grades seven-12). Criteria for approval: Completion of required professional education coursework as per emphasis, cumulative GPA of at least 2.70, documentation of at least 100 hours of field experience, and approval by the student teaching committee.

**MED 419 Student Teaching Seminar** (2, F)  
Seminar during and following student teaching dealing with effective teaching practices including problems of motivation, group management, curriculum development, and musical education goals.

## **Music History and Literature**

**MHS 222 Introduction to Film Music** (3, OD)  
History and aesthetics of music written for Hollywood films. Exploration of the sociology, philosophy, psychology, and technique of film music. Review of the elements of musical style with particular emphasis on their relation to the dramatic aspects of film. Written work emphasizing critical analysis of the use of music in various American film genres. Culture: Music.

**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. With MHS 232 satisfies Culture: Music.

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- MHS 232 Music History and Literature II** (2, S)  
Continues MHS 231, from late Renaissance through Baroque (1750). With MHS 231 satisfies Culture: Music.
- 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. Culture: Music.
- 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. Culture: Music.
- 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. Culture: Music.
- MLT 113 Masterworks of Sight and Sound** (3, OD)  
Introduction of art and music from classic age to present; concert and gallery attendance included.
- MLT 211 Music and Listening: An Introduction** (4, F&S)  
Introduction to the study and enjoyment of classical masterpieces in music: recordings, outside biographical readings, reports on current musical events. Culture: Music.
- MLT 450, 451, 452, 453 Brass, Woodwind, String and Percussion Literature** (2, OD)  
Survey of standard chamber, solo, and orchestral excerpt repertoire from the Baroque to the present. Emphasis on stylistic and interpretive traits, pedagogical issues and repertoire selection, major composers and representative works.
- MLT 460 Vocal Literature** (2, S12)  
Survey of standard vocal repertoire from the High Baroque to the present. Emphasis on stylistic and interpretive traits, pedagogical issues and repertoire selection, major composers and representative works.
- MLT 470 Organ Literature** (2, OD)  
An examination of the history of the development of the organ and its literature from the middle ages to the present. Examination of style and structure and their impact on performance.
- MLT 480 Piano Literature** (2, OD)  
An examination of the history of the development of the piano and its literature, including music written for early keyboard instruments which today is accepted as part of the piano repertoire. Emphasis on 18th, 19th, and 20th century repertory. Examination of style and structure and their impact on performance. Chamber music with piano, concerti, solo piano literature.
- Music Pedagogy and Specialized Courses**
- MUS 207 Introduction to Pro Tools** (3, F)  
Introduction to Pro Tools sound & recording software. Foundational skills necessary to record, edit, and mix at basic level using a Digidesign Pro Tools system. Focus: fundamental tools and techniques through demonstrations, real-world examples, and frequent hands-on assignments. Successful completion prepares student to undertake Pro Tools 101 Digidesign Certification exam. By permission of instructor.
- MUS 208 Essential Pro Tools** (3, S)  
Continued study of Pro Tools: expanding range of tools and techniques. Focus: expanded hardware and software configurations, developing versatile tools for manipulating and editing both audio and MIDI data, and implementing various techniques to facilitate larger and more sophisticated mixing scenarios, again through real-world examples and frequent hands-on assignments that will enhance your capabilities in all aspects of Pro Tools production. Successful completion prepares student to undertake Pro Tools 110 DigiDesign Certification exam Prerequisite: MUS 207.



- MUS 219, 220 Foreign Language Diction** (1/1, F&S)  
Basic diction facility in English, Italian, German, French. Required of voice majors and concentrations (any curriculum); elective for others. Two class meetings per week.
- MUS 250 Music in Christian Perspective: An Introduction** (2, F)  
Introduction to music studies in the context of Christian worldview. Examination of Biblical, philosophical, and scientific bases for human creativity. Discussion of music's role in society and in the liberal arts context. Orientation to college-level work in music, including diagnostic examination of background knowledge.
- MUS 330 Keyboard Skills** (2, F or S)  
Functional piano class required of piano and organ majors and concentrations within music education curricula. Emphases: sight reading, harmonization, transposition, accompaniment, score reading, improvisation. Jury exam. Six hours weekly practice. Prerequisite: Piano level 237.
- MUS 356 Voice Pedagogy** (2, S11)  
Methods of voice production and development as preparation for teaching; emphases on teaching and evaluation. Attention to proper selection of music. Two class hours per week; junior and senior year.
- MUS 470 Organ Pedagogy** (2, OD)  
Examination of teaching methods, materials, and technical approaches for the organ. Guided teaching in private and class settings. Required for organ performance majors.
- MUS 477 Piano Pedagogy** (3, S)  
Preparation for teaching beginning & intermediate piano students. Study of beginning & intermediate piano methods and literature, including adult and preschool materials. Survey of professional organizations and publications for the private piano teacher and a study of the writings and teaching ideals of great piano pedagogues. Guidelines for development and maintenance of private piano studio. Practicum for teaching community students with presentation of a public recital at the end of the semester.
- MUS 191, 291, 391, 491 Independent Study** (1, 2, or 3)
- MUS 395 Special Topics** (1-3, OD)
- MUS 495 Internship** (3-6, OD)
- Music Theory**
- MTH 225 Music Fundamentals Review** (2, F)  
Focused work in identification (aural and written) of intervals, scales, rhythms, chords and other basic materials of Western tonal music. Five class hours per week plus independent computer- and tutor-assisted instruction. Introduction to basic Finale (music notation) and MacGamut (aural/written theory skills) software. With MTH 226 satisfies Culture: Music.
- MTH 226 Musicianship Development: Introduction to Tonality** (2, F)  
Continued exploration of the fundamentals covered in MTH 225 in the context of Western tonal musical repertoire. Emphasis on sight-singing, dictation and improvisation. Five class hours per week plus independent computer- and tutor-assisted instruction. Continued development of basic Finale and MacGamut skills. Prerequisite: MTH 225 or permission of instructor. With MTH 225 satisfies Culture: Music.
- MTH 227 Basic Tonal Harmony** (3, S)  
Analysis, composition and basic arranging work using Western tonal harmony through secondary dominants. Continued development of Finale skills; introduction to basic Cakewalk (music sequencing) software. Prerequisite: MTH 226 or permission of instructor. Co-requisite: MTH 228 or permission of instructor.
- MTH 228 Musicianship Development: Tonal Melody and Harmony** (1, S)  
Work in tonal sight-singing, ear training and dictation, through secondary dominants. Two class hours per week plus independent computer- and tutor-assisted instruction. Continued development of software skills. Co-requisite: MTH 227 or permission of instructor.

- MTH 325 **Advanced Tonal Harmony and Counterpoint** (3, F)

Continuing analysis, composition and arranging work using Western tonal harmony through advanced chromaticism and eighteenth-century counterpoint. Continued development of software skills. Prerequisite: MTH 227; Co-requisite: MTH 326 or permission of instructor.
- MTH 326 **Musicianship Development: Advanced Tonality** (1, F)

Continuing work in tonal sight-singing, ear training and dictation, through advanced chromaticism. Two class hours per week plus independent computer- and tutor-assisted instruction. Continued development of software skills. Co-requisite: MTH 325 or permission of instructor.
- MTH 327 **The World of Contemporary Music** (4, S)

Western music of the twentieth and twenty-first centuries along with relevant materials from selected world music traditions. Development of aural, analytical, improvisational, compositional and arranging skills using these materials. Continued development of software skills. Prerequisite: MTH 226, 325.
- MTH 367 **Advanced Global Musicianship** (2, F/S)

Capstone course of the theory sequence: Analysis, improvisation, composition, arranging and performance in a variety of Western, world and integrative musical idioms. Emphasis on structures and processes. Prerequisite: MTH 327.
- MTH 458 **Sixteenth Century Counterpoint** (3, OD)

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, F10)

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.

Pastoral Ministry

(see Religion, Ministerial Concentration)

Philosophy (major and minor)

Department of Philosophy: W. Christopher Stewart, chair and Associate Dean

Faculty: Carlton D. Fisher, Benjamin J. B. Lipscomb, W. Christopher Stewart

Web site: [www.houghton.edu/academics/programs/religion\\_philosophy](http://www.houghton.edu/academics/programs/religion_philosophy)

Phone: 585.567.9460

Major: (32 hours)

History of Philosophy .....	12
At least three of the following:	
PHIL 243 Ancient Philosophy .....	4
PHIL 244 Medieval Philosophy .....	4
PHIL 245 Early Modern Philosophy .....	4
PHIL 246 Late Modern & Contemporary Philosophy .....	4
Logic & Critical Thinking .....	4
Philosophy Electives (above 220) Eight hours must be at the 400-level .....	14
Senior Capstone: Philosophy Colloquium .....	2
Total: .....	32

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### General Information:

Houghton philosophy majors are free to explore a wide range of questions the answers to which strengthen the foundation of a person's worldview and assist him or her to think through the relationships of all branches of knowledge and practice to the Christian faith. Work within other disciplines rests on philosophical commitments regarding the ways we know, the nature of reality, and basic human values (which is one reason all Houghton students are required to take at least one course in philosophy). Philosophy courses at Houghton connect directly or indirectly with many other areas, such as law, medicine, the arts, theology, business, and even the sciences. This, together with the fact that the study of philosophy significantly enhances basic intellectual skills (such as critical thinking, conceptual analysis, reading comprehension, and writing), makes the study of philosophy excellent pre-professional training, whether you're thinking of a pursuing work in church-related ministry (pre-seminary), law, education (elementary, secondary, or college), missions, linguistics/translation, medicine, business, finance, counseling, government service, public administration, journalism, library science, relief work, or just about any other field of work. The philosophy major at Houghton is compact and flexible, making it a good choice as a standalone or a second major. The philosophy minor is also a great complement to work in other fields. In addition to courses on the history of ideas (from Plato to Postmodernism), logic and critical thinking, Houghton offers "bridge courses" that directly link the study of philosophy to other disciplines, such as Philosophy of Law, Introduction to Political Thought, Medical Ethics, History and Philosophy of Science, Aesthetics, and Reason and Religious Belief. A little additional coursework in areas outside philosophy, such as business, psychology or sociology, opens up the possibility of internships in a wide variety of settings.

**Minor:** The minor consists of 12 hours of course work in philosophy beyond PHIL 202, INTS 152 or INTS 203, and must include at least 1 semester of history of philosophy (PHIL 243, 244, 245 or 246).

### COURSE DESCRIPTIONS

#### PHIL 202 **Metaphysics, Morality, and Mind**

(4, F, S)

Critical analysis of the contours of a world and life view coupled with more detailed critical analysis of perennial and foundational issues in epistemology (the nature of truth and knowledge), metaphysics (the nature of reality: persons, the world, and God), and ethics (the nature of goodness and the process of ethical decision making, with close attention to character--virtue and vice--and the foundations of morality). Culture: Philosophy.

#### PHIL 203 **Theism, Naturalism and the Sciences**

(4, F)

Detailed critical analysis of foundational issues in epistemology (how we know), metaphysics (the nature of reality), and ethics (character and values), with particular attention to methodological issues pertaining to the sciences, the nature and contours of a worldview, and the relationship between worldviews and the sciences. Reserved for second-year Science Honors students. Culture: Philosophy.

#### PHIL 222 **Logic and Critical Thinking**

(4, S11)

Introduction to basic argument analysis and informal fallacies, inductive and deductive argument forms, including the formal languages of modern philosophical logic, such as truth functional propositional logic, predicate logic, and some modal logic.

#### PHIL 243 **Ancient Philosophy**

(4, F11)

Survey of history of ideas from the ancient Greeks through the end of the classical period. Primary and secondary source readings by (or about) major figures such as the Pre-Socratics, Socrates, Plato, Aristotle, Hellenistic thinkers (Epicureanism, Stoics, and Skeptics), the Church Fathers & Neo-Platonists. Considers major trends in metaphysics, epistemology & ethics. Culture: Philosophy.

#### PHIL 244 **Medieval Philosophy**

(4, S12)

Survey of history of ideas from the end of Classical period through the early Renaissance. Includes primary sources by major figures such as Augustine, Anselm, Islamic Philosophers (Alfarabi, Avicenna, Averroes), Bonaventure, Aquinas, Scotus and Ockham. Consideration of major trends such as faith and reason, realism and nominalism, creation, & religious language. Culture: Philosophy.

- PHIL 245 Early Modern Philosophy** (4, F10)  
Survey of the history of ideas from the Late Renaissance through the Eighteenth Century. Includes primary and secondary sources by (or about) major (and some minor) figures, such as Machiavelli, Montaigne, Descartes, Leibniz, Locke, Spinoza, Berkeley, Hume, Reid and Kant. Considers major movements such as continental rationalism, British empiricism, and natural law and moral sense traditions in ethics and politics. Culture: Philosophy.
- PHIL 246 Late Modern and Contemporary Philosophy** (4, S11)  
Survey of the history of ideas from the Late Modern Period (post-Kantian European philosophy) through the present. Includes primary and secondary sources by (or about) major figures such as Hegel, Mill, Marx, Kierkegaard, Nietzsche, Husserl, Peirce, James, Dewey, Russell, Moore, Wittgenstein, Sartre, Quine, Rawls, Foucault, Derrida, Rorty, Pragmatism, Positivism and Postmodernism. Culture: Philosophy.
- PHIL 250 Aesthetics** (2, S11)  
A philosophical study of art and aesthetic experience focusing on the value of art for human life, rather than the more narrow (and less useful) question of the definition of art. Explores the relative importance to a normative theory of art of such values as pleasure, beauty, expression of emotion, and understanding, and examines how these values can be embodied by various art forms, such as visual art, music, literature, the performing arts (dance and theater), and architecture.
- PHIL/POLS 260 Introduction to Political Thought** (4, F10)  
Introduces students to Western political thought from the ancient to the modern world through a close reading of important thinkers. By considering problems of community, obligation, order, justice, liberty, and freedom, the course equips students for careful normative reflection on public life.
- PHIL/THEL 300 Christianity and Postmodernism** (4, F11)  
Explores relationship between Christian faith and practice and postmodern culture. Primary & secondary readings drawn from a variety of disciplines and sources explore the implications of postmodernism for church, individuals, the media & popular culture.
- PHIL/HUM 306 Varieties of Postmodernism** (3, M OD)  
Interdisciplinary analysis of the many faceted cultural phenomenon known as “postmodernism.” Moves from an initial starting point considering postmodernism as a reaction to various philosophical claims associated with modernity to the meaning and significance of postmodern ideas as they have been transposed into a variety of other contexts in the analytic humanities, literature, arts and sciences.
- PHIL/POLS 322 Philosophy of Law** (2, F12)  
Introduction to fundamental issues surrounding the concept of law, such as the debate between natural law theorists (who maintain that there is a law above human law) and legal positivists (who deny this), as well as issues such as punishment and the legitimacy of legislative authority.
- PHIL 330 Medical Ethics** (2, F12)  
Introduction to contemporary medical ethics, analyzing case studies and philosophical essays on a variety of dilemmas in contemporary medical practice, such as truth-telling and confidentiality, research ethics, reproductive technologies, abortion and embryonic stem-cell research, euthanasia, and physician-assisted suicide. Service in a local health-care setting also possible as a supplement to the course (for additional credit).
- PHIL/THEL 340 The Nature of God** (2, F10)  
Introductory course in philosophical theology, focusing on the concept of God. Philosophical analysis of divine attributes (such as God’s power, knowledge, goodness, and relation to time).
- PHIL/THEL 350 Reason and Religious Belief** (2, F10)  
Introductory course in religious epistemology, focusing on the sources of religious knowledge and the rationality of religious belief. Philosophical analysis of arguments for God’s existence, the problem of evil, and the roles of faith and reason in religious belief.
- PHIL 360 History and Philosophy of Science** (4, OD)  
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,

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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 414 Major Figures**

(2 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 435 Ethical Theory**

(4, F11)

Analysis of traditional normative theories (formalism, consequentialism, and virtue ethics) through the reading of primary sources. Also explores developments in contemporary moral theory.

**PHIL 445 Religious Epistemology**

(4, S12)

Seminar examining the epistemology of religious belief via close reading and discussion of historical and contemporary works. Touches on topics such as the rationality of religious belief, theistic arguments (for God's existence), the problem of evil (and atheistic arguments generally), and faith and reason. The specific issue(s) to be considered will be identified each time the course is scheduled. Repeatable when the topics are diverse.

**PHIL/THEL 455 Aquinas**

(4, F12)

Seminar on the thought of Thomas Aquinas involving a close reading of Aquinas' most important work, the *Summa Theologiae*, with occasional supplementation from other relevant primary and secondary literature.

**PHIL 465 Nietzsche**

(2 or 4, F10)

Seminar on the thought of Friedrich Nietzsche involving a close reading of several of his major works and discussion of his continuing influence on Western thought and culture. (When offered for 4 hours may include consideration of works by other influential atheistic philosophers, such as David Hume, Bertrand Russell, or Jean Paul Sartre.)

**PHIL/THEL 475 Kierkegaard: A Man for All Disciplines**

(4, F11)

Reading seminar on some key works of the "melancholy Dane," including (for example) *Either/Or*, *Fear and Trembling*, *The Sickness Unto Death*, the *Philosophical Fragments* and *Concluding Unscientific Postscript*. A "man for all disciplines," Kierkegaard's writings continue to attract interest for their philosophical and theological insights, as well as their literary sophistication

**PHIL/THEL 485 Issues in Philosophical Theology**

(4, S11)

Seminar in which selected topics in Christian theology are examined via close reading and discussion of historical and contemporary works of philosophical theology. Examples of topics considered: Divine Attributes, Divine Providence (and Human Freedom), God and Ethics, Faith. The specific issue(s) to be considered will be identified each time the course is scheduled. Repeatable when topics are diverse.

**PHIL 290, 390, 490 Special Topics**

(2 or 4, OD)

Examination of specific movements or particular problems in philosophy, or themes in the history of ideas.

**PHIL 191, 291, 391, 491 Independent Study**

(2 or 4, OD)

**PHIL 495 Senior Capstone: Philosophy Colloquium**

(2, F, S)

A required capstone seminar for philosophy majors normally completed in one of the final two semesters of the student's college experience. Prerequisite: A minimum of 18 hours in philosophy. May only be taken once for credit.

**PHIL 496 Honors in Philosophy**

(4, S)

# Physical Education (majors and minors)

**Department of Physical and Health Education:** Trini G. Rangel, chair. Cathy E. Freytag, Associate Dean

**Faculty:** Andrea N. Boon, Deanna Hand, Sandra D. Johnson, Thomas R. Kettelkamp, David B. Lewis, Christopher Nafziger, Trini G. Rangel, Matthew Webb, Brad P. Zarges

**Web site:** [www.houghton.edu/academics/programs/physical\\_education](http://www.houghton.edu/academics/programs/physical_education)

**Phone:** 585.567.9645

**Majors:** Physical Education (teaching K-12: 36.5 hours in the major; 11.5 hours in activities; 29 in education; 4 hours in pre/co-requisites),

Physical-Health Education (dual certification K-12: 65-68 hours in major; 24 hours in education)

Physical Education (non-certification: 38-40 hours in the major),

Physical Education majors meet Health and Wellness: Point 1 by taking PHED 237; Point 2 by taking PHED 330; Points 3 & 4 are met in a variety of ways with proper planning.

**Minors:** Physical Education (15.5 hours)

Physical Education with focus on athletic training (16 hours)

Physical Education with focus on Pre-physical Therapy (14.5-16 hours)

Sports Ministry (16 hours minimum)

## Requirements for Programs Leading to Teacher Certification

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

1. Complete an application (available from the education department office, 200 Chamberlain Center),
2. Successfully complete the writing sample assessment,
3. Present a cumulative grade point average of at least 2.5, and
4. Demonstrate acceptable evidence of professional dispositions, and
5. Receive formal approval from Teacher Education Committee.

For entry into **physical education courses containing practicum experiences**, a student must:

1. Have been admitted to the teacher education program,
2. Present a cumulative grade point average of at least 2.6, and
3. Receive approval from the Physical Education Department Chair.

Note: Continuation in remaining practicum experiences is contingent upon successful completion of all requirements for coursework and field placements.

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

1. Complete and submit the Application for Professional Field Semester **by the end of the second week of the semester prior to the requested professional semester**,
2. Have successfully completed the junior level course sequence appropriate to the major,
3. Present a cumulative grade point average of at least 2.7,
4. Demonstrate acceptable evidence of professional dispositions, and
5. Complete all state-mandated training sessions required for certification (completed in EDUC 202), and
6. Receive formal approval from the Teacher Education Committee.

## Physical Education Teaching (K-12) Major

The physical education major leading to New York state teacher certification requires 36.5 hours in physical education courses, 11.5+ in required activities and 29 in education requirements.

### Pre/Co-requisites

PSY 101	Introduction to Psychology .....	4
	Total .....	4

### Core Requirements

BIOL217, 218	Human Anatomy and Physiology.....	8
PHED 212	Foundations of Physical Education and Health .....	2

PHED 237	Holistic Health.....	4
PHED 246	Care and Prevention of Athletic Injuries.....	2
PHED 248	Inclusive Physical Education .....	2
PHED 249	Inclusive Physical Education Practicum .....	0.5
PHED 306	Principles of Coaching and Sport Management.....	4
PHED 308	First Aid/Safety.....	2
PHED 320	Measurement and Eval in P E .....	4
PHED 330	Physiology of Exercise.....	4
PHED 341	Kinesiology .....	4
	Total.....	36.5

#### Required Activities

PHED 229	Educational Gymnastics and Movement Foundations.....	2
PHED 230	Aquatics .....	2
PHED 124	Cross Country Skiing .....	0.5
PHED 125	Downhill Skiing .....	0.5
PHED 123	Canoeing.....	0.5
PHED	Sport Competencies .....	0-?
PHED 256	Cooperative Games .....	1
PHED 254	Teaching Net/Wall/Target Sports .....	2
PHED 255	Teaching Team Passing/Striking/Fielding Sports.....	2
<i>Choose one course from following list:</i>		
REC 103	Initiatives.....	1
REC 109	Highlander .....	2
REC 227	Outdoor Leadership Training .....	4
REC 240	Administration of Organized Camps .....	4
REC 301	Methods and Materials: Camps and Outdoor Ed .....	4
	Total.....	11.5+

#### Education Requirements

EDUC 202	Topics in Professionalism .....	0
EDUC 217	Education and American Culture .....	4
(or EDUC 218 Secondary Education and American Culture .....		4)
EDUC 240	Teaching in Urban America .....	2
PHED 225	Teaching Elementary Physical Education .....	2
PHED 302	Teaching Secondary Physical Education .....	2
PHED 235, 303	Teaching Practicum I, II .....	0.5/0.5
EDUC 313	Language, Literacy and Curriculum integration.....	4
PHED 405 and 407	Student Teaching .....	12
<i>(CPR/First Aid must be current)</i>		
PHED 411	Senior Capstone: Issues Seminar In Physical Education.....	2
	Total: .....	29

*The Physical Education major satisfies the Health and Wellness competencies with the following courses:*

*Point 1 – PHED 237 Holistic Health*

*Point 2 – PHED 330 Physiology of Exercise*

*Point 3 – PHED 229 Educational Gymnastics and Movement Foundations*

*Point 4 – PHED 123 Canoeing or PHED 124 Cross Country Skiing or PHED 125 Downhill Skiing*

### Physical-Health Education Dual Certification Major

The Physical-Health Education Major is a dual certification option that requires 65-68 hours in the major plus 24 hours in education.

#### Physical Education Core requirements

PHED 212	Foundations of Physical Education and Health .....	2
PHED 248	Inclusive Physical Education .....	2
PHED 229	Educational Gymnastics and Movement Foundations .....	2
PHED 254	Teaching Net/Wall/Target Sports <b>or</b> .....	
PHED 255	Teaching Team Passing/Striking/Fielding Sports .....	2
PHED 230	Aquatics .....	2
PHED 306	Principles of Coaching and Sport Management .....	4
PHED 320	Measurement and Evaluation in Physical Education .....	4
PHED 330	Physiology of Exercise .....	4
PHED 341	Kinesiology .....	4

<i>Choose one of the following:</i>	.....	1-4
PHED 256	Cooperative Games	
REC 103	Initiatives ( <i>meets Health &amp; Wellness: Point 4</i> )	
REC 109	Highlander Adventure ( <i>meets Health &amp; Wellness: Point 4</i> )	
REC 227	Outdoor Leadership Training ( <i>meets Health &amp; Wellness: Point 4</i> )	
REC 240	Administration of Organized Camps	
REC 301	Methods & Materials: Camps and Outdoor Education	
PHED 225	Teaching Elementary Physical Education .....	2
PHED 302	Teaching Secondary Physical Education .....	2
<i>Choose two of the following:</i>	.....	1
PHED 235	Elementary Teaching Practicum I	
PHED 303	Secondary Teaching Practicum II	
PHED 249	Inclusive PE Practicum	
Total	.....	32-35

#### Health Education Core Requirements

PHED 237	Holistic Health .....	4
PHED 246	Care and Prevention of Athletic Injuries .....	2
PHED 308	First Aid and Safety .....	2
PHED 310	Organization of School Health .....	4
BIOL 217	Human Anatomy and Physiology I .....	4
BIOL 218	Human Anatomy and Physiology II .....	4
BIOL/PHED 232	Epidemiology .....	2
CHEM 187	Intro to Nutrition .....	3
PSY 230	Lifespan Development of the Family .....	4
PSY 335	Drugs and Behavior .....	4
Total	.....	33

#### Pedagogy Core

EDUC 202	Topics in Professionalism .....	0
EDUC 217	Education and American Culture .....	4
EDUC 240	Teaching in Urban America .....	2
EDUC 313	Language, Literacy and Curriculum Integration .....	4
PHED 406	Student Teaching in Elementary Physical Education /Health K-6 .....	6
PHED 408	Student Teaching in Secondary Physical Education/ Health 7-12 .....	6
PHED 412	Issues Seminar in Physical Education/Health .....	2
Total	.....	24

### Physical Education Non-Certification Option

The physical education non-teaching major requires 38-40 hours in physical education courses.

#### Major Requirements

Psychology course	.....	4
BIOL 217, 218	Human Anatomy & Physiology I, II.....	4, 4
PHED 212	Foundations of Physical Education and Health .....	2
PHED 237	Holistic Health.....	4
PHED 246	Care/Prev/Management of Athletic Injuries .....	2
PHED 308	First Aid/Safety .....	2
PHED 330	Physiology of Exercise .....	4
PHED 341	Kinesiology .....	4
PHED 320	Measurement and Evaluation in PE .....	4
Special Populations Course (Inclusive Physical Education; Educating Exceptional Learners)	.....	2-4
PHED 415	Senior Capstone for Non-Certification: Issues Seminar .....	2
Total.....		38-40

**Physical Education Minor:** The physical education minor (15.5 hours) consists of the following:

#### Pre/Co-requisites

Three activity courses which fulfill the Lab, Indoor and Outdoor components of the Integrative Studies requirements .....	1.5
PHED 212 Foundations of Physical Education.....	2



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PHED 237	Holistic Health.....	4
Plus 8 hours from courses numbered above 200*	.....	8
(* no more than four credits may be in activity laboratories.)		
Total: .....		15.5

**Athletic Training Minor:** The physical education minor with a focus in athletic training (16 hours) is comprised of the courses listed below. This minor is designed to enhance the student's skills in preventing, evaluating, and treating various athletic injuries.

Required classes

PHED 246	Care, Prevention & Management of Athletic Injuries .....	2
PHED 247	Recognition and Evaluation of Athletic Injuries.....	4
PHED 308	First Aid/Safety .....	2
PHED 330	Physiology of Exercise <i>or</i>	
PHED 341	Kinesiology .....	4
PHED 347	Therapeutic Modalities .....	2
PHED 348	Therapeutic Exercise Mgmt. of Injuries .....	2
Total: .....		16

**Pre-physical Therapy Minor:** (14.5-16 hours) – See *Pre-physical Therapy* entry.

**Sports Ministry Minor:** (16 hours minimum, interdisciplinary) – See *Sports Ministry* entry.

### Coaching Registration

Completion of the teaching certification option meets all requirements for New York registration for coaching interscholastic sports in the public schools. Students in other majors/minors interested in coaching registration should take:

PHED 295	ST: Principles, Philosophy and Organization of Athletics in Education.....	3
PHED 395 S	T: Health Sciences Applied to Coaching .....	3

These are expected to be alternating courses offered during Mayterm and will meet 2 of the 3 required courses for New York registration (courses will be offered through an “on demand” basis).

Courses meeting the requirements for coaching interscholastic sports in New York public schools must be completed within one year unless an extension has been filed (up to three years). For this reason, these courses are recommended for junior and senior students ONLY. The remaining 2-credit course, Theory and Techniques of Coaching will need to be completed on the student's own time and expense in order to complete the coaching certification.

## COURSE DESCRIPTIONS

**PHED 101 Fitness for Life** (1, F&S)

Health-related physical fitness, self-evaluation, and individualized wellness programs. Health and Wellness: Point 1.

**PHED 103 Adaptive Physical Education** (1/1, OD)

For those who have some physical handicap or are limited by lack of coordination and basic training. Prerequisite: PHED 101 or 101M.

**PHED 121 Badminton** (.5, S)

Physical coordination and conditioning; basic skills; appreciation for physical activity and lifetime fitness in Christian life. Health and Wellness: Point 3.

**PHED 122 Beginning Ballet** (.5, F)

Physical coordination and conditioning; basic skills; appreciation for physical activity and lifetime fitness in Christian life. Health and Wellness: Point 3.

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- PHED 123 Canoeing** (.5, S)  
Physical coordination and conditioning; basic skills; appreciation for physical activity and lifetime fitness in Christian life. Health and Wellness: Point 4.
- PHED 124 Cross Country Skiing** (.5, S)  
Evaluate personal health-related physical fitness components and incorporate exercise prescription through the venue of Cross Country Skiing. Develop basic skills and an appreciation for physical activity and lifetime fitness in Christian Life. Health and Wellness: Point 2 or 4.
- PHED 125 Downhill Skiing** (.5, S)  
Physical coordination and conditioning; basic skills; appreciation for physical activity and lifetime fitness in Christian life. Health and Wellness: Point 4.
- PHED 126 Golf** (.5, F)  
Physical coordination and conditioning; basic skills; appreciation for physical activity and lifetime fitness in Christian life. Health and Wellness: Point 4.
- PHED 129 Table Tennis** (.5, F&S)  
Physical coordination and conditioning; basic skills; appreciation for physical activity and lifetime fitness in Christian life. Health and Wellness: Point 3.
- PHED 130 Racquetball** (.5, F&S)  
Physical coordination and conditioning; basic skills; appreciation for physical activity and lifetime fitness in Christian life. Health and Wellness: Point 3.
- PHED 131 Rock Climbing** (.5, F&S)  
Physical coordination and conditioning; basic skills; appreciation for physical activity and lifetime fitness in Christian life. Health and Wellness: Point 3.
- PHED 133 Softball** (.5, F)  
Physical coordination and conditioning; basic skills; appreciation for physical activity and lifetime fitness in Christian life. Health and Wellness: Point 4.
- PHED 135 Swimming for non-majors** (.5, F)  
Evaluate personal health-related physical fitness components and incorporate exercise prescription through the venue of Swimming. Develop basic skills and an appreciation for physical activity and lifetime fitness in Christian Life. Health and Wellness: Point 2 or 3.
- PHED 136 Tennis** (.5, F&S)  
Physical coordination and conditioning; basic skills; appreciation for physical activity and lifetime fitness in Christian life. Health and Wellness: Point 4.
- PHED 137 Volleyball** (.5, F)  
Physical coordination and conditioning; basic skills; appreciation for physical activity and lifetime fitness in Christian life. Health and Wellness: Point 3.
- PHED 138 Walking/Jogging** (.5, F&S)  
Evaluate personal health-related physical fitness components and incorporate exercise prescription through the venue of Walking/Jogging. Develop basic skills and an appreciation for physical activity and lifetime fitness in Christian Life. Health and Wellness: Point 2 or 3.
- PHED 139 Water Skiing** (.5, F)  
Physical coordination and conditioning; basic skills; appreciation for physical activity and lifetime fitness in Christian life. Health and Wellness: Point 4.
- PHED 140 Weight Training** (.5, F&S)  
Evaluate personal health-related physical fitness components and incorporate exercise prescription through the venue of Weight Training. Develop basic skills and an appreciation for physical activity and lifetime fitness in Christian Life. Health and Wellness: Point 2 or 3.

- PHED 145 Continuing Ballet** (1, OD)  
Provides the student with the concepts, technique and practice that is required to advance beyond the beginning ballet level. Health and Wellness: Point 3.
- PHED 146 Beginning Jazz Dance** (.5, S)  
Provides beginning student with the introductory concepts and proper classical technique necessary to participate and appreciate the art of jazz dance. Health and Wellness: Point 3.
- PHED 147 Soccer** (.5, F)  
Physical coordination and conditioning; basic skills; appreciation for physical activity and lifetime fitness in Christian life. Health and Wellness: Point 4.
- PHED 148 Continuing Jazz** (1, OD)  
Physical coordination and conditioning; basic skills; appreciation for physical activity and lifetime fitness in Christian life. Health and Wellness: Point 3.
- PHED 208 First Aid/CPR/AED** (.5, F&S)  
Basic understanding of lifesaving techniques relative to first aid and cardiopulmonary resuscitation. The course is taught via instructional videos and by the practice of several emergency procedures on human subjects and manikins per standards established by the American Red Cross. (No Integrative Studies credit.)
- PHED 212 Foundations of Physical Education and Health** (2, F10)  
Basic philosophical principles, history, scientific foundation, and contemporary significance of physical education and health education; educational aims and objectives; physical education/health education in the modern school curriculum.
- PHED 220 Adventure Sports Mayterm** (Activity Lab) (3 or 4, Mayterm)  
Experiential learning of a variety of adventure sports (backpacking, climbing, mountain biking, kayaking/rafting) in canyons of the Adirondack or Rocky Mountain regions; teaching experience and leadership development, fitness training for lifetime benefits; personal and spiritual growth; environmental stewardship; principles of aerobic conditioning; developing training programs. Health and Wellness: Point 2 or 4.
- PHED 222 Traditional Gymnastics II** (Activity Lab) (1, OD)  
Olympic-style progressions for floor exercise and all apparatus, enhance performance base established in Educational Gymnastics; develop confidence and proficiency with techniques; professional involvement. Permission from instructor.
- PHED 225 Teaching Elementary Physical Education** (2, F11)  
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 as part of PHED 235.
- PHED/CFRM 227 Sports Ministry: The Integration of Faith and Sport** (4, S11)  
Students will develop an understanding of the sports culture and how the gospel can be effectively communicated within this context. They will consider sociological factors, historic developments and the Biblical text in order to build a theological foundation for the practice of sports ministry. Church and para-church organizations will be examined as well as evangelism and discipleship methodologies. Students will practice communication skills within sports ministry settings.
- PHED 228 Lifeguarding** (Activity Lab) (1, M)  
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. Health and Wellness Point 3.
- PHED 229 Educational Gymnastics and Movement Foundations** (2, F)  
Introduction to teaching gymnastics in a K-12 curriculum; floor exercise, tumbling, basic skills for limited apparatus; routine development; safety and spotting; conceptual approach to human movement; techniques for dealing with force, time and space, and flow as they relate to movement; the use of lead-up experiences, skills, and rhythms in games; teaching methods. Health and Wellness: Point 3.

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**PHED 230 Aquatics** (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. 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. Concurrent registration with PHED 308 unless otherwise approved. Health and Wellness: Point 3.

**PHED/BIOL 232 Epidemiology** (2, M OD)  
This course will study the cause and transmission of human diseases within a population relating not only to the infectious agent but also the genetic makeup of the community and the social, behavioral, economic and cultural factors of the people affected. Lectures will address the history of public health and epidemiology including cost/benefit analyses, public health policy, and the implications of case reporting to the CDC and local public health departments. The basic principles of the science of epidemiology, with an emphasis on identifying patterns and formulating testable hypothesis to the disease outcome, understanding the types of epidemiological studies, clinical and community trials and the essential biostatistics involved in any experimental design will be addressed.

**PHED x95 ST: Advanced Concepts of Personal Training** (4, M OD)  
This course is designed to prepare students with the knowledge, skills, and competence to conduct fitness assessments and to design exercise programs for various populations. Students will gain practical experience related to healthy fitness management programs and will learn safety techniques and basic sports nutrition. This course will prepare the students to take the National Council on Strength and Fitness (NCSF) personal trainer exam.

**PHED 235 Elementary Teaching: Practicum I** (0.5, F11)  
Meets one day per week in the elementary setting at the same time as scheduled for the Teaching Elementary PE course. Focus on observing children and the learning environment, assisting the classroom teacher with daily routines, and supporting the learning of individual children. Increased responsibilities as the semester progresses including planning and teaching lessons under the guidance of the classroom teacher. Placement will switch half way through the semester.

**PHED 237 Holistic Health** (4, 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. Field experience required. Health and Wellness: Point 1.

**PHED 246 Care, Prevention, and Management of Athletic Injuries** (2, F)  
Introduction to the principles of prevention of athletic injuries and managing injuries when they occur. Students will develop an understanding of common injuries, illness, and disorders of the head, trunk, and extremities. Includes techniques and philosophies of taping, wrapping, padding and bracing for prevention, management and treatment of athletic injuries.

**PHED 247 Recognition and Evaluation of Athletic Injuries** (4, S)  
Pathology and evaluation of most common injuries/conditions found in the lower and upper extremities (i.e., ankle, knee, shoulder). History; observation; palpation; active and passive range of motion; muscle, neurological, and functional testing; and postural assessment. Prerequisite: PHED 246 or permission of the instructor.

**PHED 248 Inclusive Physical Education (Activity Lab)** (2, F10)  
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. Fifteen hours of field experience required as part of PHED 249. Prerequisites: BIOL 217; PHED 212; or permission of the instructor.

**PHED 249 Inclusive Physical Education Practicum** (.5, F10)  
Meets one day per week in the inclusive physical education setting at the same time as scheduled for the Inclusive Physical Education course. Focus on observing children and the learning environment, assisting the classroom teacher with daily routines, and supporting the learning of individual children. Increased responsibilities as the semester progresses including planning and teaching lessons under the guidance of the classroom teacher.

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- PHED 253 Teaching Track and Field** (1, M)  
Basic understanding of skills and teaching methods for selected track and field events including high jump, long jump, triple jump, sprint mechanics, hurdling, sprint starts, relays, shot-put, and discus. Students will examine preparatory activities, drills, mechanical analysis of skills and unit and lesson planning; principles of aerobic conditioning; and developing training programs. Students will also help organize and run a local track and field event.
- PHED 254 Teaching Net/Wall/Target Sports** (2, F11)  
Basic understanding of skills and teaching methods for selected net, wall, and target sports including badminton, golf, racquetball, tennis, and volleyball. Students will examine preparatory activities, drills, mechanical analysis of skills, and unit and lesson planning; principles of aerobic conditioning; developing training programs.
- PHED 255 Teaching Team Passing/Striking/Fielding Sports** (2, F10)  
Basic understanding of skills and teaching methods for selected team passing, striking, and fielding sports including basketball, flag football, soccer, softball, and team handball. Students will examine preparatory activities, drills, mechanical analysis of skills, and unit and lesson planning; principles of aerobic conditioning; developing training programs.
- PHED 256 Cooperative Games** (1, OD)  
Basic understanding of skills and teaching methods for encouraging the growth and development of skills in leadership, cooperation, and teamwork. Students will examine activities and systems of instruction that promote the development of these skills in their physical education classes.
- PHED/CRFM 275 Methods & Administration of Sports Ministry** (2, S12)  
Students will evaluate sports ministry strategies within local church, parachurch, mission and educational settings. They will review and develop curriculum and programs for use within these settings. Students will develop communication skills for a sports audience and will examine evangelism and discipleship methods.
- PHED 281 Pre-Physical Therapy Field Experience I** (2, F)  
Mastery of competencies in injury prevention, recognition, and assessment; taping and bracing techniques; understanding of the lower extremity; and medical documentation. *Requires 25 hours of observation in each of three settings: orthopedics, pediatrics, and geriatrics, with an additional 25 hours assisting with rehabilitation in the Houghton College training room. (Hours logged prior to taking this class may count with instructor's pre-approval.) Pre-PT majors only. Pre-/Co-Req: PHED 247.*
- PHED 290 Sociology of Sport** (3, OD)  
Sport as a social institution and microcosm of society. Topics: socialization into and via sport; social stratifications; sport and gender, race, economics, politics, religion, social change, education.
- PHED 302 Teaching Secondary Physical Education** (2, F10)  
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 as part of PHED 303.
- PHED 303 Secondary Teaching: Practicum II** (0.5, F10)  
Meets one day per week in the secondary setting at the same time as scheduled for the Teaching Secondary PE course. Focus on observing children and the learning environment, assisting the classroom teacher with daily routines, and supporting the learning of individual children. Increased responsibilities as the semester progresses including planning and teaching lessons under the guidance of the classroom teacher. Placement will switch half way through the semester.
- PHED 305 Sports Ministry Field Practicum** (2, M/OD)  
A supervised field experience in a sports ministry setting: church, camp, mission organization or para-church sports ministry. The student will relate theory to practice through a cooperative learning relationship between the ministry organization, student and advisor.
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**PHED 306 Principles of Coaching and Sport Management** (4, 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. Theories, philosophy, and systems of management; program development, finance, purchasing and care of equipment, public relations, facility and personnel management, and legal liability.

**PHED 308 First Aid and Safety** (2, S)

Gives students the knowledge and skills necessary to administer first aid in a reasonable and prudent manner. American Red Cross, First Aid-Responding to Emergencies and CPR/AED for the Professional Rescuer certification will be given upon satisfactory completion of all requirements. Concurrent registration with PHED 230 unless otherwise approved.

**PHED 310 Organization of School Health** (2, F11)

Examination of philosophical, theoretical, and practical aspects of health education curriculum. Addresses the processes and issues associated with planning, implementing, and organizing a coordinated school health program in accordance with national and state guidelines. Field experience required.

**PHED 320 Measurement and Evaluation in Physical Education** (4, F11)

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 325 Fitness Assessment and Evaluation** (2, OD)

Practical application and fundamental understanding of measurement techniques associated with the field of fitness and fitness testing. Use of descriptive and inferential statistics in proposing and conducting research and in understanding relevant material from the field.

**PHED 330 Physiology of Exercise** (4, S)

The analysis of the physiological changes that occur in the body during exercise, after exercise, and during a training period. Prerequisites: BIOL 217, 218, or permission of instructor. Health and Wellness: Point 2.

**PHED 341 Kinesiology** (4, F)

The analysis of the musculoskeletal system and its interrelationship with human movement. Prerequisites: BIOL 217, 218 or permission of instructor.

**PHED 347 Therapeutic Modalities** (2, F11)

To promote an understanding of the indications, contraindications, applications, and physiological effects of various therapeutic modalities and manual techniques used in rehabilitation of injuries.

**PHED 348 Therapeutic Exercise Management of Injuries** (2, S11)

Mechanisms, signs, symptoms, immediate and long-term rehabilitation procedures for injuries affecting extremities and axial skeleton. Rehabilitation procedures focus on range of motion activities, joint mobilization, open vs. closed kinetic chain activities, therapeutic exercises and equipment.

**PHED 350 Health and Physical Fitness for Senior Adults** (2, OD)

Holistic health and wellness of adults 55 years and older. Emphases: physical fitness, program planning, development, evaluation; principles and practices of leadership.

**PHED 381 Pre-Physical Therapy Field Experience II** (2, S)

Mastery of competencies in injury prevention, recognition, and assessment; taping, and bracing techniques; understanding of the back, and upper extremity; and developing rehabilitation programs. *Requires 25 hours of observation in each of three settings: orthopedics, cardiac, and neural rehabilitation with an additional 25 hours assisting with rehabilitation in the Houghton College training room. (Hours logged prior to taking this class may count with instructor's pre-approval.) Pre-PT majors only. Pre-/Co-Requisite: PHED 348.*

**PHED 405 Student Teaching in Physical Education K-6** (6, F&S)

Taken concurrently with PHED 407 and 411. Students must also register for EDUC 203 and 204.

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**PHED 406 Student Teaching in Physical Education/Health Education K-6** (6, OD)

Taken concurrently with PHED 408 and 412. Students must also register for EDUC 203 and 204.

**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. **Note: see Educ. Dept. policy on “Employment and Activities While Student Teaching.” Student must have overall GPA of 2.7.** Taken concurrently with PHED 405 and 411. Students must also register for EDUC 203 and 204.

**PHED 408 Student Teaching in Physical Education/Health Education 7-12** (6, OD)

Observation and teaching in elementary and secondary programs. Off-campus assignment under the direction of skilled teachers. Senior year. Student must register for PHED 412 concurrently. **Note: see Educ. Dept. policy on “Employment and Activities While Student Teaching.” Student must have overall GPA of 2.7.** Taken concurrently with PHED 406 and 412. Students must also register for EDUC 203 and 204.

### **SENIOR CAPSTONE for TEACHING OPTION**

**PHED 411 Issues Seminar in Physical Education** (2 F&S)

Critical analysis and synthesis of student teaching experience and of crucial issues in education. Taken concurrently with PHED 405 and 407. Students must also register for EDUC 203 and 204.

**PHED 412 Issues Seminar in Physical Education/Health Education** (2, OD)

Critical analysis and synthesis of student teaching experience and of crucial issues in education. Taken concurrently with PHED 406 and 408. Students must also register for EDUC 203 and 204.

**PHED 415 Senior Capstone for Non-Certification: Issues Seminar** (2, OD)

Analysis and synthesis of current issues or relevant topics of interest related to the discipline. Includes individual or group research on the chosen area and formal presentation of the research.

### **SENIOR CAPSTONE for PHYSICAL FITNESS OPTION**

**Either** four hours of PHED 420 **or** four hours of PHED 423 *and* 424 *and* 426.

**PHED 420 Internship: Physical Fitness** (4, F&S)

Observation and practical experience in a public or private agency. Off-campus assignment under the direction of skilled professionals. **NOTE:** Students choosing this option must complete a total of four hours in PHED 420 or a total of four hours from PHED 423, 424, and 426. The four hours in PHED 420 includes one hour of topics in current issues. Overall GPA of 2.5 required.

**PHED 423 Physical Fitness Practicum I** (1, F&S)

Directed observation in off-campus fitness center programs with hands-on practical experience. Requires at least 50 observation hours from two or more agencies; sites to be negotiated. Overall GPA of 2.5 required.

**PHED 424 Physical Fitness Practicum II** (1, F&S)

Directed observation in off-campus rehabilitation programs with hands-on practical experience. Requires at least 50 observation hours from two or more agencies; sites to be negotiated. Overall GPA of 2.5 required.

**PHED 426 Issues Seminar/Fitness Testing and Prescription** (2, F&S)

Critical analysis and synthesis of critical issues in the area of health and physical fitness. On-campus fitness testing; prescriptions and follow-ups will be conducted by the student. Prerequisites: PHED 423 and 424.

**PHED 191, 291, 391, 491 Independent Study** (1, 2, 3 or 4)

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

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** (4, OD)

Physics BA, BS (majors and minor)

Department of Physics and Earth Science: Mark E. Yuly, chair. Keith A. Horn, Associate Dean

Faculty: Donell Brandon Hoffman, Mark E. Yuly, Christopher M. Wells

Web site: [www.houghton.edu/academics/programs/physics/](http://www.houghton.edu/academics/programs/physics/)

Phone: 585.567.9280

**Physics Major: BS** (35 hours in major; 16 in prerequisites; 12 in co-requisites)  
**Physics Minor:** (12 hours of credit in physics courses numbered 211 or above)

General Information

The BS physics major provides a broad variety of experiences with the theoretical basis of physics, its applications, experimental and mathematical techniques, and its study using computer programming and simulations. It serves as an excellent preparation for graduate work in physics or related fields, such as engineering, astrophysics, biophysics, physical oceanography, geophysics, and meteorology. Students may also use the physics major as preparation for attending professional school in fields such as medicine, dentistry, and law.

The requirements for the BS in physics are as follows:

Prerequisites (16):		
PHYS 151, 152	General Physics I, II .....	8
MATH 180	Calculus and Its Origins or	
MATH 181	Calculus I .....	4
MATH 182	Calculus II .....	4
Co-requisites (12):		
MATH 241	Differential Equations .....	4
MATH 321	Multivariate Calculus .....	4
CHEM 151	General Chemistry I .....	4
Required (35) which must include:		
PHYS 251	Mechanics I .....	4
PHYS 352	Mechanics II .....	4
PHYS 212	Modern Physics .....	4
PHYS 355	Thermal Physics .....	4
PHYS 356	Quantum Mechanics .....	4
PHYS 353	Electricity and Magnetism I .....	4
PHYS 354	Electricity and Magnetism II .....	4
PHYS 471,472	Physics Project Lab .....	2
PHYS 482	Senior Capstone: Physics Seminar .....	1
An additional 4 hours in PHYS courses above 200 level		
Additional recommended supporting courses include:		
MATH 261	Linear Algebra .....	4
CHEM 152	General Chemistry II .....	4
CSCI 211	Programming I .....	4
CSCI 236	Data Structures and Algorithms .....	4
PHIL 360	History and Philosophy of Science .....	4

**Computational Physics Major: BS** (35 hours in major; 16 in prerequisites; 12 in co-requisites)

General Information

Computational physics involves the use of computers in modeling and analyzing complex systems. This major is available to those students interested in studying physics with an emphasis on the use of computers. It provides students with highly sought-after computer and problem-solving skills in a growing area of interdisciplinary study. (See **Computational Physics**)



**Applied Physics Major - Engineering Emphasis: BS** (31 hours in major; 17 in prerequisites; 15 in co-requisites) See Engineering section in this catalog for details.

**General Information**

This major is for students interested in the engineering applications of physics and is preparation for an engineering-related career or graduate school in engineering or physics. (See Engineering)

**Physics Major: BA** (25 hours in major; 12 in prerequisites; 8 in co-requisites)

The BA major is particularly appropriate for students interested in a double major with another field or for students completing a major in inclusive childhood or secondary education.

Students interested in working toward certification to teach Physics at the elementary level can do so by double-majoring in Physics and Inclusive Childhood Education. Students interested in working toward certification to teach Physics at the middle and high school levels can do so by double-majoring in Physics and Adolescence Education (ADE). Please see the Education Department section of this catalog for details.

The requirements for the BA in physics are as follows:

Prerequisites (12):		
PHYS 151	General Physics I .....	4
MATH 180	Calculus and Its Origins or	
MATH 181	Calculus I .....	4
MATH 182	Calculus II .....	4
Co-requisites (8):		
MATH 241	Differential Equations .....	4
MATH 321	Multivariate Calculus .....	4
Required (25) which must include:		
PHYS 152	General Physics II.....	4
PHYS 251	Mechanics I .....	4
PHYS 212	Modern Physics .....	4
PHYS 355	Thermal Physics .....	4
PHYS 353	Electricity and Magnetism I .....	4
PHYS 482	Senior Capstone: Physics Seminar .....	1
An additional 4 hours in PHYS courses above 200 level		
Additional recommended supporting courses include:		
CHEM 151, 152	General Chemistry I, II .....	4, 4
CSCI 211	Programming I .....	4
PHIL 360	History and Philosophy of Science .....	4

COURSE DESCRIPTIONS

**PHYS 102 General Astronomy** (4, F/S)  
A survey of modern astronomy with emphasis on the structure and dynamics of stars, galaxies and the universe. Current theories of cosmic origins. Three lecture, three laboratory hours each week. Lab Science or 2<sup>nd</sup> Science.

**PHYS 130 How Things Work** (4, S11)  
Introduction to the science behind a variety of modern technological advancements. Possible topics may include rockets, musical instruments, plasma screens, hybrid automobiles and nuclear reactors. The physical principles relevant to each technology will be explored. Three lecture, three laboratory hours each week. Lab science or 2<sup>nd</sup> science.

**PHYS 140 Physics of Music** (2, May, 12)  
This course will focus on the physics of various phenomena associated with music. A quantitative, mathematical approach will be used, and students will apply the methods of science to gain a greater understanding of music. Topics will include harmonics, frequency and tone, overtones, spectral analysis and the physics of scales. 2<sup>nd</sup> Science.

**PHYS 151, 152 General Physics I, II** (4/4, F/S)  
Introduction to physics focusing on central concepts and problem solving. Topics: mechanics, energy and

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waves (I) and thermodynamics, electricity, magnetism, optics and modern physics (II). 3 lecture & 3 lab hrs/week. Prerequisite: MATH 181 (or evidence of adequate math preparation) for PHYS 151; PHYS 151 for PHYS 152. Lab Science or 2<sup>nd</sup> Science: PHYS 151 only.

**PHYS 212 Modern Physics** (4, F10)

Exploration of the implications of Special Relativity using the Lorentz transformation and conceptual introduction to General Relativity. Elementary quantum mechanics using the Schrödinger equation applied to atoms, molecules, solids, nuclei, and elementary particles. 3 lecture & 3 lab hrs/week. Prerequisite: PHYS 152.

**PHYS 215 Statics & Engineering Design** (4, S12)

Introduction to engineering design in the context of the basic mechanics of static structures and machines. Topics: multidimensional vector analysis of particles and rigid bodies in equilibrium, structural analysis of trusses and frames, friction, center of gravity, and moment of inertia. Introduction, by design project, to topics of technical drawing using CAD software, MATLAB, and machine shop skills. 3 lecture & 3 lab hrs/week. Prerequisite: PHYS 151.

**PHYS 251 Mechanics I** (4, F10)

A development of classical Newtonian mechanics focusing on the dynamics of particles and rigid bodies in one, two, and three dimensions. Topics covered will include work and energy, central forces, collisions, non-inertial frames of reference, and oscillations. Prerequisites: PHYS 151 and MATH 182; pre/corequisite: MATH 241.

**PHYS 258 Analog Electronics** (4, S11)

A study of analog circuits comprised of resistors, capacitors, inductors, op-amps and DC and AC voltage and current sources. Methods of analyses: Kirchoff's Laws, node/mesh, network theorems, bode plots, Laplace transforms, two-port networks. Some software tools explored. 3 lecture & 3 lab hrs/week. Prerequisite: PHYS 152; pre/coreq: MATH 241.

**PHYS 259 Digital Electronics** (4, S12)

An introduction to digital circuits including Boolean algebra, logic gates, Karnaugh maps, decoders, flip-flops, registers, microcomputers, and interface devices. Characteristics and operation of digital integrated circuits will be covered. Some software tools will also be explored. Three lecture and 3 laboratory hours each week. Prerequisite: PHYS 152.

**PHYS 260 Optics** (4, OD)

Introduction to the study of light. 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. 3 lecture & 3 lab hrs/week. Prerequisites: PHYS 152 and MATH 182. Pre/co-requisite: MATH 241.

**PHYS 352 Mechanics II** (4, S11)

Newton's Laws and conservation laws will be reviewed, followed by an examination of Hamilton's Principle and the Lagrangian formulation of mechanics. Using these tools, topics such as central force motion, dynamics of systems of particles and rigid bodies, and coupled oscillations and normal modes will be explored. Prerequisite: PHYS 251.

**PHYS 353 Electricity and Magnetism I** (4, F11)

An introduction, with applications, to the classical theory of electric and magnetic fields. The course will begin with an overview of vector calculus for electromagnetic theory and will develop Maxwell's equations. 3 lecture & 3 lab hrs/week. Prerequisite: PHYS 152; Pre/co-requisite: MATH 321.

**PHYS 354 Electricity and Magnetism II** (4, S12)

An examination of the role of special relativity in electromagnetic phenomena. Maxwell's equations introduced in a relativistic manner, and used to investigate the properties of electromagnetic waves. Includes techniques for solving the equations of Laplace and Poisson in electrostatics. Prerequisite: PHYS 353; pre/co-requisite: MATH 261 recommended

**PHYS 355 Thermal Physics** (4, F11)

Analysis of laws of thermodynamic equilibria in solid, liquid, and gaseous phases; introduction to statistical

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mechanics in terms of the microcanonical, canonical and grand canonical ensembles. Prerequisites: PHYS 152, MATH 241.

**PHYS 356 Quantum Mechanics** (4, S11)

Modern quantum mechanics with an emphasis on matrix methods. Topics to be covered include time evolution of wave functions, harmonic oscillators, angular momentum, central potentials, the hydrogen atom and perturbation theory. Prerequisites: PHYS 212, MATH 241; pre/co-requisites: MATH 261 recommended.

**PHYS 471, 472 Physics Project Laboratory** (1/1, F/S)

Participation with a faculty member in an individual research project. May be repeated for credit.

**PHYS 482 Senior Capstone: Physics Seminar** (1, S)

Written and oral presentation of work completed in PHYS 471/472 (for Physics BS) or on a topic of current interest in physics journals (for Physics BA).

**PHYS 295, 395, 495 Special Topics in Physics** (1, 2, 3 or 4)

Introduction to areas of physics not treated in other courses.

**PHYS 391, 392, 491, 492 Independent Study** (1, 2, 3, or 4)

**PHYS 393 Summer Collaborative Research in Physics** (1, 2, 3 or 4, Summer)

Research in collaboration with a physics faculty member focusing on a current area of physics research. Students work individually or in small teams reviewing literature, designing and building apparatus, collecting and analyzing data, and describing their work in written form. This course usually involves travel to other laboratories such as Los Alamos National Laboratory or Cornell University. May be repeated for credit. Prerequisite: Permission from instructor.

**PHYS 480 General Science Seminar** (1, S)

Written thesis and oral presentation on a topic selected for interdisciplinary breadth describing current scientific research in the area of the student's concentration based on a thorough review of scientific literature.

**PHYS 496 Honors in Physics** (4, OD)

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## Political Science (major and minor)

**Department of History and Political Science:** Peter C. Meilaender, chair. Paul D. Young, Associate Dean

**Faculty:** B. David Benedict, Peter C. Meilaender, Ronald J. Oakerson

**Web site:** [www.houghton.edu/academics/programs/political\\_science](http://www.houghton.edu/academics/programs/political_science)

**Phone:** 585.567.9440

**Major:** (36 hours)\*

**Minor:** (16 hours)\*

**Political Science Major:** The political science major helps students develop an understanding of politics that integrates four elements: a grasp of fundamental theoretical concepts and problems of political life; an understanding of how those concepts and problems shape and inform the domestic politics of the United States; an understanding of how those concepts and problems shape and inform the world of international relations; and finally a sense of how our understanding of those same concepts and problems is enriched by the comparative analysis of different countries and political systems. In all of these ways, the major helps prepare students for responsible citizenship. It is helpful to students contemplating careers in teaching, government, law, diplomacy, international service, business, and journalism.

The major consists of 36 hours:\*  
24 hours of core requirements:

POLS 201	Introduction to Politics .....	4
	or POLS 202 Immigration and Citizenship .....	4
	or POLS 203 Aristotle .....	4
	or POLS 204 Introduction to Democracy .....	4
POLS 212	Social Science Research Methods .....	4
POLS 220	The American Political System .....	4
POLS 230	Introduction to International Relations .....	4
POLS 260	Introduction to Political Thought .....	4
POLS 480	Senior Capstone: Politics Seminar .....	4
	12 hours of political science electives*	
	(Majors may fulfill up to 4 of these 12 hours through an internship)	

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:** 16 hours of POLS coursework.\* Students may take no more than two of the following for the minor: POLS 201, 202, 203, and 204.

\*If a student takes a Mayterm course worth only 3 credit hours, s/he may complete the major with only 11 hours of elective credit and 35 hours total. The minor can be completed in 15 hours in the same way.

## COURSE DESCRIPTIONS

**POLS 201 Introduction to Politics** (4, F, S)  
Considers nature, goals, and processes of politics in theory and practice; surveys major forms of government; explores key issues of world politics. Community: Political Science.

**POLS 202 Immigration and Citizenship** (4, OD)  
Course explores the question, what does it mean to be a member of a political community? And how does one become a member? Typically considers historical development of American immigration and citizenship policy; philosophical analyses of citizenship and the right of movement; problems of integration and diversity; comparative policy analysis; and the role of citizenship in a changing world. Community: Political Science.

**POLS 203 Aristotle** (4, OD)  
An introduction to fundamental political concepts by means of a careful study of the *Ethics* and *Politics* of Aristotle. Topics considered include the nature of political science, the relation between ethics and politics, community, justice, equality, law, constitutionalism, property, citizenship, conflict, institutional design, different regime types, the purposes of political life, and the relation between empirical and normative analysis. Community: Political Science.

**POLS 204 Introduction to Democracy and Governance** (4, OD)  
Introduces students to the limits and possibilities of democratic governance. Develops key ideas and concepts, e.g., liberty, equality, justice, representation, deliberation, and the rule of law, and relates them to the analysis of democratic institutions such as elections, legislatures, courts, constitutions, and federations. Community: Political Science.

**POLS 210 World Regional Geography** (4, M)  
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 212 Social Science Research Methods** (4, F)  
Basic scientific method, application to social phenomena; procedures and methodological problems in vari-

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ous types of social research; methods of data analysis.

**POLS 220 The American Political System** (4, S)  
The foundation course in American politics. Focuses on the basic design of the American political system, including constitutionalism, federalism, and the separation of powers, with special attention to the Founding principles as explained in the *Federalist*. Additional topics can include political parties, elections, Congress and the President, bureaucracy, the judiciary, and state and local government.

**POLS 225 Introduction to Environmental Governance** (4, F)  
Introduces students to alternative civic and governmental approaches to environmental problems, beginning with the political history of the conservation movement and considering questions related to law and policy, conflict and collaboration, value trade-offs, intergenerational fairness, and sustainability, including Christian responses to environmental issues. Fieldwork component. Community: Political Science.

**POLS 227 Governing Rural Communities** (4, OD)  
A study of local governance and politics in a rural context, exploring town, county, and regional perspectives with an emphasis on policy analysis and civic engagement. Includes a fieldwork component combining research and service learning.

**POLS 230 Introduction to International Relations** (4, F)  
Development of the international system of nation-states; effects of system structure and intrastate elements on international relations; concepts such as power, balance of power, sovereignty, interdependence, and issues such as foreign policy decision making, causes of war, and nuclear arms control.

**POLS 240 Comparing Nations** (4, OD)  
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 issues.

**POLS 260 Introduction to Political Thought** (4, F)  
Introduces students to the tradition of Western political thought from the ancient to the modern world through a close reading of important thinkers. By considering problems of community, obligation, order, justice, liberty, and freedom, the course equips students for careful normative reflection on public life.

**POLS/PHIL 322 Philosophy of Law** (2, F or S)  
Introduction to fundamental issues surrounding the concept of law, such as the debate between natural law theorists (who maintain that there is a law above human law) and legal positivists (who deny this), as well as issues such as punishment and the basis of the legitimacy of legislative authority.

**POLS 325 Executive Power and the Presidency** (4, OD)  
Careful study of the nature of executive power and its embodiment in the American presidency. Focuses on the executive's role in our constitutional order and changes in that role over the course of America's political development.

**POLS 328 Governing Urban Communities** (4, OD)  
A study of local governance and politics in an urban context, exploring neighborhood, citywide, and metropolitan levels of organization with an emphasis on policy analysis and civic engagement. Includes a fieldwork component in Buffalo combining research and service learning. This course has a fee.

**POLS 329 Issues in Environmental Law and Policy** (4, M)  
Focuses on specific problems and recurrent issues, e.g., wetlands policy, endangered species, deforestation, and so forth. Topics vary. Offered in Mayterm, usually in a field setting.

**POLS 336 American Foreign Policy** (4, OD)  
Formulation and execution of U.S. foreign policy, especially since WWII. Special attention to foreign policy strategies in light of different conceptions of vital interests, threats to these interests, and appropriate responses.

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**POLS /HIST 341 Conceptualizing the City: An Exploration of the City in Western Culture** (4-6, F, S)

Explores the history of cities and the ideas that have shaped both their objective development – in terms of their material culture, their economic base, and their political structure – and our subjective experience of them. Also considers social science explanations of urban development (why cities?), 20<sup>th</sup> century trends (suburbanization, metropolitanization) and reactions to them, and ponders the future of cities in the 21<sup>st</sup> century. Reading ranges over works of history, philosophy, literary fiction, and social science. Throughout, connections to the Buffalo experience provide concrete (sometimes literally concrete) illustrations of ideas and their effects.

**POLS 345 Community Organization and Development** (4, F)

A comparative study of how local communities organize themselves to manage natural resources and provide collective goods and sources, with a focus on developing countries. Considers issues related to decentralization and sustainable development. Emphasis on analytic approaches to problem-solving.

**POLS 346 Governance and Development** (4, S)

A study of patterns of governance and politics typical of developing countries with an emphasis on relationships between governance and development.

**POLS/INCL 353 War & Terrorism in the Middle East: History and Politics** (4, F12)

This course explores three phenomena: (1) war and terrorism in general and in the Middle East in particular; (2) the history and politics of this region (with forays into geography, religion, society, culture, and economics); and (3) country-specific histories and politics. In-depth analysis of the religion-terrorism nexus, Arab-Israeli conflict and peacemaking, and the theory and practice of pacifism and just war.

**POLS 355 East Asia: History and Politics** (4, OD)

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** (4, S12)

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 362 Loyalty** (4, OD)

Careful consideration of the meaning, origin, objects, and limits of loyalty, with special attention to its political manifestations. Draws on a wide range of philosophical, political, legal, theological, and literary sources.

**POLS 364 The Roots of Conservatism** (4, OD)

Examines the origins of contemporary conservatism in the thought of three influential early modern thinkers: Edmund Burke, Adam Smith, and David Hume. Comparisons throughout with contemporary versions of conservative thought.

**POLS 366 Contemporary Political Thought** (4, M)

An introduction to a broad range of theoretical approaches within current Anglo-American political philosophy. Special focus on liberalism, communitarianism, multiculturalism, and feminism.

**POLS 393 Field Experience (Internship)** (1-4, 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 four hours of credit may be counted toward the major or minor. May be combined with an additional four hours of credit for POLS 391 Independent Study.

**POLS 425 Problems and Issues in American Politics** (4, OD)

Focuses on specific problems and recurrent issues in the study of American politics, including concerns related to elections, representation, accountability, public law, governance, and the constitutional order at all levels of government. Topics vary. Includes a research or field component.

- POLS 427 **American Constitutional Law**

(4, OD)

Careful analysis of the development of constitutional doctrine and interpretation from 1787 to the present. Emphasis on reading Supreme Court cases.
- POLS 437 **International Law and Organization**

(4, OD)

Introduces students to the fields of international law and international organization. Heavy emphasis on reading, analyzing, and briefing international law cases. Students examine issues of international organization from a number of theoretical perspectives, such as realism, liberal idealism, Marxism, and feminism.
- POLS 468, 469 **America and the World I, II**

(4, OD)

Exposes students to cutting-edge discussions of both the American polity and its role in world affairs by reading extremely current literature. Emphasis on the relation between normative theory and political practice. Topics considered include citizenship, American national identity, democracy, sovereignty, and globalization, but specific focus varies depending upon readings. Heavy reading load; emphasis on class discussion and student book reviews of material. Taught alternately as POLS 468 A&W I or POLS 469 A&W II, with a different reading list each time; students may take both 468 and 469 for credit.
- POLS 480 **Senior Capstone: Politics Seminar**

(4, 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 paper based on original research in both primary and secondary sources and similar in quality to what would be expected in the first year of graduate study.
- POLS 191, 291, 391, 491 **Independent Study**

(1, 2, 3, or 4)
- POLS 295, 395, 495 **Special Topics in Political Science**

(4, OD)

According to demand and interest, courses will be offered on a range of topics in any area of political science.
- POLS 496 **Honors in Political Science**

(4, S)

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Pre-Art Therapy

(Combined art and psychology program)

Department of Art: Jillian Sokso, Chair. James F. Wardwell, Associate Dean and

Department of Psychology and Sociology: Paul D. Young, chair and Associate Dean

Faculty Advisors: Jillian Sokso and Paul Young

Web site: [www.houghton.edu/academics/programs/art/pre-art\\_therapy.htm](http://www.houghton.edu/academics/programs/art/pre-art_therapy.htm)

Phone: 585.567.9440

Students interested in art therapy as a career may prepare for graduate study in the field by either majoring in art with a structured minor in psychology, or by majoring in psychology with a structured minor in art. Either path will enable the student to fulfill the undergraduate requirements for graduate school admission and the guidelines of the American Art Therapy Association.

**Art Major option:** The American Art Therapy Association requires a minimum of 12 semester hours in psychology, including Developmental Psychology and Abnormal Psychology. Some graduate programs recommend additional undergraduate psychology coursework. Students majoring in art should take the following courses for at least a minor in psychology:

PSY 213	Developmental Psychology
PSY 305	Abnormal Psychology
and at least two more courses selected from the following in consultation with Prof. Young:	
PSY 217	Adolescence and Emerging Adulthood
PSY 310	Experimental Methods (with a pre-requisite of PSY 309 Statistics)
PSY 314	Child Psychopathology
PSY 402	Counseling and Psychotherapy
PSY 410	Practicum in Psychology (in an art therapy setting)

**Psychology Major option:** The American Art Therapy Association requires a minimum of 18 semester hours in studio art, so that the student can “demonstrate proficiency and disciplined commitment in art making... using a variety of art materials and processes”. Students majoring in psychology should take the Applied/Pre-Therapy track, including a practicum in an art therapy setting. They should also take at least 18 credits in studio art classes to cover a variety of media, such as the following, selected in consultation with Prof. Sokso:

ART 271	Ceramics I
ART 241	Two-Dimensional Design
ART 242	Three-Dimensional Design
ART 211	Drawing I
ART 245	Graphic Design I
ART 221	Painting I
ART 161	Digital and Photographic Process Printmaking

In addition to the options outlined above, a student interested in Art Therapy could complete a double major in art and psychology. Such students should consult with both Prof. Sokso and Prof. Young about appropriate selection of courses.

# Pre-health Professions

**Faculty Advisors:**

Matthew K. Pelletier (pre-Pharmacy D)  
Jaime Potter (pre-medical, pre-osteopathy, pre-dental, pre-optometry, pre-chiropractic)  
Aaron M. Sullivan (pre-veterinary, pre-physical therapy, pre-physician assistant)  
**Phone:** 585.567.9280

Through Houghton’s curricula in Integrative Studies and the sciences, interested students will receive excellent pre-professional preparation for a career in a wide variety of allied health fields, including medicine (physician, nurse, physician assistant, nurse practitioner) and dentistry, as well as physical therapy, chiropractic and veterinary medicine. Because the prerequisite courses for these programs may lay the foundation for a major in biology or chemistry, many students desiring to attend these types of training programs major in one of these sciences. However, students may choose to major in any field of study in which they have a strong interest, being careful to fulfill any necessary science requirements as well. In fact, many health profession schools encourage students to major in fields outside of the sciences. In any case, students should pay close attention to the specific admission requirements of schools to which they intend to apply.

**Pre-medical Training:**

Allopathic (awarding an M.D.) and osteopathic (awarding a D.O.) medical schools are very competitive, receiving far more applications each year than the limited number of available openings. Admission committees seek well rounded individuals with outstanding academic achievement at the undergraduate level. Ensuring these two qualities is vital if an applicant is to receive serious consideration for admission.

Pre-medical students should begin early seeking out opportunities to demonstrate a commitment to community service and to gain practical experience in the medical field. An example of the opportunities offered at Houghton College for students to gain such experiences in the context of elective coursework includes a semester long course in Medical Ethics (which offers a service learning experience in a health related venue).

The two academic benchmarks used by medical schools in screening applicants are the Medical School Application Test (MCAT) and college GPA. Strong performance in both of these is necessary in order to maximize one’s chance of being accepted to medical school. Pre-medical students should expect to work diligently from the very beginning of their college experience in order to assure their best preparation for the MCAT. The MCAT is usually taken during the spring of the junior year to support an application for medical school matriculation in the fall following college graduation. Thus, those who intend to follow this timeline for application to medical school should complete the courses needed for MCAT preparation (one year of General Biology, one year of General Chemistry followed by one year of Organic Chemistry, one semester of Calculus



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followed by one year of Physics) by the end of their junior year. For specific course information please refer to the course descriptions in the appropriate departmental section of the catalog. Dr. Jaime Potter, pre-medical advisor, can supply more information.

***Pre-Pharmacy D Program (with University of Buffalo) See Pre-Pharmacy section.***

***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, is necessary for admission. Contact Dr. Aaron Sullivan, pre-veterinary advisor, for further information.

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## Pre-law

**Faculty Advisors:** Peter C. Meilaender, Ron J. Oakerson, W. Christopher Stewart

**Web site:** [www.houghton.edu/academics/programs/pre-law](http://www.houghton.edu/academics/programs/pre-law)

From the Mosaic law of the Pentateuch and the pugnacious speeches of the courts of Athens, the practice and study of law have roots deep in western history. Today, law continues to play a critical role in helping the dynamic world of the 21st-century function effectively. Politics, economics, technology--in an increasingly globalized world, every aspect of human culture is enmeshed in a web of national and international legal institutions. Indeed, few fields so deeply combine theory and practice as does the law, opening diverse avenues for applying the tools of the intellect to the problems of society.

Houghton's emphasis on the liberal arts provides a broad range of study as well as specific skills in critical thinking, reading comprehension, research, and oral and written communication. Organizations such as the American Bar Association ([www.abanet.org](http://www.abanet.org)) and the Law School Admissions Council ([www.lsac.org](http://www.lsac.org)) recommend precisely this sort of preparation for students planning to attend law school.

The Pre-Law Program is built around a personal, individualized relationship with one of the college's pre-law advisors. Students considering law school come from all majors and minors--no particular major is required. The pre-law advisors work with each student to develop a program of study that complements his or her chosen major by emphasizing the development of analytical thinking, habits of thoroughness, intellectual curiosity, scholarship, and the ability to organize data and communicate results. We recommend a balanced selection of courses, drawn from areas such as logic and critical thinking; communication, public speaking, debate, and writing; American history and politics; philosophy and ethics; mathematics and accounting; and economics, sociology, or other social sciences. These recommendations directly reflect law school admissions expectations.

The pre-law advisors also encourage students to consider additional forms of relevant preparation, such as internships in local law offices or opportunities for research and field experience. And they work closely with the Office of Career Services on matters such as LSAT preparation and the law school application process. The Pre-Law Program also sponsors various events, including the college's annual Constitution Day celebration and an associated reading group; excursions to law offices, courtrooms, or regional points of interest; and visits with members of Houghton's extensive network of alumni attorneys.

In addition to attending law school, pre-law students discover a range of callings, including graduate work in political science, philosophy, or business, as well as careers in law-related fields such as criminal justice, sociology, development, and journalism. The preparation required for success in law school translates well to many of the professions.

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# Pre-Pharmacy with University at Buffalo PharmD program (Biology BA Major)

**Department of Biology:** Matthew K. Pelletier, chair. Keith A. Horn, Associate Dean

**Faculty:** Matthew K. Pelletier, Jamie L. Potter, Aaron M. Sullivan, James M. Wolfe

**Part-time:** Dr. David A. Brubaker, Eli Knapp

**Web site:** [www.houghton.edu/academics/programs/biology/](http://www.houghton.edu/academics/programs/biology/)

**Phone:** 585.567.9280

**Biology: BA** (26 hours in major; 8 prerequisites; 8 co-requisites; plus prerequisites for admission to UB PharmD program)

Prerequisites (8):	
BIOL 151, 152	General Biology ..... 8
Required (26) which must include:	
BIOL 217, 218	Human Anatomy and Physiology ..... 8
BIOL 242	Microbiology ..... 4
BIOL 251	Genetics ..... 4
BIOL 482	Senior Capstone: Senior Seminar ..... 2
BIOL XXX	Electives ..... 8 (to be met at UB)
Co-requisites (8):	
CHEM 151, 152	..... 8
UB prerequisites for Admission to UB PharmD Program	
CHEM 241, 242	Organic Chemistry I, II..... 8
CHEM 332	Biochemistry ..... 4
MATH 182	Calculus II ..... 4
PHYS 151	General Physics I ..... 4
PSY 309	Statistics ..... 4
<i>Two writing courses required (one meets Integrative Studies)</i>	
<i>One social behavioral science course (meets one Community IS requirement)</i>	

The PharmD program is a 3-year (Houghton) plus a 4-year (UB) program and acceptance to the University of Buffalo is not guaranteed.

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# Pre-physical Therapy (Biology BA major)

**Department of Biology:** Matthew K. Pelletier, chair. Keith A. Horn, Associate Dean

**Faculty:** Dr. David A. Brubaker, Deanna Hand, D. Brandon Hoffman, Irmgard K. Howard, Richard A. Jacobson, Sandra D. Johnson, Matthew K. Pelletier, Aaron M. Sullivan, James M. Wolfe

**Web site:** [www.houghton.edu/academics/programs/biology/pre-pt.asp](http://www.houghton.edu/academics/programs/biology/pre-pt.asp)

**Phone:** 585.567.9280

A pre-physical therapy track is available for students who are interested in pursuing graduate studies in physical therapy. A number of courses in physical education/athletic training are required for this track.

**Pre-Physical Therapy Emphasis: Biology BA** (30 hours in major, 8 in prerequisites, 20 in co-requisites)

Following eight hours of general biology (prerequisite), the pre-physical therapy program consists of 30 hours in biology and physical education that must include the following:

BIOL 217,218	Human Anatomy and Physiology I & II ..... 8
BIOL 251	Genetics ..... 4
BIOL 482	Senior Capstone: Seminar ..... 2
PHED 330	Physiology of Exercise..... 4
PHED 341	Kinesiology ..... 4
BIOL XXX	Electives ..... 8

Plus an additional 20 hours of co-requisites:

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CHEM 151, 152	General Chemistry.....	8
PHYS 151, 152	General Physics.....	8
MATH 180	Calculus and Its Origins <b>or</b>	
MATH 181	Calculus I.....	4

**Minor:** (14.5-16 hours) This pre-physical therapy/athletic training minor must be taken with the pre-physical therapy program.

#### Required classes

PHED 246	Care, Prevention & Management of Athletic Injuries .....	2
PHED 308	First Aid and Safety (2) <i>or</i> PHED 108 First Aid/CPR/AED (.5)	
PHED 247	Recognition and Evaluation of Athletic Injuries.....	4
PHED 347	Therapeutic Modalities.....	2
PHED 348	Therapeutic Exercise Mgmt. of Injuries.....	2
PHED 281	Pre-PT Field Experience I.....	2
PHED 381	Pre-PT Field Experience II .....	2
	Total: .....	14.5-16

### COURSE DESCRIPTIONS

#### PHED 281 **Pre-Physical Therapy Field Experience I** (2, F)

Mastery of competencies in injury prevention, recognition, and assessment; taping, and bracing techniques; understanding of the lower extremity; and medical documentation. *Requires 25 hours of observation in each of three settings: orthopedics, pediatrics, and geriatrics, with an additional 25 hours assisting with rehabilitation in the Houghton College training room. (Hours logged prior to taking this class may count with instructor's pre-approval.) Pre-PT majors only. Pre-/Co-Requisite: PHED 247.*

#### PHED 381 **Pre-Physical Therapy Field Experience II** (2, S)

Mastery of competencies in injury prevention, recognition, and assessment; taping, and bracing techniques; understanding of the back, and upper extremity; and developing rehabilitation programs. *Requires 25 hours of observation in each of three settings: orthopedics, cardiac, and neural rehabilitation with an additional 25 hours assisting with rehabilitation in the Houghton College training room. (Hours logged prior to taking this class may count with instructor's pre-approval.) Pre-PT majors only. Pre-/Co-Requisite: PHED 348.*

(For other descriptions, see the appropriate section: biology, chemistry, math, physics, physical education)

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## Pre-seminary

(Consult the chair of the Department of Theology, Kristina LaCelle-Peterson)

For those who expect to attend seminary after college, The Association of Theological Schools offers the following guidelines:

- Students should develop to a satisfactory degree their ability to think independently, to communicate effectively, and to do research.
- Students should possess a general knowledge of past and present culture through study in the humanities and the natural and social sciences.
- The biblical languages are useful tools to acquire in the pre-seminary period. Latin may be helpful, especially in some traditions. Modern languages such as German, French, and Spanish are also valuable.
- The study of religion is appropriate within a liberal arts education. Students should not, however, anticipate to any considerable extent at the undergraduate level, work that will form part of their seminary program. Such anticipation may narrow the base on which later theological reflection will rest and may also create problems in planning an integrated program in the theological school.

**Psychology** (major and minor)  
**Department of Psychology and Sociology:** Paul D. Young, chair and Associate Dean  
**Faculty:** Michael D. Lastoria, Richard D. Stegen, Cynthia S. Symons, John F. Van Wicklin, Paul D. Young  
**Web site:** [http://www.houghton.edu/academics/programs/psychology\\_sociology](http://www.houghton.edu/academics/programs/psychology_sociology)  
**Phone:** 585.567.9440

**Major:** 42 hours in the major.

**General Information**

Psychologists study normal and abnormal behavior, structured and erratic thinking, stable and troubled emotion. We have a broad task. Consequently, students of psychology read widely, investigate problems scientifically, and think carefully and deeply. They also share the knowledge they gain with others through writing, public presentation, and professional service. At Houghton, they wrestle with the ways that the Christian faith frames and informs our studies and our understanding.

Since psychology students typically have broad interests and a variety of goals, the major prepares students to pursue a career in human services immediately after graduating or to go on to graduate training in psychological research and college teaching, clinical or counseling psychology, school psychology, marriage and family therapy, or in related fields such as social work and human resource management.

Even without graduate training in psychology, knowledge of psychological functioning of individuals and groups is a valuable asset in professions such as medicine, law, business, education, therapeutic recreation, and ministry.

**Major Information**

The major consists of Introduction to Psychology (4); a 14-credit core common to all tracks; 24 credits of track-specific courses and electives; and for five tracks, 12 or 18 credits in cognate courses in other areas, analogous to a minor or a concentration. The psychology coursework totals 42 hours, including introduction to psychology which meets the IS-Community requirement in psychology.

Statistics (PSY 309) and Experimental Methods (PSY 310) should be taken in fairly close sequence during the sophomore and junior years. The Statistics class also meets the Quantitative Literacy competency requirement in mathematics for integrative studies. Students desiring to participate in the optional senior semester internship in Buffalo should plan to work closely with their advisor to complete the appropriate series of courses prior to placement.

**Core Requirements for all tracks**

PSY 111	Introduction to Psychology .....	4
PSY 309	Statistics.....	4
PSY 310	Experimental Methods .....	4
PSY 354	Brain and Behavior .....	4
PSY 480	Senior Capstone Seminar .....	2

**Psychology Major – General Psychology Track: Core plus 24 hours**

One developmental course from;		
PSY 213	Developmental Psychology .....	4
PSY 217	Adolescence and Emerging Adulthood .....	4
PSY 230	Lifespan Development of the Family .....	4
One social course from:		
PSY 218	Social Psychology .....	4
PSY 337	Social Cognition .....	4
One clinical course from:		

PSY 301	Psychology of Personality .....	4
PSY 305	Abnormal Personality .....	4
PSY 314	Childhood Psychopathology .....	2
One integrative issues course from:		
PSY 401	History and Systems of Psychology .....	4
PSY 306	Psychology of Religion .....	4
One neuroscience course from:		
PSY 335	Drugs and Behavior .....	4
PSY 336	Cognitive Psychology .....	4
PSY 451	Learning and the Brain .....	2
Psychology Electives	.....	4-8
	Total psychology credits .....	42

**Psychology Major - Applied/Pre-Therapy Track:** Core plus 24 hours plus 12 or 18 in a cognate area.

Applied/Pre-Therapy track requirements:

PSY 213	Developmental Psychology <b>or</b>	
PSY 217	Adolescence & Emerging Adulthood .....	4
PSY 305	Abnormal Psychology .....	4
PSY 314	Childhood Psychopathology .....	2
PSY 325	Human Sexuality <b>or</b>	
PSY 335	Drugs and Behavior .....	4
PSY 402	Counseling and Psychotherapy .....	4
PSY 410 or 415	Practicum <b>or</b> Internship .....	2-6
	Psychology electives to total 42 credits in psychology .....	0-4
	Cognate: 12 hours in Education, Equestrian Studies, Family Studies, Intercultural Studies, Music, Sociology, or Therapeutic Recreation; or 18 hours in Art.	

***For details of Pre-Art Therapy, see the Pre-Art Therapy section of the catalog.***

**Psychology Major – Cognitive/Social Psychology Track:** Core plus 24 hours plus 12 hours in a cognate area.

Cognitive/Social track requirements:

PSY 218	Social Psychology .....	4
PSY 213	Developmental Psychology <b>or</b>	
PSY 301	Psychology of Personality .....	4
PSY 336	Cognitive Psychology .....	4
PSY 337	Social Cognition .....	4
PSY 451	Learning and the Brain .....	2
PSY 393	Collaborative Research .....	0-4
	Psychology electives to total 42 credits in psychology .....	2-6

Cognate: 12 hours in communication, education, philosophy, or sociology.

**Psychology Major – Developmental Psychology Track:** Core plus 24 hours plus 12 hours in a cognate area.

Developmental track requirements:

PSY 213	Developmental Psychology .....	4
PSY 217	Adolescence and Emerging Adulthood .....	4
PSY 230	Lifespan Development of the Family .....	4
PSY 314	Childhood Psychopathology .....	2
	Advanced Developmental Psychology (course, research or practicum).....	0-4
	Psychology electives to total 42 credits in psychology (must include a neuroscience course) .....	6-10

Cognate: 12 hours in Education, Family Studies, Recreation, Health or related field.

**Psychology Major – Psychobiology Track:** Core plus 24 hours plus 12 hours in a cognate area.

Psychobiology track requirements:

PSY 325	Human Sexuality .....	4
PSY 336	Cognitive Psychology .....	4
PSY 335	Drugs and Behavior .....	4
PSY 451	Learning and the Brain .....	2
PSY 393	Collaborative Research .....	0-4

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Psychology electives to total 42 credits in psychology .....	6-10
Cognate: 12 hours in biology or biochemistry.	

**Psychology Major - Psycholinguistics Track:** Core plus 24 hours plus 12 hours in a cognate area.

Psycholinguistics track requirements:

PSY 213	Developmental Psychology .....	4
PSY 336	Cognitive Psychology .....	4
PSY 337	Social Cognition .....	4
PSY 306	Psychology of Religion .....	4
Psychology electives to total 42 credits in psychology .....		8

Cognate: 12 hours in linguistics.

**Psychology Major – Honors Research Track:** Core plus 24 hours.

Honors Research track requirements:

PSY 336	Cognitive Psychology <i>or</i>	
PSY 337	Social Cognition .....	4
PSY 451	Learning and the Brain .....	2
PSY 393	Collaborative Research (2 semesters) .....	2
PSY 496	Honors in Psychology .....	4
One honors-enhanced course in each of three areas chosen from		
Developmental, Integration, Social, and Clinical.....		12

**Minor:** A minor in psychology consists of at least four courses in psychology above PSY 111, totaling 12-16 hours. Statistics (PSY 309) is excluded if courses chosen for the minor total less than 15 hours.

## COURSE DESCRIPTIONS

**PSY 111 Introduction to Psychology** (4, F&S)

Scientific study of thinking, emotion, and behavior. Surveys theories, issues, and concepts of psychology. May include research participation requirements. Community: Psychology.

**PSY 213 Developmental Psychology** (4, F&S)

Concepts and principles, theories, and research methods associated with the development of the individual from conception through old age.

**PSY 217 Adolescence and Emerging Adulthood** (4, F)

Concepts and principles, theories, and research methods associated with the development of the individual from early adolescence to young adulthood.

**PSY 218 Social Psychology** (4, S)

Social behavior from a sociological and psychological perspective, examining the interaction of behaviors of individuals in groups. Topics: prejudice, group processes, leadership, conformity, attitudes, change. Community: Psychology.

**PSY 230 Lifespan Development of the Family** (4, S)

Considers developmental theory and research related to family composition and systems 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. Community: Psychology.

**PSY 301 Psychology of Personality** (4, S)

Description, development, dynamics, determinants and assessment of the normal personality. Emphasis on contemporary theories and research.

**PSY 305 Abnormal Psychology** (4, F)

Etiology, dynamics, assessment, and treatment of psychopathology. Prerequisite: six hours in psychology.

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**PSY 306 Psychology of Religion** (4, F)  
Study of religious and spiritual experience and behavior from a psychological perspective, including the integration of psychology and Christianity. Topics covered include conversion, faith, mysticism, spiritual development. Examines the origin and nature of religion according to thinkers such as Kierkegaard, Freud, Jung, Maslow, Tillich, and Frankl.

**PSY 309 Statistics** (4, F&S)  
Descriptive and inferential statistics: Measures of central tendency and variability, discrete and continuous probability functions, sampling, estimation, hypothesis testing, correlation, regression, Chi Squared, ANOVA. (Also listed in BADM, ECON, SOC) Quantitative Literacy Competency: Math.

**PSY 310 Experimental Methods** (4, F&S)  
Experimental and other quantitative methods used in the study of thinking and behavior. Applied statistical analysis, laboratory experiences, and research writing. Prerequisite: PSY 309.

**PSY 314 Child Psychopathology** (2, S12)  
The etiology, dynamics, and treatment of psychopathology in children. The main objective is to think developmentally about psychopathology as it unfolds from childhood through adolescence.

**PSY 321 Adult Development and Aging** (4, S12)  
The study of social, cognitive and physical changes from early adulthood through later life with special attention to concepts, theories, and research related to processes of aging and dying.

**PSY 324 Life in the City** (3)  
(See Off Campus Programs – Houghton College City Semester for description.)

**PSY 325 Human Sexuality** (4, S)  
Examines sexuality as a component of our personalities, an aspect of our behavior, and an element in our environment. Considers how sexuality develops and interacts with other aspects of our thought and behavior.

**PSY 330 Conflict Management** (4, S12)  
An introduction to conflict management that balances coverage of major theories with practice in communication skills and conflict intervention techniques (e.g. assertiveness training, mediation, negotiation). Focus on experiential learning, with heavy emphasis on written analysis that includes analytical journaling and analysis of scientific journal articles.

**PSY 335 Drugs and Behavior** (4, S)  
Principles of action of psychoactive drugs; their effects on body, mind, and society; patterns and causes of their use and abuse; prevention and treatment.

**PSY 336 Cognitive Psychology** (4, F10)  
Critical examination of the main psychological theories and research of perception, thinking, solving problems, memory, and language with applications in learning, research, and therapy.

**PSY 337 Social Cognition** (4, S11)  
Social cognition is a sub-discipline of social psychology that focuses on how people think about the world and make sense of complex social environments. Covers social behavior from a cognitive perspective with stereotyping, social perception, affect, and the self.

**PSY 354 Brain and Behavior** (4, F)  
Relationship of brain, nervous system, and physiology with behavior. Brain basis of sensation, emotion, aggression, learning, communication, and mental disorders.

**PSY 393, 394 Collaborative Research in Psychology/  
Summer Collaborative Research in Psychology** (0-4 F, S, summer)  
Students conduct a research project in collaboration with other students and a faculty member. Topics in social psychology, cognition, learning, biopsychology, and personality are available. Students will review the literature, design and conduct empirical research, analyze and explain the results, write a report in journal

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submission format, and present at an appropriate conference. Students may take this course up to four semesters. Requires permission of instructor.

**PSY 401 History and Systems of Psychology** (2, S11)  
Antecedents and evolution of psychological systems and concepts, including the life and works of historically eminent psychologists. Prerequisite: 16 hours in psychology.

**PSY 402 Counseling and Psychotherapy** (4, S)  
Introduction to major systems of psychological intervention and their rationale. Emphasis on theory rather than practice.

**PSY 410 Practicum in Psychology** (1, 2, 3, F&S)  
Introduction to professional work in psychology through field experiences in such settings as school psychology, personnel, continuing treatment programs, alcohol and drug abuse treatment centers, and developmental disability centers. Prerequisite: senior status and permission of the department. Contact: Professor Richard Stegen.

**PSY 415 Internship in Psychology** (4 or 6, F&S)  
A supervised experience in a psychological setting integrating theory with professional practice. By application only through the department. Contact: Professor Richard Stegen.

**PSY 426 Family Systems Theory** (4, F)  
Builds on lower level courses: Lifespan Development of the Family, and Introduction to Marriage and Family Studies. Pedagogy is seminar style and discussion-oriented.

**PSY 451 Learning and the Brain** (2, S11)  
Analyzes theories and research of learning, including the interaction of learning and the brain. Applications in teaching, research, and therapy.

**PSY 480 Senior Capstone Seminar** (2, 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 211, 311, 411 Special Topics in Psychology** (2, or 4, OD)  
According to interest and demand, courses will be offered in Cross-cultural Psychology, Environmental Psychology, Industrial/Organizational Psychology, and other topics.

**PSY 191, -2; 291, -2; 391, -2; 491, -2 Independent Study** (1, 2, 3 or 4, OD)

**PSY 496 Honors in Psychology** (4, S)

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## Recreation (major and minor)

**Department of Environmental Recreation and Equestrian Studies:** Thomas R. Kettelkamp, chair. Marcus W. Dean, Associate Dean

**Faculty:** Andrea Boon, Sharon Hibbard, Thomas R. Kettelkamp, Chris Nafziger, Jaynie Nafziger, Robert Smalley, Jo-Anne Young

**Web site:** [www.houghton.edu/academics/programs/recreation](http://www.houghton.edu/academics/programs/recreation)

**Phone:** 585.567.9645

**Major:** This major in recreation provides two option areas: Outdoor Education/Camp Administration and Equestrian Studies.



**Recreation: Outdoor Education/Camp Administration Option (32-34 hours plus 13 hours in co-requisites)**

<b>Co-requisites</b>	
BIOL 215	Local Flora and Vegetation ..... 4
REC 102B	Backpacking ..... 1
BADM 212	Principles of Management..... 4
PSY 213	Developmental Psychology ..... 4
	Total: .....13
<b>Core Requirements</b>	
REC 222	Leisure,Work and Society ..... 4
REC 300	Program Planning and Evaluation ..... 4
REC 406	Capstone Recreation Internship.....4-6
	Total: ..... 12-14
<b>Theory Requirements</b>	
REC 315	Wilderness First Responder..... 4
REC 227	Outdoor Leadership Training..... 4
REC 401	Natural Resource Management..... 4
REC 301	Methods & Mat'ls for Camps & Outdoor Educ. .... 4
REC 240	Administration of Organized Camps ..... 4
	Total: .....20

**Recreation: Equestrian Option (33-35 hours plus 11 hours in co-requisites)**

The Recreation: Equestrian studies option gives a solid foundation for students preparing to enter the equestrian venue as professionals in teaching, training, facility management, and related careers. Through academically rigorous courses and expert instruction on top-class school master horses, students are equipped with a broad base of knowledge in classical horsemanship. Classes encompass theory and philosophy, riding, the teaching of riding, and care of the horse. In-depth studies, opportunities to study with world class clinicians, and riding in competitions cultivate Christ-like character in students, enabling them to become effective scholar-servants.

<b>Co-requisites</b>	
ACCT 211	Financial Accounting ..... 3
BADM 212	Principles of Management ..... 4
EDUC 219	Educational Psychology..... 4
	Total: ..... 11
<b>Core Requirements</b>	
REC 222	Leisure, Work and Society ..... 4
REC 300	Program Planning and Evaluation ..... 4
REC 406	Capstone Recreation Internship.....4-6
<i>Certification in CPR and First Aid or WFR or WFA</i>	
	Total: ..... 12-14
<b>Theory Requirements</b>	
HRSM 223	Foundations of Equestrian Studies ..... 4
HRSM 224	CHA Riding Instructor Certification ..... 3
HRSM 276	Dressage..... 2
HRSM 325	Jumping I ..... 2
HRSM 323	Eventing..... 2
HRSM 324	Principles of Training ..... 2
HRSM 328	Horse Show Judging ..... 2
HRSM xxx	Horsemanship electives (from following) ..... 4
	HRSM 326 Jumping II ..... 2
	HRSM 327 Mini Prix Equitation ..... 2
	HRSM 334 Competition Dressage ..... 2
	HRSM 421 Musical Freestyle Dressage ..... 2
	HRSM 230 Basic Western Riding ..... 2
	HRSM 337 Adventure Trails ..... 2
	HRSM 240 Teaching Riding in Bolivia ..... 2
	HRSM 235 CHA-IRD ..... 1
	HRSM xxx Independent Study ..... 2
	HRSM xxx Special Topics ..... 2
	Total.....21

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**Minor: 14 hours**

Courses numbered 200 or above, including REC 222. The remaining 10 hours may be selected from any REC courses, with at least two hours but not more than five in activity labs.

For a minor in Equestrian Studies, see Equestrian Studies section.

### COURSE DESCRIPTIONS

**REC 103 Initiatives** (Activity Lab) (1, F)  
Problem-solving activities in which group dynamics and team building will be emphasized through group discussions and participation in facilitated ropes course, initiative, values clarification and “new games” activities. Health and Wellness: Point 4.

**REC 104 Backpacking** (Activity Lab) (1, S)  
Develop skills and knowledge in backpacking and provide the opportunity for students to enjoy the outdoors. Two weekend, overnight backpacking trips will take place throughout the semester. Health and Wellness: Point 2 or Point 4.

**REC 109 Highlander Adventure Program** (Activity Lab) (2, Special)  
Two to three days on the initiatives course and a seven-day trip into the wilderness. Develop skills in canoeing, rock climbing, rappelling, backpacking. Open only to incoming first-year and transfer students. Offered 10 days before fall semester validation.  
Health and Wellness: Point 3 and Point 4.

**REC 211 Eco-tour in Honduras** (4, M)  
Students will have a third-world experience including a service-learning project. Visits are made to national parks and Mayan Indian ruins. Activities include hiking, snorkeling, and attending cross-cultural classes. Health and Wellness: Point 2 or Point 4.

**REC 212 Eco-tourism in Africa** (3, Summer)  
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. Health and Wellness: Point 2 or Point 4.

**REC 218 Winter Ski Outing** (Activity Lab) (1, OD)  
Downhill and recreational skiing skills developed at a major resort area. Techniques equal to one's ability will be taught. Offered during break, before spring semester.

**REC 222 Leisure, Work and Society** (4, S)  
This course will investigate a comprehensive overview of the role of leisure and work within contemporary Western society. Students will begin to develop a personal philosophy of work and leisure as it relates to both their personal life and relationship to society. A strong emphasis will be to integrate the various theories and philosophies of work and leisure with the Christian faith. To systematically introduce the student to both public and private agencies which deliver leisure services and opportunities. To investigate how these agencies plan and manage their programs and resources from a client oriented perspective. To provide a broad scope of leisure services and integrate their role relative to the overall curriculum in the recreation and leisure studies major.

**REC 227 Outdoor Leadership Training** (Activity Lab) (4, 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. Health and Wellness: Point 4.

**REC 228 Trip Experience** (1 to 3, M)  
As arranged.

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- INTS/REC 235 Interpreting the Environment: Trail Development** (2, 3, or 4, F&S)  
Principles, processes, and techniques used to interpret the environment and develop interpretive materials, centers, and trails. Through service-learning, students will develop interpretive, recreational, meditative, exercise, or other trails to complement their major program or integrative studies. One hour lecture/3, 4.5, or 6 hours applied (depending on credit hours chosen-3 applied hours for 2 credits, 4.5 for 3 credits, and 6 for 4 credits). Applied hours include research and preparation of interpretive presentations as well as trail development, as appropriate.
- REC 240 Administration of Organized Camps** (4, F10)  
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, F10)  
Conditions which characterize and produce atypical individuals; diagnosis of strengths and weaknesses of the individual; prescription of procedures for appropriate activities. Prerequisite recommended: BIOL 103, 217.
- REC 300 Program Planning and Evaluation** (4, F)  
Preparation for leadership in recreation programming: leadership styles and theory; principles and methods of program development; using fundamental leisure philosophy and theory to assess needs, plan, develop, implement, and evaluate recreational programs.
- REC 301 Methods & Materials for Camps & Outdoor Education** (Activity Lab) (4, F11, 13)  
Outdoor education. Field experience in lesson planning; development of organized camp programs, activities, structured programs (cabin, campfire, work, etc.).
- REC 303 Methods & Materials in Therapeutic Recreation** (3, S11)  
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 222.
- REC 305 Facilitation Techniques in Therapeutic Recreation** (3, S12)  
Introduce students to a variety of intervention/facilitation techniques used in the field of therapeutic recreation. To prepare students in the application of these techniques by equipping them to plan, implement, and evaluate these techniques in the context of their inherent therapeutic value, and their effectiveness in individual therapeutic programming.
- REC 315 Wilderness First Responder** (4, OD)  
This semester-long course includes 80 hours of backcountry medicine to enable students to handle all types of wilderness emergencies. Students will learn patient assessment, treatment, and evacuation, as well as trip leadership and problem solving. Emphasis is placed on hands-on simulations of real life emergencies to supplement classroom lecture. Students who complete this course receive a three year WFR certification through SOLO.
- REC 401 Natural Resource Management** (4, S)  
Investigating Christian environmental ethics; identifying and protecting biologically sensitive areas; rehabilitating damaged areas and resources; sound ecological practices; controlling user behavior; site problems; resource management plans.
- REC 406 Recreation Internship** (4 to 6, OD)  
Professional field experience in the area of emphasis; the student will relate theory to practice in a cooperative effort between agency, student, and advisor. Permission of instructor required.
- REC 409 Senior Capstone: Issues in Therapeutic Recreation** (3, F11)  
Leisure behavior as it affects therapeutic recreation services. Issues: T.R. certification, accessibility, thera-

peutic models for special populations; special attention to geriatric and psychiatric persons. Permission of instructor required.

REC 191, 291, 391, 491 **Independent Study** (1, 2, 3 or 4)

REC 496 **Honors in Recreation and Leisure Studies** (4)

*Horsemanship (HRSM) Course descriptions can be found in the equestrian studies section.*

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Religion (major; major with ministerial concentration; minor)

Department of Theology: Kristina LaCelle-Peterson, chair. W. Christopher Stewart, Associate Dean

Faculty: John N. Brittain, Jonathan P. Case, Richard K. Eckley, Kristina LaCelle-Peterson, Paul W. Shea, J. Michael Walters

Web site: [www.houghton.edu/academics/programs/religion-philosophy](http://www.houghton.edu/academics/programs/religion-philosophy)

Phone: 585.567.9460

Major: BA (42-44 hours)

General Information

The **comprehensive major in religion** is provided for those who want a liberal arts degree with a maximum of Biblical and theological studies. This curriculum is generally accepted for entrance into seminary or other graduate institutions 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 44 hours in a specified core of religion courses and 16 hours in the ministerial concentration.

Specific requirements are: (42- 44 hours)		
BIBL 355, 356	Biblical Theology I, II .....	2, 2
THEL 313	Systematic Theology (required for Wesleyan ordination).....	4
THEL 350	Reason and Religious Belief (or PHIL course).....	2
THEL 220	History of Christianity (required for Wesleyan ordination) .....	4
REL 482	Senior Capstone: Seminar in Religion.....	2
And two of the following:		
REL 221	World Faiths I: Eastern Traditions .....	2
REL 231	World Faiths II: Western Traditions .....	2
REL 222	New Religious Movements I .....	2
REL 232	New Religious Movements II .....	2
4 hours of historical theology from the following courses:		
THEL 325	American Church History .....	4
THEL 368	The Reformation .....	4
MISS 221	History of the Global Christian Movement .....	4
12 hours of Bible:		
BIBL 221	Biblical Interpretation (required for Wesleyan ordination) .....	4
Bible electives .....		8
At least 4 hours from the following:		
THEL 315	Wesleyan Tradition (required for Wesleyan ordination).....	4

MISS 222	The Contemporary Church in Missions (required for Wesleyan ordination).....	4
URMN 212	Urban Ministry .....	4
THEL XXX	Theology course .....	4
At least one course from the following:		
THEL 337	Theological Foundations of the Family .....	4
PSY 306	Psychology of Religion .....	4
SOC 338	Sociology of Religion .....	2

Students electing the comprehensive major in religion must satisfy all normal integrative studies requirements. Students are strongly encouraged to satisfy I.S. language requirements by taking one of the Biblical languages (Greek or Hebrew). A curriculum plan for this major is available through the Department of Religion and Philosophy.

**Major with Ministerial Concentration (BA):** This combines the above major in religion (42-44 hours) with a 21-25 hour ministerial concentration. Students who choose the ministerial curriculum must satisfy all normal integrative studies requirements. Students are strongly encouraged to satisfy I.S. language requirements by taking one of the Biblical languages (Greek or Hebrew). A curriculum plan for this program is available through the Department of Religion and Philosophy. The concentration curriculum is as follows:

CRFM 231	Foundations of Educational Ministry .....	2
MIN 316	Worship in the Church.....	4
MIN 317	Leadership in the Church.....	4
MIN 324	Principles of Expository Preaching .....	4
URMN 250	Evang & Social Action in the Urban Context.....	3
MIN 410	Ministerial Field Education .....	4-8

#### **Religion Minor: (12-14 hours)**

##### **Required courses:**

PHIL 350	Reason and Religious Belief .....	2
REL 221	World Faiths I: Eastern Traditions .....	2
REL 231	World Faiths II: Western Traditions .....	2

##### **Select additional courses from the following: (6-8 hours)**

THEL 215	Christian Apologetics .....	4
THEL 313	Systematic Theology .....	4
BIBL 355	Biblical Theology I .....	2
BIBL 356	Biblical Theology II .....	2
THEL 220	History of Christianity .....	4

## **COURSE DESCRIPTIONS**

### **GREK 101, 102 Beginning Greek Level 1, Level 2** (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 102 satisfies Foreign Language Competency.

### **HEBR 101, 102 Beginning Hebrew Level 1, Level 2** (4/4, F/S)

Elements of Biblical Hebrew. Reading from Old Testament. HEBR 102 satisfies Foreign Language Competency.

### **MIN 210 Introduction to Christian Ministries** (2, F11 & alternate years)

Investigation of the Biblical, historical, and practical foundations for ministry as essential components of Christian vocation. Lay and professional aspects of ministry are explored in the context of the vocational call. A broad overview of ministry-related fields will be presented, including parish, educational, cross-cultural, and para-church ministries. This course is recommended for anyone who is interested in any form of full-time ministry.

### **MIN/THEL 316 Worship in the Church** (4, F10 & alternate years)

An introduction to liturgical theology including explorations into the Biblical and theological foundations for

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worship and the sacramental life of the church. Special emphasis is given to the task of contextualization in planning worship services, and examining the pastoral role in the church's liturgical life and witness.

**MIN 317 Leadership in the Church** (4, S11 & 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: Presentational Speaking or permission.

**MIN 325 Life in the City** (3, F)  
(See Off Campus Programs – Houghton College City Semester for description.)

**MIN 410 Ministerial Field Education** (4, 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.

**REL 221 World Faiths I: Eastern Traditions** (2, F11)  
Examines the history and major beliefs of the Indic (Hindu, Buddhist) and Sinic (Taoist, Confucian) religious traditions. Special emphasis is given to the Christian encounter with these world faiths.

**REL 222 New Religious Movements I: Eastern Branches** (2, F11)  
Examines the history and major beliefs of New Religious Movements that take their orientation from, or derive their impetus from critical confrontation with, one of the major Eastern traditions. Movements studied include Theosophy, Transcendental Meditation, Soka Gakkai, New Age.

**REL 231 World Faiths II: Western Traditions** (2, F10)  
Examines in critical perspective the history and major beliefs of the Semitic religious traditions (Judaism, Christianity, and Islam). Special emphasis is given to the Christian encounter with Judaism and Islam.

**REL 232 New Religious Movements II: Western Branches** (2, F10)  
Examines the history and major beliefs of New Religious Movements that take their orientation from, or derive their impetus from critical confrontation with, one of the major Western traditions. Movements studied include Jehovah's Witnesses, Nation of Islam, Satanism, and Wicca.

**REL 482 Senior Capstone: Seminar in Religion** (2, S)  
A senior capstone colloquium required of all students with a major in religion or educational ministries.

**URMN 212 Urban Ministry** (4, F)  
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 at West Seneca campus.

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# ROTC at Houghton [Army] (minor)

**Houghton faculty advisor:** John F. Van Wicklin

**Web site:** <http://www.houghton.edu/academics/programs/rotc.htm>

**Phone:** 585.567.9441

**Minor:** Military Leadership [minimum of 12 hours of MSL coursework and contract with U.S. Army leading to rank of 2nd Lieutenant]

Houghton College students may participate in ROTC [Reserve Officer Training Corps] through a cross-enrollment agreement with St Bonaventure University. Two hours of military science are offered each semester that combine academic coursework and practical field experiences designed to enhance self-confidence, discipline, initiative, and responsibility. 100 and 200 level courses are offered on the Houghton campus to any interested student without obligation to the Army. Up to 8 hours of Houghton graduation credit can be earned this way. 300 and 400 level courses, offered on the SBU campus, are open only to students under contract with the U.S. Army. Houghton students in this program have done well in competition for scholarships which cover full tuition and books plus a modest living allowance.

## COURSE DESCRIPTIONS

**MSL 101/101L Foundations of Officership** (Course and Lab) (2, F)

The purpose of this semester is to introduce cadets to fundamental components of service as an officer in the United States Army. These initial lessons form the building blocks of progressive lessons in values, fitness, leadership, and officership. Additionally, the semester addresses "life skills" including fitness, communications theory and practice (written and oral), and interpersonal relationships. Upon completion of this semester, the cadets should be prepared to receive more complex leadership instruction.

**MSL 102/102L Basic Leadership** (Course and Lab) (2, S)

This semester builds upon the fundamentals introduced in the previous semester by focusing on leadership theory and decision-making. "Life skills" lessons in this semester include: problem solving, critical thinking, leadership theory, followership, group interaction, goal setting, and feedback mechanisms. Upon completion of this semester, cadets should be prepared to advance to more complex leadership instruction concerning the dynamics of organizations.

**MSL 201/201L Individual Leadership Studies** (Course and Lab) (2, F)

Building upon the fundamentals introduced in the MS-1 year, this instruction delves into several aspects of communication and leadership theory. The use of practical exercise is significantly increased over previous semesters, as cadets are required to apply communications and leadership concepts. Virtually the entire semester teaches critical "life skills". The relevance of these life skills to future success in the Army is emphasized throughout the course.

**MSL 202/202L Leadership and Teamwork** (Course and Lab) (2, S)

The final semester of the Basic Course focuses principally on officership, providing an extensive examination of the unique purpose, roles, and obligations of commissioned officers. It includes a detailed look at the origin of our institutional values and their practical application in decision-making and leadership to focus on a career as a commissioned officer. Upon completion of this semester, cadets should possess a fundamental understanding of both leadership and officership, demonstrate the ability to apply this understanding in real world situations, and be excited about the aspect of shouldering the responsibility of a commissioned officer in the United States Army.

**Sociology** (major and minor)  
**Department of Psychology and Sociology:** Paul D. Young, chair and Associate Dean  
**Faculty:** Jonathan E. Arensen, Wendy R. Baxter, Karen O. Daugherty, Eli Knapp, Michael D. Lastoria, Ronald J. Oakerson, Aaron S. Routhe, Cynthia Symons  
**Web site:** [www.houghton.edu/academics/programs/psychology\\_sociology](http://www.houghton.edu/academics/programs/psychology_sociology)  
**Phone:** 585.567.9440

**Major:** (28 hours in the major)

**General Information**

Sociology provides an understanding of the social and cultural influences on human action. The major in sociology includes coursework in anthropology, environmental and development issues, and other topics related to contemporary society. It provides a critical dimension to a liberal arts education and tools for addressing social and ecological problems facing local, national, and global communities. The program offers two directions: 1) obtain a second major in Biology, Communication, Education, Intercultural Studies, Political Science, Psychology, Recreation, or another field; OR 2) deeply explore environment, development, marriage and family-related issues, or the sociology discipline. Studying sociology offers excellent preparation for students anticipating careers in community and international development, environmental and natural resource conservation, social work and health services, politics and law, business and human resource management, recreation and tourism, urban planning, and other related areas.

Principles of Sociology (SOC 101) is not required for upper level sociology or anthropology coursework.

Required courses:	
SOC 282	Sociological Theory ..... 4
SOC 309	Statistics..... 4
SOC 312	Social Science Research Methods..... 4
SOC 480	Senior Capstone: Sociology Seminar ..... 2
Elective sociology courses.....14	

**Minor:** 12 hours above SOC 101, except SOC 309 Statistics.

**COURSE DESCRIPTIONS**

**SOC 101 Principles of Sociology** (4, F&S)  
Introduction to the sociological perspective and sociology program emphasis. Explore environment, development, social work, and marriage-family topics and issues. Understand social and cultural influences on human action, relationship between our personal lifestyles and society, and how to address challenges facing communities. Community: Sociology.

**SOC 218 Social Psychology** (4, F)  
Introduction to social behavior from a sociological and psychological perspective. Individual behavior as it affects and is affected by the behavior of others. Topics: prejudice, group processes, leadership, conformity, attitude change.

**SOC 222 Social Problems** (4, OD)  
Survey of contemporary local, national, and international social and environmental conditions labeled as problems in U.S. and global society. Introduces students to sociological explanations for how observed conditions are perceived and constructed as social problems in Human societies. Community: Sociology.

**SOC 225 Foundations of Environmental Sociology** (4, S)  
Introduction to how theory and research methods are applied to: attitudes and behavior of environmental concern; pro-and anti-environmental social movements; political economy of development and environmental regulation; and risk, health, gender, and environment. Community: Sociology.



- SOC 226 Culture, Faith, and Creation** (4, F)  
Investigate how societies sociologically construct the human-environment relationship. Examine empirical research about how Christians think and act toward the environment in modern societies. Explore the connections between your faith and creation and apply them to everyday life. Community: Sociology.
- SOC 237 Introduction to Marriage and Family Studies (CDRP, see Foreign Languages)** (4, F10)  
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. Community: Sociology.
- SOC/ANTH/INCL 243 Cultural Anthropology (CDRP, see Foreign Languages)** (4, F)  
Cultural and social aspects of human behavior; comparison of cultures. Community: Anthropology.
- SOC 277 Crime and Society: Environmental Crime** (2, OD)  
Examines sociological explanations for how the ecological impacts of various kinds of human actions become categorized as 'environmental crime' in society. Introduces students to the social process for how they are labeled deviant and prohibited through law, monitored and policed by regulation and enforcement, prosecuted and deterred through the criminal justice system, and influenced by globalization and transnational corporations.
- SOC 282 Sociological Theory** (4, F11)  
Covers classical and contemporary sociological theorists and theories, including grand theories and micro-theories, and the integration of these theories, i.e., large scale social phenomena and everyday life. Both modern and postmodern theories are examined.
- SOC 285 Sociology of Development** (2, OD)  
Introduces students to the global context and dimensions of development and social change within and among human societies. Examines sociological explanations for why different nations follow different paths of industrialization and vary in their form of economic production and organization or associated political decision-making processes. Explores why some nations become wealthy while others remain poor with reference to social theories of development and the costs and benefits of different development trajectories.
- SOC/ANTH 293 East African Cultures** (3 or 4, S)  
(See course description in Off-Campus Programs — Tanzania section.)
- SOC 295/395 Special Topics in Sociology** (2 or 4, OD)  
Topics offered according to interest and demand.
- SOC/ANTH 296 Special Topics in Anthropology** (2 or 4, OD)  
Topics offered according to interest and demand.
- SOC 297 Special Topics in Family Studies** (2 or 4, OD)  
Topics offered according to interest and demand.
- SOC 309 Statistics** (4, F&S)  
Descriptive and inferential statistics: Measures of central tendency and variability, discrete and continuous probability functions, sampling, estimation, hypothesis testing, correlation, regression, Chi Squared, ANOVA. (Also listed in BADM, ECON, PSY) Quantitative Literacy Competency: Math.
- SOC 312 Social Science Research Methods** (4, S11)  
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/ANTH 315 Human Ecology** (4, F)  
Human communities and human populations will be viewed as part of the ecosystem in which they reside. Integrates knowledge from several disciplines and acts as a hybrid of the social and natural sciences.
- SOC 322 Social Stratification** (2, OD)  
Major theories and evidence relating to the origin, nature, and social consequences of stratification systems of social inequality in contemporary United States.

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**SOC 325 Life in the City** (3)  
(See Off Campus Programs – Houghton College City Semester for description.)

**SOC 330 Culture and Family (CDRP, see Foreign Languages)** (4, OD)  
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** (2, OD)  
Introduces students to the sociological perspective on religion and religious behavior in modern and developing societies. Examines the relationship of religion to other major social institutions (family, economy), its role in social conflicts (genocide, terrorism), and the influence of religious sub-cultures (US Evangelicals) on contemporary issues (environmentalism, politics).

**SOC/ANTH/INCL 350 Culture Change and Its Effects on Traditional Societies** (4, F)  
Globalization is spreading rapidly around the world, and this is causing significant culture change to traditional societies. With a strong focus on history and case studies, this course will make students aware of what is happening and give them the theoretical knowledge to understand, empathize with, and assist people who are wrestling with change. Pre- or Co-requisite: Cultural Anthropology.

**SOC 351 The Individual and Society** (2, OD)  
Examines the major dilemmas that profoundly affect life in post-industrial Western society: dilemmas between individual freedom and social equality and between rational organization and community. (Recommended for students planning to attend graduate school.)

**SOC 361 Race, Gender and Environment** (4, OD)  
Introduces race and gender as social characteristics affecting individuals' experience of the environmental benefits and costs of development and industrialization in developed and developing countries. Examines the social conflict between dominant (majority) and subordinate (minority) racial/ethnic groups in defining 'environmental racism' and the evidence for it. Analyzes how gender structures the life experience of females in accessing natural resources and participating in management decision-making processes. Includes multicultural perspectives on race and gender relations with respect to local, national, and global examples of the environmental justice movement.

**SOC 362 Gender Relations** (2, OD)  
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, 4 F&S)  
Supervised experience in a family services setting integrating theory with professional practice. Requires junior or senior standing, the completion of at least nine hours in the Family Studies minor, and permission of the department. Contact: Professor Richard Stegen.

**SOC 394 Internship in Family Studies** (4 or 6, OD)  
(Sometimes in cooperation with the Office for Urban Connections at the Houghton College @ Buffalo program)  
An optional supervised experience in a family studies setting integrating theory with professional practice. By application only through the department. Contact: Professor Richard Stegen.

**SOC 410 Practicum in Sociology** (1, 2, 3, F&S)  
Supervised experience in a sociological setting integrating theory with professional practice. Requires permission of the department. Contact: Professor Richard Stegen.

**SOC 415 Internship in Sociology** (4 or 6, F&S)  
An optional supervised experience in a sociological setting integrating theory with professional practice. By application only through department. (Sometimes in cooperation with the Office for Urban Connections at the Houghton College @ Buffalo program) Contact: Professor Richard Stegen.

**SOC 480 Senior Capstone: Sociology Seminar** (2, S)  
Capstone course of the major which will include preparing a resume for graduate school or a career, conducting an academic seminar over a primary reading in Sociology, preparing for & taking the Sociology Major

Field Test, teaching a sociology class, & completing a major paper or project that reflects your personal, spiritual, and intellectual development.

SOC 191, -2; 291, -2; 391, -2; 491, -2 **Independent Study** (1, 2, 3 or 4, F or S)

SOC 496 **Honors in Sociology** (4, S)

## Spanish (see Foreign Languages)

Sports Ministry (minor)

Department of Physical and Health Education and Department of Theology

Faculty: Jonathan P. Case, Thomas R. Kettelkamp, David B. Lewis, Paul W. Shea, Matthew T. Webb

Web site: [www.houghton.edu/academics/programs/physical\\_education/sports\\_min2.htm](http://www.houghton.edu/academics/programs/physical_education/sports_min2.htm)

Phone: 585.567.9645

Sports ministry is a culturally relevant relational tool that helps connect the Christian faith to the sport-minded. The minor is particularly helpful for students interested in academic and vocational pursuits within local church ministries, missions, education, coaching, camping, recreation, equestrian studies, church planting and intercultural studies.

**Sports Ministry Minor:** (minimum 16 hours, interdisciplinary)

Required (8 hours)	
CRFM 325	Bible Study and Teaching Methods ..... 2
PHED/CRFM 227	Sports Ministry: The Integration of Faith and Sport ..... 4
PHED/CRFM 275	Methods of Administration of Sports Ministry ..... 2
Select one of the following (4 hours):	
CRFM 341/342	Theological Explorations in Youth Cultures and Ministry I, II ..... 2+2
THEL 313	Systematic Theology ..... 4
*Select at least two from the following (4-8 hours):	
INCL XXX	Intercultural course recommended by dept..... 1-4
MISS 222	The Contemporary Church in Missions ..... 4
PHED 305	Sports Ministry Field Practicum** ..... 2
PHED 306	Principles of Coaching & Sport Management..... 4
REC 227	Outdoor Leadership Training..... 4
REC 240	Administration of Organized Camps ..... 4
<i>May also use either CRFM 341/342 or THEL 313 - whichever was not used in category two ..... 4</i>	

\*For other options, see the Director of the program.

\*\* with approval the practicum can be fulfilled through one of the following provided the course has a sufficient sports ministry component:

CRFM 442	Internship in Christian Formation ..... 4
MISS 311 C	ross Cultural Field Experience .....(3-4)
INCL/INTR 311	Intercultural Experience .....(0-4)

COURSE DESCRIPTIONS

See Christian formation, physical education, recreation, and theology sections.

**TESOL** (Teaching English to Speakers of Other Languages) (minor)  
**Department of Intercultural Studies:** Marcus W. Dean, chair and Associate Dean  
**Faculty:** Jan K. Buckwalter, Patrick L. Buckwalter, Marcus W. Dean, Andrew F. Gallman  
Web site: [www.houghton.edu/academics/programs/intercultural](http://www.houghton.edu/academics/programs/intercultural)  
Phone: 585.567.9634

**TESOL major:** See Education.

**Minor:** (20 hours)

Without a doubt, the role of the English language has been transformed in recent years. Its use in international politics and business, in science and technology, and in the media and higher education has earned it special status in over 70 countries worldwide. Nearly a quarter of the world's population speaks this language, and it is the most widely taught foreign language in the world. Consequently, there is a great demand for competent English teachers in almost every nation in the world, including the United States.

A minor in TESOL trains students to serve the international population around the world and within the United States, offering opportunities for cross-cultural service, even in countries that are closed to receiving missionaries. This is a practical key for opening the doors to our 21st century world.

LING 220	Introduction to Linguistics .....	4
LING/EDUC 351	Linguistics for TESOL .....	4
LING 350	First and Second Language Acquisition .....	4
LING 440	Theory and Practice of TESOL Methodology .....	4

Choose 1 of the following two:

COMM/ANTH 225	Intercultural Communication .....	4
INCL/ANTH 310	Intercultural Competencies .....	4

**COURSE DESCRIPTIONS**

**ANTH/COMM 225 Intercultural Communication** (4, OD)  
Explores theory and practice of communicating interculturally. Recommended for those with an interest in international vocations, or working with ethnic or cultural groups within the United States.

**ANTH/INCL 310 Intercultural Competencies** (4, F & S)  
Explores the knowledge, attitudes, and skills for transitioning into, adapting to, working in, and functioning successfully in an intercultural context. Key topics include cultural values, intercultural communication, researching culture, being a change agent, dealing with conflict, and working with individuals from another culture. Prerequisite: Introduction to Global Issues and Cultural Anthropology, or permission of instructor.

**LING 220 Introduction to Linguistics** (4, F)  
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 350 First and Second Language Acquisition** (4, F)  
Explores linguistics, psychology, and social contexts of language acquisition, along with instructional and policy implications for schooling in multilingual settings. In addition to course readings and class discussions, students examine the claims of language acquisition theory through guided interactions with language learners and by conducting small-scale experiments.

**LING/EDUC 351 Linguistics for TESOL** (4, S)  
This course examines some of the unique challenges of English structure (phonological, morphological, syntactical, semantics and pragmatics) and transfer problems that non-native speakers may have. Prerequisite: LING 220.

LING 440 **Theory and Practice of TESOL Methodology** (4, S)  
Examines the language, reading, and writing development of English language learners. It explores TESOL methodology, assessment techniques, and ways to create a learning environment that nurtures language and literacy development. Students articulate a philosophy of TESOL and put learning into practice in a weekly practicum. (Prerequisite: LING 220, LING/EDUC 351 and LING 350, or permission of instructor.)

# Theology (minor)

**Department of Theology:** Kristina LaCelle-Peterson, chair. W. Christopher Stewart, Associate Dean  
**Faculty:** John N. Brittain, Jonathan P. Case, Richard K. Eckley, Kristina LaCelle-Peterson, J. Michael Walters  
**Web site:** [www.houghton.edu/academics/programs/religion-philosophy](http://www.houghton.edu/academics/programs/religion-philosophy)  
**Phone:** 585.567.9460

**Minor:** (12 hours)  
The theology minor provides concentrated study in Christian doctrine, apologetics, and church history.  
Minor required courses:  
THEL 313 Systematic Theology..... 4  
Remaining hours ..... 8  
(selected from the following list except THEL 209)

## COURSE DESCRIPTIONS

THEL 209 **Introduction to Christianity** (4, 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. This course is a prerequisite for all other THEL courses. Faith Foundation: Theology.

THEL 215 **Christian Apologetics** (4, S10 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 220 **History of Christianity** (4, F)  
Examines the ancient, medieval, Reformation and modern development of Christianity in its various contexts. Attention will be given to the lives of prominent men and women as well as doctrines and institutions developed in each era. Connections with current theological issues and church practice will be considered.

THEL/PHIL 300 **Christianity and Postmodernism** (4, F)  
Explores relationship between Christian faith and practice and postmodern culture. Primary & secondary readings drawn from a variety of disciplines and sources explore the implications of postmodernism for church, individuals, the media & popular culture.

THEL 313 **Systematic Theology** (4, F)  
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** (4, S)  
Study of the Wesleyan movement from the Wesleys to the present. Emphases on the history of The Wesleyan Church and the doctrine of holiness.
- THEL/MIN 316 Worship in the Church** (4, F10 & alternate years)  
An introduction to liturgical theology including explorations into the Biblical and theological foundations for worship and the sacramental life of the church. Special emphasis is given to the task of contextualization in planning worship services, and examining the pastoral role in the church's liturgical life and witness.
- THEL 320 Spiritual Formation** (4, F)  
Examines the nature and process of spiritual growth and maturation in the life of the Christian. As an academic course of study, this class arises out of ascetical theology and thus emphasizes the writings of early, medieval, and later Christians. Primary emphasis is given to the role of the classical spiritual disciplines in the formation of character.
- THEL 333 Major Figures in Theology** (2 or 4, 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** (2 or 4, OD)  
Topics of current theological interest. Specific schools of theology, doctrines, or theological trends will be considered.
- THEL 337 Theological Foundations of the Family** (4, OD)  
Study of major conceptual designs for family. Will emphasize a comparative analysis of religious models and the relationships between these influential systems and family practices. Introduces students to the role of the family in ethical value formation.
- THEL/PHIL 340 The Nature of God** (2, F)  
Introductory course in philosophical theology, focusing on the concept of God. Philosophical analysis of divine attributes (such as God's power, knowledge, goodness, and relation to time).
- THEL/PHIL 350 Reason and Religious Belief** (2, F)  
Introductory course in religious epistemology, focusing on the sources of religious knowledge and the rationality of religious belief. Philosophical analysis of arguments for God's existence, the problem of evil, and the roles of faith and reason in religious belief.
- THEL 325 American Church History** (4, F)  
Examines the historical and theological roots of the varied Christian traditions in the US. Attention will be given to European traditions transplanted in the new world and to the ways they developed in the American context; also consideration of the indigenous American Christian traditions and the resulting variety of ecclesial configurations.
- THEL 368 The Reformation** (4, OD)  
(Alternative number for history major credit: HIST 368) A survey of the continental, English, and Roman Catholic reformation of the 16th century.
- THEL/PHIL 455 Aquinas** (2 or 4, F or S)  
Seminar on the thought of Thomas Aquinas involving a close reading of Aquinas' most important work, the *Summa Theologiae*, with occasional supplementation from other relevant primary and secondary literature.
- THEL/PHIL 475 Kierkegaard: A Man for All Disciplines** (4, F11)  
Reading seminar on some key works of the "melancholy Dane," including (for example) *Either/Or*, *Fear and Trembling*, *The Sickness Unto Death*, the *Philosophical Fragments* and *Concluding Unscientific Postscript*. A "man for all disciplines," Kierkegaard's writings continue to attract interest for their philosophical and theological insight as well as their literary sophistication. (Cross-listed with Philosophy)
- THEL/PHIL 485 Issues in Philosophical Theology** (4, S11)  
Seminar in which selected topics in Christian theology are examined via close reading and discussion of his-

torical and contemporary works of philosophical theology. Examples of topics considered: Divine Attributes, Divine Providence (and Human Freedom), God and Ethics, Faith. The specific issue(s) to be considered will be identified each time the course is scheduled. Repeatable when topics are diverse. (Cross-listed with Philosophy)

THEL 495 **Special Topics** (1-4, OD)

THEL 191, -2; 291, -2; 391, -2; 491, -2 **Independent Study** (1, 2, 3 or 4 hours)

Urban Ministry (minor)  
(see also Intercultural Studies urban ministry concentration)

**Department of Theology:** Kristina LaCelle-Peterson, chair. W. Christopher Stewart, Associate Dean

**Faculty:** Richard K. Eckley, Paul W. Shea  
**Web site:** www.houghton.edu/academics/programs/religion-philosophy  
**Phone:** 585.567.9460

**Minor:** (16 hours)

CRFM 231	Foundations of Educational Ministries .....	2
<i>or</i>		
MIN 210	Intro to Christian Ministries .....	2
URMN 212	Urban Ministry .....	4
URMN 250	Evangelism and Social Action in the Urban Context .....	3
URMN 300	Urban Ministry Field Experience and Seminar .....	3
URMN 350	The City in Biblical and Theological Perspective .....	4

COURSE DESCRIPTIONS

URMN 212 **Urban Ministry** (4, F)  
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. This course has a fee.

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 at West Seneca campus.

URMN 300 **Urban Ministry Field Experience and Seminar** (3, OD)  
Supervised field experience in a core-city church or para-church organization. Seminar with weekly cluster meeting of participating students to synthesize academic and field experience as a group. Requires 120 hours of field work. Prerequisites: URMN 212 and declaration of minor.

URMN 325 **Life in the City** (3)  
(See Off Campus Programs – Houghton College City Semester for description.)

URMN 350 **The City in Biblical and Theological Perspective** (4, OD)  
In-depth survey of the Scriptures from Genesis to Revelation examining the city as symbol and social reality. Analysis of various theological perspectives (Augustine, Ellul, Cox, Mouw, and others). Prereq: URMN 212, and declaration of minor.

For more Urban Studies opportunities please see the City Semester listing under Off Campus Programs.

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# Writing (major and minor)

**Department of English and Writing:** James F. Wardwell, chair and Associate Dean

**Faculty:** Laurie A. Dashnau,, Lori L. Huth, Susan Bruxvoort Lipscomb, Linda Mills

Woolsey, Stephen A. Woolsey, James A. Zoller

**Web site:** [www.houghton.edu/academics/programs/english-writing](http://www.houghton.edu/academics/programs/english-writing)

**Phone:** 585.567.9670

**Major:** (36 hours in the major)

## General Information

The writing major provides students with a strong liberal arts preparation for a variety of careers including journalism, publishing, law, advertising, public relations, teaching and business. The major is designed to help students develop their skills in recording and communicating information as well as their ability to use writing as a tool for thinking, articulating ideas, and solving problems.

Required courses:

Three Literature courses numbered 216 and above.

Six Writing courses including:

WRIT 214	Literary Non-Fiction
WRIT 401	Workshop

**Minor:** (16 hours) 4 writing courses including WRIT 214 Literary Non-Fiction.

## COURSE DESCRIPTIONS

**WRIT 101 Writing in the Liberal Arts** (4, F&S)

Theme based seminar course in close reading, critical thinking, and the process of engaged writing. Techniques of expression, analysis and response. Competency – Writing.

**WRIT 214 Literary Non-Fiction** (4, F&S)

Writing across the range of forms available to the creative non-fiction writer, such as expository and persuasive writing and literary journalism. Emphasis will center on craft, personal presence, and writing for varied audiences.

**WRIT 215 Life Narratives** (4, F&S)

Techniques of personal essay, memoir, biographical essay, and related forms. Discussion of craft: nature of memory, ethics of selection, and role of the self in relation to others.

**WRIT 301 Fiction** (4, F)

Techniques of the traditional short story.

**WRIT 302 Poetry** (4, S)

Techniques of open and closed verse.

**WRIT 304 Screenwriting** (4, S11)

Techniques in writing screenplays. Emphasis on dramatic structure, cinematic rendering, story concept, and characterization.

**WRIT 307 Writing about Spiritual Experience** (4, F10)

Disciplines of the spiritual journal, writing and evangelism, the meditative essay, and devotional writing.

**WRIT 310 The Extended Narrative** (4, S11)

A multi-genre course exploring the differences and similarities of the nonfiction and fictive narrative. Prerequisite: WRIT 215 or WRIT 301.



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- WRIT 311 Poetry, Liturgy, and Worship** (4, F11)  
Techniques of poetry dedicated to worship in its several forms.
- WRIT 312 Creative Writing in Public Life** (4, S11)  
Study and practice in the various forms of writing dedicated to social awareness and action. Prerequisite: WRIT 214 or WRIT 215.
- WRIT 320 Special Topics in Writing** (1, 2, 3, or 4, OD)  
Opportunity for study of issues and problems of writing not covered elsewhere in the curriculum such as travel writing, writing for the younger audience, writing and the natural world, humor writing.
- WRIT 401 Workshop** (4, F)  
Life experience, project and task-centered integrative capstone.
- WRIT 403 Internship** (4, OD)  
Opportunities for practical off-campus experience. Workshop alternative with permission of Department Chair.
- WRIT 404 Praxis** (4, OD)  
Writing Center theory and practice.
- WRIT 291, -2; 391, -2; 491, -2 Independent Study** (1, 2, 3, or 4)
- WRIT 496 Honors in Writing** (4)
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## Youth Ministry (see Christian Formation, Youth Concentration)





## Off-Campus Programs

**Director:** Marcus W. Dean

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. Houghton's own programs are under the general direction of the academic dean and are staffed by faculty of various academic departments, as per the needs of each program. More detailed information is available through the Off-Campus Programs Office located in the Chamberlain Center, Room 414.

Participating in an off-campus program is an academic privilege that can enhance the student's education. Because of the additional demands faced in the off-campus setting, students are required to have a 2.5 or higher GPA to participate in any off-campus program. Several of Houghton's programs require a 2.75 GPA, and the First Year Honor's and East Meets West Honor's programs are by academic invitation.

### HOUGHTON PROGRAMS:

#### **First-Year Honors Programs**

This course of study occurs in the spring semester for selected first-year students. The selection process is by invitation to qualified applicants. There are options in the program: London, England; and Eastern Europe, "East meets West". All students in the First Year Honors Program are expected to maintain at least a 2.5 GPA in order to continue in the program, and failure to do so will trigger review by the Academic and Student life deans and the director of the program.

##### **London** - Program director: Linda Mills Woolsey

This course of study in the spring semester 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. Competency: Writing, Culture: Art or Music, Culture: History, Culture: Literature, Culture: Philosophy.

##### **East Meets West** - Program director: Meic Pearse

This course of study in the spring semester and Mayterm focuses on the relationship between the "East" (Eastern Europe), the "Middle East," and the "West". The student will take 12 hours on-campus (with the option to take another course), and three hours will be taken during Mayterm in Eastern Europe. Dr. Pearse will be assisted in the teaching of the course by one member of the Political Science department and two members of the English department. Competency: Writing, Faith Foundation: Theology, Culture: History, Culture: Literature, Community: Political Science.

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**Houghton College City Semester** – Program director: Charles Massey

The purpose of the Houghton College City Semester is to afford students the opportunity to experience urban life as a form of learning. The City Semester combines a structured introduction to the patterns and dynamics of urban settlement with experiential learning via internships and service opportunities – pedagogically, reading and discussion with field study. Abstract ideas become more meaningful when introduced with a sense of place: an introduction to “the city” is best carried out in the context of a specific city with an urban experience that engages all the senses. The combination of classroom learning and experience enhances both. The classroom without the experience fails to convey a sharp sense of the reality that ideas point us toward; the experience without the classroom is bereft of the structure and organization that allows for discernment and understanding. The interaction between ideas and experience is a catalyst for learning.

The City Semester program will operate both fall and spring semesters annually, beginning Spring Semester 2011, and will serve primarily students in their junior and senior years of study. (Course list follows.)

**Houghton in London** - Program director: Stephen Woolsey

In this fall semester program, upper-class students take 15 hours of credit in five courses. The employment of British Christian professors, living and studying together in a global, metropolitan community, London's rich historical and cultural resources, and opportunities for travel greatly enhance this semester. (Course list follows.)

**Houghton in Tanzania** - Program director: Jonathan E. Arensen

An intensive spring semester experience, Houghton in Tanzania offers the unique opportunity to study anthropology, history, animal ethology, linguistics, intercultural studies and ecotourism in East Africa. Students will visit the Wahehe, Masaai and other tribes, observe dozens of animal species in natural habitat, and develop an understanding of the history, language and culture of East Africa.

During the semester in Tanzania, a student may earn between 12 to 18 hours. (Course list follows.)

**Houghton in Australia** - Program director: Paul D. Young

For the Fall of 2010, Houghton in Australia is not being offered. The program is currently under revision.

## COURSE LISTINGS

**FIRST-YEAR HONORS****INTS 152 Honors Study in London**

(16, S)

Combines a traditional humanities curriculum with the opportunity to study in London. Integrates 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. Competency: Writing; Culture: Art or Music; Culture: History; Culture: Literature; Culture: Philosophy.

**INTS 153 East Meets West**

(12, S & 3, M)

Combines a traditional humanities curriculum with the opportunity to study the interaction of Eastern and Western culture. Integrating the disciplines of culture, literature, religion and politics, this course surveys the birth and maturation of Western culture from the ancient Greeks through the 20th century. The Mayterm trip to the Balkans provides a unique learning experience. Competency: Writing; Faith Foundation: Theology; Culture: History; Culture: Literature; Community: Political Science.

**PHED 141 Walking for Wellness**

(0, .5, or 1)

Physical coordination and conditioning; basic skills; appreciation for physical activity and lifetime fitness in Christian life. Health and Wellness: Point 4.

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## HOUGHTON COLLEGE CITY SEMESTER

### Core courses

#### **HIST/POLS 341 Conceptualizing the City: An Exploration of the City in Western Culture** (4-6)

Explores the history of cities and the ideas that have shaped both their objective development – in terms of their material culture, their economic base, and their political structure – and our subjective experience of them. Also considers social science explanations of urban development (why cities?), 20<sup>th</sup> century trends (suburbanization, metropolitanization) and reactions to them, and ponders the future of cities in the 21<sup>st</sup> century. Reading ranges over works of history, philosophy, literary fiction, and social science. Throughout, connections to the Buffalo experience provide concrete (sometimes literally concrete) illustrations of ideas and their effects.

#### **INTS 275 Engaging Urban Culture** (1)

Students will explore some aspects of urban culture. Meetings will be held every other week in a setting outside of the classroom. This course provides academic structure for engagement that will help students to experience, explore, and understand the complex diversity of Buffalo, and to foster reflection on our place in a diverse world. Events will be planned that explore features of urban culture, such as history, architecture, music, the visual and dramatic arts, and other aspects of Buffalo and its subcultures. [a lab or activity fee may be charged]

#### **MIN/MISS/SOC /URMN 325/PSY 324 Life in the City** (3)

The theme of urban life and mission as related to the sociology and psychology of the city is developed, focusing on life and ministry in the complexity and diversity of New York State's second largest city.

#### **Internship Experience** (4-6)

### Options

A cross registration course at other Buffalo area colleges, an independent study, an online course, or a main campus course using teleconference connection are additional options. (See Western New York Consortium in the General Information section of the catalog for information regarding cross registration.)

## HOUGHTON IN LONDON

#### **ART 230 Art in Europe Since the Renaissance** (3)

This course is an overview of the major phases of painting, sculpture and architecture in Europe from 1300 to the present day. The course is structured around a series of classroom lectures with slides and/or videos which are related to set texts, and to class visits to selected major London art collections. The purpose of the course is not only to impart historical knowledge but also to develop visual skills in analyzing how and why individual works of art look the way they do. Integral to the course, therefore, is also a series of sessions dealing with how works of art are made, e.g. materials, composition, and use of light, shade and color. Course assessment is through class-based written analysis of one or more works of art (shown on slides) and essays based on lectures and individual research.

#### **BIBL 395 Special Topics in Bible: Luke's Two Volumes** (3)

This course undertakes a close examination of the Gospel of Luke and Acts focusing on their narrative flow and unity, but also examining parts of the text for literary/historical detail and tracing various themes. The sessions will mainly be discussions around focus questions on texts, but there will be occasional lectures covering background.

#### **ENGL 390 Special Topics in Literature: Dramatic Lines** (3)

This course uses current dramatic productions in London as a resource for discussing connections between British drama present and past, Continental drama and British drama, and colonial and post-colonial drama.

#### **HIST 319 The History of Islam** (3)

This course will provide a survey of Islamic history between approximately AD 570-1979, representing Islam's inception with the birth of Muhammad and concluding with the Iranian revolution. It will cover major personalities, dynasties and themes. These will include the life of Muhammad, the Umayyad, Ottoman, Mughal and other great Islamic empires. Also addressed will be competing ideologies which have been most

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prominent throughout Islamic history, such as the debate between scholastic theology and textual literalism, and the rise of Islamic modernism in the early 20th century. The course will also consider the geographical diversity of Islamic history, covering Southeast Asia, the Indian subcontinent and the Middle East.

**PHED 141 Walking for Wellness**

(0, .5, or 1)

Physical coordination and conditioning; basic skills; appreciation for physical activity and lifetime fitness in Christian life. Health and Wellness: Point 4.

**HOUGHTON IN TANZANIA**

**Core courses**

These three courses are required. Other coursework is elective. Each student must take a minimum of 12 credits but is limited to a maximum of 18 credits.

**BIOL 207 Wildlife Behavior in East Africa**

(4)

Ethnology of East African wildlife including the principles of feeding and social behavior, mate selection, migrations and communication. Lectures and two weeks of field observations at the Tanzania Field Station. Creation: Lab science or 2<sup>nd</sup> science

**HIST 251 East African History**

(4)

East African history in context – 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 issues and challenges of today. Field trips and sight visits are a regular part of the course. [History, Intercultural Studies, International Relations, elective credit.]

**SOC/ANTH 293 East African Cultures**

(4)

Intensive study of East African ethnic groups – their beliefs, behaviors, work, societies. Lectures, which include foundational anthropological theory as well as ethnic descriptions, are augmented by observations and home stays amongst the Massai, Kelenjin, Murle, Hehe or other peoples. [Sociology, Intercultural Studies, International Relations, elective credit.]

**Optional courses**

**ENG 390 ST: African Folk Lore**

(2-4)

Africa has a rich heritage of oral literature. In recent years much of this has been recorded, translated and published. This course is primarily a reading course while in the African setting. Students will examine stories from many ethnic groups in genres such as etiological stories, trickster tales, myths and morality tales. The students will write short papers on each genre with a longer comprehensive term paper at the end of the course.

**INCL/INTR 311 Intercultural Experience**

(0-4)

Must submit written proposal for prior approval. Experiential credit based on everyday life in Tanzania culture, village stays, site visits, interviews, observations and extensive prior readings. Students will complete cultural profile, journal and summary paper on the experience. Intercultural Studies credit or International Relations. Prerequisite: INCL/INTR 310 Intercultural Competencies.

**MISS 395 ST: Missions in Africa**

(2-4)

The Gospel in East Africa. Exploration of the receptivity of the Gospel from first hand encounter with African Christians and church leaders. Analysis of traditions, practice, forms and experiences. Also, an examination of strategies for furthering the Gospel including varieties of missionary methods. First hand contact with numerous missionary efforts. Clear view of the impact of Christianity and the ongoing challenges in East Africa. Missions, Intercultural Studies or elective credits. Prerequisite: previous course work in missions or permission of instructor.

Other **Special Topic** and **Independent Study** credits may be available on given years or on demand.

**HOUGHTON IN AUSTRALIA**

For the Fall of 2010, Houghton in Australia is not being offered. The program is currently under revision.

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## GO ED

Go ED is a semester abroad program sponsored by a non-profit community development group focused on transforming the next generation to own and end poverty. Taught from a Christian perspective, students learn about the complexities of their discipline in a real world context from experts who are academically, professionally and spiritually qualified. Learning format includes lectures, field trips, and field work. Experience in applying theory to real problems is emphasized. Houghton College is an accrediting institution for this program which is offered both fall and spring semesters at Go Ed sited in Africa and the Mekong region of South East Asia. All courses receive Houghton credit. Ronald Oakerson is the campus contact. Visit the program's web site at [www.go-ed.org](http://www.go-ed.org).

### Course Descriptions Go-Ed Africa

Go-Ed Africa takes place in East Africa, primarily in Uganda and Rwanda. Placements may also be in Ethiopia.

#### ENGL 206 **Post-Colonial African Literature**

(3)

Students will journey not only to the African continent, but also into the hearts, minds and souls of the African people by reading novels, short stories, poetry, drama and oral tradition of postcolonial sub-Saharan Africa. Through reading literature written by people of the African continent, you will broaden and deepen your conceptual base for understanding what you see and hear during your semester in Africa. Students' worldview will be challenged hearing new voices expressing the African perspective on issues of race, gender, history, Western hegemony and the challenges Africa faces in shaping its own future in a rapidly changing world. To better understand African discourse in response to the incursion of Europe and the West, selections from European writers on Africa will provide a representation of the "native" in the imperialist ideology.

#### INCL 319 **Intercultural Practicum**

(3)

This course in the Go-Ed program is described as providing "hands on" cross-cultural experience with community development work in the field. Students will be exposed to international development programs and have the opportunity to work in cross-cultural work environments and contribute meaningfully to their assigned program. Students will begin to assess their own ability to live and work in cross-cultural settings as well as be introduced to the challenges faced in the millennial development goals. Available in Ethiopia, Rwanda, Kenya, and Uganda. Can substitute for INCL 311 for INCL majors/minors and ICE with INCL concentration.

#### ANTH/INCL 340 **African Traditional Culture and Religion**

(3)

This course deals with an overview of African traditional cultures and religion (ATR) as well as the challenges African cultures pose to Christians in Africa. Topics to be covered will include: the concept of culture, social groupings, ATR, characteristics of ATR, sources of ATR, African world view, basic values, religious leaders, mystical forces, African religious experience, ethics, ethics and morality, death and hereafter. Attention will also be focused on some specific societies. The changes currently taking place today will also be considered.

#### INCL 345/POLS 344 **Peacebuilding: Genocide and Religious Diversity**

(3)

Students will study the ethnic conflicts of Rwanda as a means of learning issues in the healing of trauma (both personal and social), the processes of building peace and establishing reconciliation. The history of Rwanda is important in understanding the basis of genocide. As students learn about the reconstruction process, they will discover the roles played by the state, church and nongovernmental organizations. Students will also consider the current social challenges brought on by the increasing presence of Islam in Rwanda and discuss the role of the international community both during the genocide and during the rebuilding process. Students will have the opportunity to interact with individuals who have experienced these human tragedies.

#### INCL 381 **Social Context for Community Development**

(3)

This course is an introduction to development and development theory. Students will acquire knowledge of and the ability to apply a variety of development strategies and methods. During the field component of the course students will be exposed to programming and sites where they will be able to apply the content material for assessing and recommending program alterations within the context of specific communities. Students will become acquainted with the Millennial Development Goals and their relevance to the area situations. Students will be exposed to a variety of strategies designed to involve members of the community in the process of development. Strategies for funding community development projects locally and internationally are explored.

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## Course Descriptions Go-Ed Mekong

Go-Ed Mekong takes place primarily in Thailand. Placements may also be in Cambodia, Bangladesh, the Philippines, or other South East Asian countries.

### INCL 255 **Thai Cultural Arts**

(3)

This course explores the Thai arts as both cultural expression and cultural epistemology (a way of engaging and knowing the world that differs from Western empiricism and consumerism). It provides hands on experience of the ways in which the arts can serve as an agent of preservation as well as an agent of transformation in culture. It seeks to guide students in the exploration of the spiritual, philosophical, social, and psychological drivers of the cultural arts in order to gain a deeper appreciation of diversity and human creativity. Students will be introduced to a broad array of artistic expression and media in Thailand under the guidance of local experts and artists (including visual arts, music, hand crafts, culinary arts, dance, Likay, and other performing arts). Students will come to appreciate the unique role and effectiveness of the arts in culture (e.g prophetic confrontation of injustice with the *status quo*, or communicating in ways that overcome linguistic barriers, etc.) and gain a new sense of value of the arts for their life and work. The course has a high emphasis on participation and reflection. Culture: Art.

### ANTH/INCL 256 **History, Religion, & Society of the Mekong Region**

(3)

This course provides an introduction of the historical and social context of the Mekong subregion of South East Asia and explores the dynamics between religious, political, and other social foundations and contemporary forces of change. The course begins with a survey of the major religions of the region (chiefly Buddhism and tribal Animism) and their enduring influence of worldview and culture. The course proceeds with a survey of regional history from ancient times (including the La Na kingdom, of particular significance to Chiang Mai's heritage) through nation building and international relations to the emergence of globalization. Students will be guided to explore the influence of intangible factors on tangible institutions and historical events. The course includes several excursions to nearby sites and guest lectures to ground the knowledge of the Mekong region with an experiential sense of place and perspective.

### INCL/POLS 314 **Exclusion and Exploitation: marginal people of the Mekong**

(3)

This course examines the exclusion and exploitation of people in the Greater Mekong Sub-region (GMS). Topics to be covered include: Identifying the various groups of people who are marginalized in the GMS and the basis of their exclusion (including race, ethnicity, nationality, citizenship, gender, religion, economic status, and other factors); Describing the types of injustice faced (including poverty, human rights violations, discrimination, prejudice, genocide, persecution, labor exploitation, trafficking, prostitution, forced migration of IDPs, refugees and economic refugees); Examining the history, context and causes of exclusion and exploitation; and Analyzing indigenous, governmental, NGO, and faith-based responses.

### INCL 319 **Intercultural Practicum**

(3)

This course in the Go-Ed program is described as providing "hands on" cross-cultural experience with community development work in the field. Students will be exposed to international development programs and have the opportunity to work in cross-cultural work environments and contribute meaningfully to their assigned program. Students will begin to assess their own ability to live and work in cross-cultural settings as well as be introduced to the challenges faced in the millennial development goals. Potential sites include Thailand, Cambodia, Bangladesh, the Philippines, and other South East Asian countries. Can substitute for INCL 311 for INCL majors/minors and ICE with INCL concentration.

### INCL 381 **Social Context for Community Development**

(3)

This course is an introduction to development and development theory. Students will acquire knowledge of and the ability to apply a variety of development strategies and methods. During the field component of the course students will be exposed to programming and sites where they will be able to apply the content material for assessing and recommending program alterations within the context of specific communities. Students will become acquainted with the Millennial Development Goals and their relevance to area situations. Students will be exposed to a variety of strategies designed to involve members of the community in the process of development. Strategies for funding community development projects locally and internationally are explored.



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## COUNCIL-SPONSORED PROGRAMS:

### Opportunities in the CCCU

Because Houghton is a member of the Council for Christian Colleges & Universities, an association of more than 100 private liberal arts Christian colleges, a number of off-campus learning opportunities (and some course descriptions) are listed below:

### AMERICAN STUDIES PROGRAM

Founded in 1976, the American Studies Program has served hundreds of students as a “Washington, D.C. campus.” ASP uses Washington as a stimulating educational laboratory where collegians gain hands-on experience with an internship in their chosen field. Internships are tailored to fit the students’ talents and aspirations and are available in a wide range of fields. Participants also explore pressing national and international issues in public policy seminars that are issue-oriented, interdisciplinary and led by ASP faculty and Washington professionals. The ASP bridges classroom and marketplace, combining Biblical reflection, policy analysis and real world experience. Students are exposed to on-the-job learning that helps them build for their futures and gain perspective on the calling of God for their lives. They are challenged in a rigorous course of study to discover for themselves the meaning of Christ’s lordship by putting their beliefs into practice. The aim of the program is to help Council schools prepare their students to live faithfully in contemporary society as followers of Christ. Students earn 16 semester hours of credit.

## COURSE DESCRIPTIONS

### Topics in Vocational Leadership *(5-week module)* (3)

The course introduces concepts for Christian responsibility and involvement in public issues important to your internship. It asks what it means for you to “enact” your vocation by living out the truth of your convictions in “real life.” By focusing on a public topic salient to your internship placement, you learn to use (1) basic techniques for issue analysis and (2) the narrative pattern of the Bible (creation, fall, redemption, consummation) as an analytical framework. Reflecting on the responsibilities, challenges and opportunities that arise from your internship experience, attention is given both to the larger Biblical narrative and to your own unique story, identity and gifting. Unlike other 5-week ASP modular courses, this course stresses interaction with your internship placement and extends across the semester, beginning with the term’s first two weeks, involving a week at midterm and concluding with the term’s last two weeks.

### Internship Placement: *(14-week part-time work)* (6)

This course is an internship placement that continues across the semester. You must work a minimum average of 20 hours a week for a minimum of 13 weeks to receive 6 semester hours of credit. Although ASP has placed students in hundreds of agencies and offices throughout the greater Washington metropolitan area, each internship placement is designed with you in mind. Your position and duties are arranged through a careful process involving ASP, the sponsoring agency and you. You receive academic credit for this course so you cannot be paid for your work. Your internship is carefully monitored by ASP faculty. Faculty monitors confer with you and your on-site supervisor. Your faculty monitor also visits your internship site at least once during the term. To successfully complete an internship, you are required to (1) submit three reflection essays on your experiences & observations, (2) get “the big picture” surrounding your placement by attending events around the city, and (3) read and reflect on an internship text.

### Mentorship Course (optional): *(4 mentor meetings)* (1)

This optional course gives you the opportunity to meet with a professional mentor in your field four times during the semester. You submit four recorded individual oral reflections to your faculty monitor, one following each of the four professional mentor meetings, and one recorded group oral reflection to your faculty monitor at the conclusion of the semester. Your oral reflections (1) demonstrate an effort to learn from your mentor’s experience and background to clarify your career aspirations and emerging vocational vision and (2) draw upon a biography or novel (chosen by your mentor) to wrestle with questions, insights and implications raised by the text for your internship and life experience and for your developing sense of call.

### Public Policy Initiatives Track

### Policy Analysis & Advocacy Seminar (3)

Provides a detailed survey of the public policy issue of international migration. Migrants may be forced or vol-



untary travelers; legal or illegal sojourners; temporary or permanent residents. The one constant is that international migration patterns always carry important political implications for both the sending and receiving countries. Its study provides opportunity for learners to address critical questions pertaining to contemporary citizenship, democratic practice, equality, freedom, globalization, and liberalism.

**Public Policy Project** (3)  
Students are involved in proposing, researching and planning a public policy project.

**Global Humanitarian Enterprise Track**  
**Entrepreneurship & Human Development Seminar** (3)  
Provides students with a detailed introduction to the unique community of partnerships emerging in Washington, D.C. among commercial, governmental, and non-governmental organizations. ASP faculty and guest practitioners provide a comparative analysis of different approaches to the design and management of these types of collaborations as they pertain to the global development issue of hunger/food security. As part of their analysis, students are required to reflect on the biblical demands of justice as they pertain to food security, and how these demands ought to be translated across the different institutional roles and responsibilities that comprise these partnerships.

**Global Development Partnership Exercise** (3)  
Students will propose, research and present a project for a relief and development organization.

**CREDITS:**  
The program recommends to the home institution that you receive the equivalent of 15 or 16 semester hours of credit, depending on your choice of options.

**CHINA STUDIES PROGRAM**  
The China Studies Program enables students to engage this ancient and intriguing country from the inside. While living in and experiencing Chinese civilization firsthand, students participate in seminar courses on the historical, cultural, religious, geographic and economic realities of this strategic and populous nation. In addition to the study of standard Chinese language, students are given opportunities such as assisting Chinese students learning English or working in an orphanage, allowing for one-on-one interaction. Students choose between completing a broad Chinese Studies concentration or a Business Concentration that includes a three-week, full-time internship. The program introduces students to the diversity of China, including Beijing, Shanghai, Xi'an and Xiamen. This interdisciplinary, cross cultural program enables students to deal with this increasingly important part of the world in an informed, Christ centered way. Students earn 16-17 semester hours of credit.

**COURSE DESCRIPTIONS**  
{Note: The course descriptions have been arranged to follow the pattern above of the three that all take and then the concentrations}

**Required Courses:**  
**Chinese History** (3)  
One third of this seminar course consists of lectures, one third consists of presentations by the students, and one third consists of field trips to historical sites. The course covers the history of China from its earliest beginnings up to the present. Students become familiar with the major dynasties of China, their character and contributions, and their major figures. On a study tour to Xi'an, Beijing, and Shanghai, students visit many of the most famous Chinese sites of historical importance, including the Terra Cotta Soldiers, the Forbidden City, the Great Wall, the temple of Heaven, the Shanghai Museum, and much more. Each student will also read and make a presentation on a book about one significant event or person in Chinese history, such as the Boxer rebellion, the Mongol empire, the international voyages or the Ming Dynasty, Matteo Ricci, etc. [Possible credit: history, cross-cultural studies.]

**Intercultural Communication** (3)  
This course covers issues intended to help students understand and adjust to Chinese culture. The focus will be on how our students demonstrate their beliefs in their daily lives within the context of China. Topics

include culture and basic values; culture shock, introductory linguistics, contextualization and factors involved in successful cross-cultural interaction. Well-known films featuring famous actors (both Western and Chinese) that focus on cross-cultural experiences will be shown and discussed each week. [Possible credit: sociology, cross-cultural studies, communication, linguistics.]

**Contemporary: Public Policy & Economic Development** (3)

This required course examines two key and inter-related aspects of modern China: government policy and economic reforms. Public Policy covers the structure of the Chinese government, social rights and the legal system, and issues such as ethnic minorities, family planning and education. Economic development focuses on the government policies from 1949 to present, from the commune system to the current market-oriented reforms. Other topics include foreign investment, pollutions and the environment, and the World Trade Organization. Each student will present an investigative report based on interviews with Chinese about a topic relating to contemporary Chinese society that is of particular interest to Americans. All students will also prepare a marketing paper in which they describe and analyze the ways an American or international company markets its products or its franchise in China. The goal of this course is for students to learn about China by seeking out informed Chinese themselves. [Possible credit: political science, cross-cultural studies, sociology, history, business and economics.]

**China Studies Concentration**  
**Chinese I** (3)

This course in introductory Chinese focuses on acquiring survival fluency in spoken and written Chinese. The emphasis is on the spoken form of Mandarin Chinese, the national language of China. Students who already have studied Chinese may apply for a more advanced class. All students take the written exams for Chinese characters, vocabulary and grammar of the CSP Chinese I course.

**Chinese II** (3)

This course focuses on acquiring low-intermediate fluency in spoken and written Chinese so that a student can handle situations such as travel planning, illness, making appointments, etc. The emphasis is on the spoken form of Mandarin Chinese, the national language of China. There will also be lectures on Chinese dialects, simplified v. traditional characters and word radicals.

**Eastern Philosophy and Religions** (3)

This course introduces the teachings, history, and development of Confucianism, Taoism, Buddhism, and folk religion as well as their role in China today. Other topics covered are the I Ching, Yin and Yang, the Five Phases and the widely varying ways the gospel has been introduced into China over the last 15 centuries. The course will also examine these topics from a Christian perspective, seeing to what extent they might relate to Christian doctrine. Field trips to relevant sites will occur throughout the program.

Electives: (One or Both)

**Chinese Painting** (1)

Students will learn to paint from a Chinese artist. They will practice the basics of Chinese water-based brushwork, painting traditional pictures of bamboo, flowers, etc.

**Tai Chi** (1)

This physical education course emphasizes the traditional Chinese forms of stylized self-defense, which tones the body and concentrates the mind. Exercises may focus on either the gentler form of tai chi, or on the more vigorous wu shu, depending on who is teaching that semester.

**Business Concentration:**  
**Chinese I** (2)

This course focuses on acquiring survival fluency in spoken and written Mandarin Chinese, the national language of China. Classes with the Xiamen University teacher occur on Mondays, Wednesdays and Fridays. Chinese I classes with CSP teachers will be held as scheduled and include explanations on aspects of learning the languages such as Pinyin (the spelling system used on Mainland China) and tones along with activities such as memorizing an ancient Chinese poem *in Mandarin* and learning Chinese pop songs. Students who already have studied Chinese may apply for a more advanced class, in which they study with their own teacher

with other advanced-language CSP students (if any). The course work will be adjusted based on the overall capabilities of the students involved. All students take the written exams for Chinese characters, vocabulary, and grammar of the CSP Chinese I.

**International Business in China** (3)

In this course, students hear talks presented by Christians who have done business in China for years. The talks cover issues such as fair and ethical business practices and the factors involved in out-sourcing jobs to China. Additionally, students write responses to assigned readings from the course text, engage in frank discussions with the Internship Coordinator about what to expect and how to deal with business in China and meet with business leaders in Shanghai. Finally, these students prepare a group “end-of-semester” presentation for the rest of the CSP students highlighting what they have learned.

**Business Internship** (3)

The Internship Coordinator will make every attempt to place students in job placements that will provide meaningful work experience for the three-week internships, working full-time (40+hrs/week) for either Western or Chinese companies. Currently, nearly all of these internship placements are in Xiamen city.

**CONTEMPORARY MUSIC CENTER**

The Contemporary Music Center provides students with the opportunity to live and work in community while seeking to understand how God will have them integrate music, faith and business. Both interdisciplinary and multidisciplinary in nature, the CMC offers two tracks: the Artist Track and the Executive Track. The Artist Track is tailored to students considering careers as vocalists, musicians, songwriters, recording artists, performers, producers and recording engineers. The Executive Track is designed for business, arts management, marketing, communications and related majors interested in possible careers as artist managers, agents, record company executives, music publishers, concert promoters and entertainment industry entrepreneurs. Both Artist and Executive track students receive instruction, experience and a uniquely Christian perspective on creativity and the marketplace, while working together to create and market a recording of original music. Both tracks include course work, labs, directed study and a practicum. Students earn 16 semester hours of credit.

**Core Courses:**

**Faith, Music and Culture** (3)

The purpose of this course is to help students develop a Christian approach to the creation, marketing and consumption of contemporary music. While engaging in studies of theory, history and criticism, students explore the concept of culture as well as the nature of popular culture and examine popular art and music in contemporary aesthetic, social cultural and industrial contexts. Additional topics include a study of the role of popular music in cultural communication, the development of a Christian critical method and an examination of different Christian approaches to popular art and culture.

**Inside the Music Industry** (3)

Through readings, lectures and seminars, this course provides up-to-the-minute insight into the inner workings of the music industry. Emphasis will be given to career possibilities and gifts and skills required to succeed in each of the major areas, including work as a performer, songwriter, record producer and engineer, etc. Students gain an understanding of the structure and methodologies of a typical U.S. record company, including A&R, marketing, radio promotion, public relations, sales & distribution, product development, art, manufacturing and business affairs.

**Practicum** (1)

Each student participates in an intensive road trip to a major music market. Briefings, tours and meetings are arranged with leading record companies, artist management firms, booking agencies, recording studios, concert promoters, writers, producers and artists in various cities.

**Artist Track:**

**Essentials of Songwriting** (3)

Artists receive classroom instruction, participate in directed study with faculty and work in collaboration with other students to develop their use of form, melody, harmony, rhythm and lyric. Emphasis is placed on the song as the vehicle for the artist’s creative exploration and public communication.

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### **Studio Recording**

(3)

Artists, via both the classroom and lab, work with faculty, other students and visiting experts to learn how to produce, record, mix edit and master recordings in a professional digital studio.

### **Performance**

(3)

In consultation with faculty and executive-track students, artists develop a live concert presentation that best utilizes their gifts as musicians, entertainers and communicator. Both on-campus showcases and public performances are presented throughout the semester.

### **Executive Track:**

#### **Artist Management**

(3)

Through lecture, text and online investigations, students gain a thorough understanding of the economic, creative and spiritual elements critical to a career in contemporary music. In concert with faculty, students assist artist-track students in developing a career plan and preparing the materials necessary to pitch an artist to a record company and negotiate a recording contract.

#### **A & R (Artists and Repertoire)**

(3)

Executives learn how to spot talent; create a music label business plan; analyze and forecast trends in popular music; assemble a successful artist roster; and, in tandem with artists, plan, budget and produce recording sessions.

#### **Music Marketing and Sales**

(3)

Through classroom instruction and hands-on experience, executive-track students become familiar with the role of packaging, retail point-of-purchase materials, publicity, advertising, radio and video promotion, internet marketing and tour support in the marketing and sale of recorded music. Executives will develop a comprehensive marketing plan for each semester's artist-track recordings.

## **LATIN AMERICAN STUDIES PROGRAM**

Based in San Jose, Costa Rica, the Latin American Studies Program introduces students to a wide range of experience through the study of the language, literature, culture, politics, history, economics, ecology and religion of the region. Through service learning and living with local families, students become a part of the day-to-day lives of typical Latin Americans. Students also take part in a service opportunity and travel for three weeks to nearby Central American nations. Students participate in one of four concentrations: Latin American Studies (offered both fall and spring terms); advanced language and literature (designed for Spanish majors and offered both fall and spring terms); international business: management and marketing (offered only in fall terms); and environmental science (offered only during spring terms). Depending on their concentration, students travel to nearby Central American nations including Nicaragua, Guatemala, Cuba and Panama. Students in all concentrations earn 16-18 semester credits.

### **Course Descriptions**

#### **Spanish Language Study**

(6)

Students come to Costa Rica with varying degrees of fluency in Spanish, so LASP places them in the Spanish course that corresponds to each participant's level of oral proficiency based on a placement exam and interview during the orientation. Students study grammar, conversation, phonetics and/or literature based on the results of their tests. Classes are taught by Latin Americans, which means participants hear and learn the language the way it is spoken in Latin America. This is reinforced during everyday interaction with Spanish-speaking host families.

#### **Latin American History, Contemporary Issues and Perspectives**

(3)

This seminar introduces the social, historical, political, economic, philosophical and theological currents that constitute Latin American society and culture. The course includes personal discussions with Latins and field trips to various sites. This seminar is designed to introduce students to the:

- Historical development of Latin America, including selected case studies.
- Variety of analytical perspectives from which Latin American reality is explained and understood.
- Character, past and present, of U.S. policy in the region.
- Nature and influence of the economic reality in the region.

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## Travel Practicum

(1-3)

The LASP group travels to several countries in Central America during the semester. The travel practicum component is not a vacation trip; it is an integral part of the learning process. Among other assignments, students will be required to attend conferences and maintain a journal of ideas and perceptions developed throughout the trips.

## Concentrations:

### Latin American Studies Concentration

Faith and Practice Seminar

(3)

Service Opportunity/Internship

(3)

This concentration is interdisciplinary by design. Students are challenged in a seminar that includes diverse perspective, broad readings and group presentations which respond to scenarios drawn from the contemporary scene. Participants also gain valuable first-hand experiences in related service opportunities. In recent semesters, these have been organized in neighboring countries throughout Latin America. (Prerequisite: Equivalency of one year of college Spanish.)

### Advanced Language and Literature Concentration

Language and Literature Seminar

(3)

Service opportunity/Internship

(3)

This concentration focuses on the social, cultural, political, economic and religious issues of Latin America in the target language. Students examine how Latin Americans view their neighbors to the north. As a part of this concentration students examine Latin America through its literature, using it as a means to examine society and culture. (Designed for Spanish language majors with a minimum of one year of college or university intermediate Spanish and one semester of advanced Spanish conversation and/or composition.)

### Environmental Science Concentration (Spring Semester only)

Science Seminar

(4)

Field Research

(2)

Participants in this concentration explore the natural sciences in a tropical setting and study their influence on the process of sustainability. Students are immersed in a variety of ecosystems: dry forests, lowland rain forests, mountain cloud forests, volcanic regions, as well as beautiful reefs. Costa Rica serves as a natural laboratory.

(Required prerequisites: One semester of zoology or an applied laboratory science. Recommended prerequisites: One semester of general chemistry or physics.)

## LOS ANGELES FILM STUDIES CENTER

Founded in 1991, the Los Angeles Film Studies Center is designed to train students to serve in various aspects of the film industry with both professional skill and Christian integrity. Each semester, students live, learn, and work in L.A. The curriculum consists of two required seminars, *Hollywood Production Workshop* and *Theology in Hollywood*, focusing on the role of film in culture and the relationship of faith to work in this very influential industry. In addition, students choose one elective course from a variety of offerings in film studies. Internships in various segments of the film industry provide students with hands-on experience. The combination of the internship and seminars allows students to explore the film industry within a Christian context and from a liberal arts perspective. Students earn 16 semester hours of credit, 6 from the internship and 10 from seminar study.

## Course Descriptions

### Internship: Inside Hollywood

(6)

Nonpaying internship in some aspect of the Hollywood film or television industry, arranged by the LAFSC. Internships are primarily in an office setting such as development companies, agencies, personal management companies, production offices, etc.

### Hollywood Production Workshop

(3)

Students work collaboratively in groups to create a festival-ready piece, including all the legal documentation and rights to enable the finished production to qualify for festival submission. Offers students the opportunity to make a motion picture production using Hollywood locations, resources, and protocol. Emphasizes the

importance of each contribution to a production, the process of production, and effective production management.

**Theology in Hollywood** (4)

Encourages the development of the necessary skills for analysis of the culture of Hollywood, its role in popular culture and the theological intersections therein. Seeks theological engagement with the culture of Hollywood and cinema by investigating some of the social, ethical, and psychological implications of film upon theology.

(Electives, choose 1)

**Motion Picture Production** (3)

An intense, hands-on course in short film production. Students individually write, shoot, direct, and edit their own projects. Visual storytelling is achieved through developing skills in directing, cinematography, and editing. Designed to enable both novice and advanced students to develop their integration of story with technical skills.

**Professional Screenwriting** (3)

An introduction to contemporary screenwriting, including an understanding of dramatic structure, character and dialogue development, and the writing process. Students strive to complete a full-length screenplay for a feature film or “movie-of-the-week.” Emphasis is given to the role of Christian faith and values as they relate to script content.

**Independent Study** (3)

Set up by special request and arrangement. In order to be considered, students must submit a portfolio and a project proposal. Students with approved projects will be appointed a mentor to supervise the project. Projects could include further development of a portfolio or reel, critical research, or a senior thesis project.

**MIDDLE EAST STUDIES PROGRAM**

Based in Cairo, Egypt, this program offers students a unique opportunity to explore and interact with the complex and strategic world of the modern Middle East. Students explore diverse religious, social, cultural and political traditions of Middle Eastern peoples through interdisciplinary seminars. Students also study the Arabic language and work as volunteers with various organizations in Cairo. Through travel in the region (typically Israel, Palestine, Lebanon, Jordan, Syria and Turkey), students are exposed to the diversity and dynamism of the region. At a time of tension and change in the Middle East, MESP encourages and equips students to relate to the Muslim world in an informed, constructive and Christ-centered manner. Students earn 16 semester hours of credit.

**COURSE DESCRIPTIONS**

**Introduction to Arabic Language** (4)

This course, taught by Egyptian instructors affiliated with the American University in Cairo, aims to help students acquire basic skills in Egyptian Arabic, a dialect widely understood in the Arab world. The course emphasizes the practical use of the language, encouraging interaction with the locals through the use of the “Cairo Lab” assignments or during visits to service projects. Small classes four days a week offer a solid introduction to the colloquial grammar and a substantial vocabulary as students take more than 100 hours of instruction. Once completed, the course should bring students to the intermediate level of Egyptian colloquial Arabic. [Possible credit: language/cross-cultural.]

**Islamic Thought and Practice in the Middle East** (4)

This course examines the doctrines, rituals, jurisprudence, and historical vision of Islam with an emphasis on contemporary expressions of Islam in the Middle East. Special attention is given to the historical origins of religious traditions which are still alive today, namely Sunni, Shi’ite (Zaydi, Isma’ili, and Twelver) and Sufi Islam as well as the central features of Islamic theology and jurisprudence: the Qur’an, the Hadith, Kalaam, and legal reasoning.

Students study modern political and social expressions of Islam, including the Muslim Brotherhood, “Islamic States” (Saudi Arabia, Iran), Muslim women and gender issues. They are encouraged to carefully examine the

historical development and religious claims of these Islamic traditions, especially in regards to the Christian faith. Students encounter the complex diversity of the “Islamic World” and in so doing gain a better understanding of the diversity of humanity. [Possible credit: history/religion.]

**Conflict and Change in the Middle East** (4)

The purpose of this course is to help students understand the historical, political and religious transformations that have occurred in the last century. Included are discussions of economic development and the political and social implications for Middle Eastern peoples. The Arab-Israeli conflict will receive special emphasis with the goal of helping students understand the complexity of the issues surrounding the current attempts to establish a lasting peace. The course includes an extended travel component based in Jerusalem in order to gain firsthand Israeli and Palestinian perspectives and ideas regarding resolution of the conflict. In Cairo, students enjoy on site briefings from experts at the World Bank, the Arab League and the U.S. Embassy. [Possible credit: political science/history.]

**Peoples and Cultures of the Middle East** (4)

Using a Socio-anthropological approach, this course seeks to acquaint the students with the enormous varieties of peoples and cultures found in the Middle East. Literature, music, dance and food are integrated into the learning experience. The course examines the basic structure of historical and contemporary societies and cultures with special emphasis on those found in Egypt, Jordan, Syria, and Turkey. The MESP travels to these countries during two weeks of this course, learning about the various ethnic groups firsthand. Students study such groups as Bedouins, Kurds, Jordanians, Turks, Yoruks, Syriac Syrians, Armenians and more. Historical sites include Damascus, Aleppo, Antioch, Cappadocia and Istanbul. Social organization, law, family, tribe, gender, rural-urban migration and social change are among the areas of inquiry in this course. [Possible credit: sociology/anthropology.]

**OXFORD SUMMER SCHOOL PROGRAM**

The Oxford Summer Programme (OSP) is a programme of the Council for Christian Colleges & Universities and **Wycliffe Hall**, Oxford. Wycliffe Hall was established in Oxford in 1877 with a vision for training godly Christian leaders for the church and is a centre for both ministerial training and academic study. The programme is designed to enable students to gain a more comprehensive understanding of the Christian tradition in the British Isles and to do specialized work under Oxford academics. The Oxford Summer Programme may be taken for 6 credits and is appropriate for a variety of academic levels. See the Academic Records Office for courses offered.

**AFFILIATED PROGRAMS:**

**AuSable Institute of Environmental Studies**

Au Sable Institute, a Christian environmental learning center, offers Houghton students Mayterm and summer courses in biology, chemistry, geology and geography. Headquartered in Michigan, Au Sable runs programs in Michigan, Puget Sound (Washington State), south Florida, and southern India. Participants take courses, engage in scholarship, gain field experience, confer, and develop practical tools for environmental stewardship in programs that take seriously both science and theology. The Au Sable website (<http://ausable.org/ap.courses.cfm>) gives the complete listing of courses and programs. Scholarship assistance is available to students at Council-member colleges.

All Au Sable courses taken through Houghton are registered as a science area special topics course. Approval is needed through the appropriate department (usually Biology) working with the Au Sable faculty representative (Dr. James Wolfe in Biology) and Houghton's Off-campus Programs Office. A maximum of eight hours may be applied toward a major. Additional courses may be used for elective credit. Through a combination of courses taken at Houghton and Au Sable, a student may earn certification from Au Sable as one of the following: environmental analyst, land resources analyst, water 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 Dr. Wolfe and the Institute.

**EduVenture (Indonesia-Papua New Guinea)**

Currently operating in Indonesia-Papua New Guinea, EduVenture employs an educational philosophy that combines non-traditional and traditional approaches and that emphasizes guided experiential learning to build strong cross-cultural skills, provide students with a better understanding of nature and themselves, pro-



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vide practical, personal, social, and spiritual disciplines, guide students into a deeper relationship with God, and make a positive impact among the local people through cooperative development projects.

### **Applied Missions**

(3)

Applied missions is the capstone course of EduVenture, integrating anthropology, cross-cultural communication, spiritual growth and community development into biblically based principles of missions applicable in multi-cultural environments. The course will define missions and discuss models of missions conducted by various mission agencies in the region. [Can be taken as a mission elective.]

### **Physical Education**

(3)

This course provides an introductory experience in the skills, safety and philosophies of backpacking, kayaking, snorkeling and outdoor living skills. Opportunities will be provided to enjoy, explore and practice good stewardship of God's creation while developing an understanding of personal fitness as it pertains to an active lifestyle in the outdoors.

### **Community Development**

(3)

Students will learn through observation and participation about the importance of a people-centered approach to community development, focusing on equipping through training and discipleship rather than technology and projects.

### **Spiritual Formation**

(3)

Students will learn experientially about many of the foundational principles of spiritual formation including devotional time, fasting, solitude/meditation, service, prayer, scripture memorization, worship, discussion, and journaling. Spiritual growth will be facilitated by adult mentors. [Counts as an elective.]

### **Cross Cultural Communications**

(3)

This course addresses the process of communication in different cultural contexts. Insights from anthropology and communication theory are applied to the broader field of human relations. Approximately half of the course addresses theoretical models of communication while the other half is devoted to language acquisition and practice. [Counts as an elective, does not fulfill COMM/INCL 325 Cross-cultural Communication credit.]

### **Training In Ministry Outreach (TIMO)**

TIMO (Training in Ministry Outreach) is a two-year training program, equipping new career missionaries in the basics of evangelism and church planting with the goal of establishing a church. This is accomplished while living amongst an unchurched and, preferably, unreached people group. Each team is lead by an experienced missionary who has been prepared by the TIMO administration. The team leaders pour themselves into the training/mentoring of their team. One of the highest priorities for the team is learning the vernacular language of the host people group, using the LAMP method. To effectively learn language in this way, team members must build good relationships in the community, providing both the credibility and the opportunity for sharing Christ. Students take four units of study, each three to four months long. For each unit, books of varying perspective are read and interacted with by the team. At the weekly team meeting, the team works through the study topic in relationship to scripture, constantly looking at the practical applications. The goal is to write a personal philosophy of ministry for each unit with one final paper pulling the two year experience together.

These five courses are only offered in conjunction with TIMO, an arm of the Africa Inland Mission based in East Africa. Students must be part of a TIMO team undertaking a two year learning/ministry project with proper supervision.

**\*\*Special note:** This program is only available by special arrangement with TIMO. It cannot be pursued as a normal study abroad.

### **TLIN 202 Language Acquisition:**

Students will study the underlying philosophy for learning a language. They will study various theories on methods of language learning with an emphasis on right brain learning in a relational setting. The theory will then be put into practice in a community setting. The students will actually learn a language with weekly support and evaluation.



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**TMIS 204 Spiritual Dynamics and Power Encounters:**

This course will encourage the student to critically evaluate their understanding of the spiritual realms. This will be accomplished through reading the writings of a broad range of authors and a thorough study of Scriptures. The goal will be to understand the practical out workings of this topic in the host culture.

**TINC 206 Intercultural Research:**

Learning about culture through assigned readings, discussion and interaction with people from the host culture in which the student is living. This will include an evaluation of that culture with the goal of understanding how best to communicate with the people in a culturally appropriate manner.

**TMIS 306 Evangelism and Church Planting:**

Building on the principles of Intercultural Research, the student will seek to develop a biblical model of outreach which is faithful to scripture yet appropriate in the particular cultural context in which the student is living.

**TMIS 410 Cross-cultural Discipleship:**

After coming to an understanding of what a Biblical model of discipleship looks like, the student will propose a model which will take into account the distinctives of the host culture. This model should not just be theoretical, but will be used in relationships with members of the host culture.

**INCL 311 Intercultural Experience****INCL 482 Senior Intercultural Seminar****International Business Institute**

Houghton College is affiliated with the IBI of Messiah College. The 11-week summer program, normally taken following completion of the junior year, includes periods of residence in key locations as well as coordinated visits to major political, business, and economic centers of Western Europe and Russia. Applicants should have completed at least one full year of economics, one semester of accounting, one course in marketing, and one in management. These courses are unique to IBI and are all taken as part of the program. This program meets the cross-cultural study requirement for international studies majors.

## COURSE DESCRIPTIONS

**IBI-331 Comparative Economic Systems (3)**

A survey and critical study of comparative economic systems, their underlying ideological foundations and institutional arrangements. Prerequisites: one year of economic principles.

**IBI-339 Global Marketing (3)**

The theory and practice of current management concerns in contemporary global marketing including the international marketing environment, market research and entry, product planning and strategy; all within the distinctive cultural setting. Prerequisite: Course work in principles of marketing.

**IBI-350 International Trade and Finance (3)**

This course presents the central tools, concepts and issues in modern international economics. It provides a discussion of the analytical elements of international trade, trade policy, foreign exchange markets, exchange-rate systems and international monetary policy. Special topics to be covered include regional trade agreements, globalization, international financial crises, and the challenges facing the European Union (EU) and the European Monetary Union (EMU).

**IBI-357 Global Business Strategy (3)**

This course is designed to cover the major topics normally offered in a course in international business management and strategy. It also has a very important function of enabling the integration of field experiences, corporate visits, and presentations by guest faculty with the current theoretical developments and literature in this field. Students will be expected to prepare analytical reports on the various firms and institutions represented in the program.

Additional Off-Campus Opportunities

The college also has affiliation agreements with other institutions and organizations to provide further study abroad opportunities (see the list below). 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 reduced or not be possible with participation in some study-abroad programs.

Consortium Visitor

Houghton has agreements with most of the other 12 colleges in the Christian College Consortium to allow single-semester visiting student status at another college. For information on the opportunities, requirements, and essential paperwork, come to the Academic Records Office.

Tabular Listing of Off-Campus Programs (data is subject to change)

	HC Catalog Courses	Grades on Trnsript	HC Fin Aid Awarded	Qualifies Mayterm
<b>Houghton Programs</b>				
First-Year Honors	Yes	Yes	Yes	Yes
East Meets West Honors	Yes	Yes	Yes	Yes
Go Ed	Yes	Yes	Yes	Yes
Houghton in Australia	Yes	Yes	Yes	Yes
Houghton in London	Yes	Yes	Yes	Yes
Houghton in Tanzania	Yes	Yes	Yes	Yes
<b>Council for Christian Colleges &amp; Universities</b>				
American Studies Program (Washington, DC)	Yes	Yes	No	No
China Studies	Yes	Yes	No	No
Contemporary Music Center	Yes	Yes	No	No
LAFilm Studies(Los Angeles)	Yes	Yes	No	No
Latin American Studies Program (Costa Rica)	Yes	Yes	No	No
Middle East Studies Program	Yes	Yes	No	No
Oxford Summer School	Yes	Yes	No	No
<b>Affiliated Programs</b>				
AuSable Institute of Environmental Studies	Yes	Yes	No	No
EduVenture (Indonesia Papua New Guinea)	Yes	Yes	No	No
International Business Institute	Yes	Yes	No	No
Medical Technology (Robert Packer Hospital)	Yes	Yes	No	No
Rochester Area Colleges	No	Yes	NA	No
TIMO (Training in Ministry Outreach)	Yes	Yes	No	No
WNY College Consortium	No	Yes	NA	No
<b>Others*</b>				
BCA Study Abroad	No	No	No	No
Budapest Semester in Mathematics	No	No	No	No
Center for Cross-Cultural Studies	No	No	No	No
Central College Abroad (IA)	No	No	No	No
Christian College Consortium Visitor	No	No	No	No
Daystar University - Kenya	No	No	No	No
Jerusalem University College	No	No	No	No
Laval Language Institute (QB)	No	No	No	No
Trinity Christian (Seville, Spain)	No	No	No	No

\*For information about programs not affiliated with Houghton College, please consult with the Off-Campus Programs or Academic Records Office.



# P.A.C.E. Adult Degree Completion Program

## Program for Accelerating College Education - (BS in Management)

**Associate Dean of Adult and Distance Education:** Katherine A. Buvoltz

**Web site:** [www.houghton.edu/pace](http://www.houghton.edu/pace)

**Phone:** 716.674.6363

Houghton College offers an adult degree completion program leading to a bachelor of science degree in Management in West Seneca, Olean, Arcade, Jamestown, Dansville and Williamsville, with possible other sites in the future. Known by the acronym P.A.C.E. (Program for Accelerating College Education), this program serves those who have 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 about two years of college. The degree, which can be completed in about 17 months, has three major requirements:

- a. Transfer of approximately 64 semester hours from approved institutions to Houghton College.
- b. Completion of all non-core credit requirements as determined after initial transcript review (up to 24 hours of credit).
- c. Completion of an advanced-level, interdisciplinary core of 37 semester hours, comprised of 12, three-hour courses and a one-credit hour workshop series.

(Note: The combination of transfer credit and non-core credit must provide a minimum of 87 semester hours for completion of degree requirements. Students with fewer total hours may take additional courses at Houghton or elsewhere, or may pursue DSST or experiential learning credits.)

**Gen. Ed. minima:** Certain minimum general education requirements for the program must also be met as part of the non-core credit requirements. These general education requirements are:

### *Minimum hours*

Religion and philosophy.....	6
Communication (written and spoken).....	6
Humanities and social science .....	*18
Mathematics/computer science.....	3
Science .....	3
Total.....	36

*\*at least 6 hours in humanities and 3 in social sciences, but no more than 6 hours in any one discipline*

The adult degree completion program is conducted year-round. Each core course is taken over five weeks, meeting one evening per week, with four courses combining to make a 20-week term (different from the regular college semester). Students are considered full-time and eligible to apply for federal and state financial aid and student loans.

## COURSE DESCRIPTIONS

### TERM I

#### ADC 321 **Adult Development**

(3)

Overview of adulthood in context of life span, including biological change, cognitive characteristics, personality and moral reasoning. Also addresses issues of gender, interpersonal relations, ethnicity, aging and impact of theory on organizational development.

#### ADC 201 **Discovery and Practice of Academic Learning** (Pass/Fail)

(1)

Mandatory workshop that informs and prepares students to maintain their course of study in P.A.C.E. while teaching them how to become successful adult learners. Students are introduced to the Houghton campus and its services, while learning the value of a Christian liberal arts education. Key factors include the importance of critical thinking and insight into adult learning theories. Emphasis will be placed on self-directed learning as it relates to the program and beyond. Students also learn how to avoid plagiarism by utilizing database research methods and APA citation sources. Opportunities for reflection, based on completion of Adult Development and content of the workshop, lead to a purpose statement and goal-setting exercise that integrates with the Portfolio process.

#### ADC 322 **Business Writing**

(3)

Emphasis on improving ability to communicate effectively through writing, identification of audience and purpose, clear reasoning and rational organization, suitable wording and effective rewriting.

#### ADC 323 **Work Team Dynamics**

(3)

Focus on dynamic processes affecting task-oriented work groups, including formation, development, maturity and effectiveness. Addresses goals, interactions, problem recognition, interventions and team meetings.

#### ADC 325 **Presentational Speaking**

(3)

Performance course involving the preparation, delivery and evaluation of presentations commonly required in an organizational setting, including both informative and persuasive presentations. Emphasis on the process of communication, audience analysis, message content and structure, and extemporaneous delivery. The goal is developing confidence and competence as a public speaker.

### TERM II

#### ADC 440 **Fundamentals of Management**

(3)

Effective reasoning and decision-making for organizational managers. Assessment and development of individual managerial competencies, involving leadership styles, ethical perspectives, problem solving, stating goals and objectives, and strategic and tactical planning.

#### ADC 441 **Worldviews at Work**

(3)

Provides managers and other workers with an enhanced understanding of the way in which worldviews, in particular a person's basic faith commitments, impact the workplace, and vice versa. It is an introduction to the relationship between religion and the culture of organizations, and as such is designed to help one identify and begin to reflect (or extend reflections) on the relevant issues.

#### ADC 442 **Human Resources Management**

(3)

Perspectives on traditional, current and emerging practices in human resources management, including matters related to economics, law, psychology, sociology, and programs and policies used in employee management.

#### ADC 451 **Quantitative Decision Making**

(3)

Statistics as a tool in solving real-world problems, including organizing data, using models for predictions, constructing simple graphics; use of logic and reasoning in drawing conclusions and making recommendations. Emphasis on process improvement and decision making.

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### **TERM III**

#### **ADC 450 Personal and Professional Ethics**

(3)

Focuses on ethical theories and specific moral issues in the workplace. Includes small group analyses of selected cases and applicable principles.

#### **ADC 444 Accounting and Finance for Non-Financial Managers**

(3)

Introduction to accounting and finance concepts, including cost control, understanding and analyses of financial statements, budgeting, working capital management and financing alternatives.

#### **ADC 453 Diversity in the Workplace**

(3)

Sociological approach to examining workplace diversity, stratification, stereotyping and misunderstandings, including matters related to culture, gender, ethnicity and race. Emphasis on contemporary issues and problem solving.

#### **ADC 454 Organizational Development**

(3)

Development of theory and innovative practice relevant to leadership and organizational change. Major topics include change processes within organizations, intervention strategies in organizations to improve their effectiveness, studies of such interventions, the roles of change agents, and problems of self-awareness, responsibility and the political consequences of organizational development theory and practice.

### **Additional PACE Course Offerings**

#### **ADC 155 Computer Applications & Issues**

(3)

Introduction to personal computer and Microsoft Office applications including spreadsheet, word processing, presentation, and database software. Students work on real business computing projects. Discussion of current issues in computing.

#### **ADC 209 Introduction to Christianity**

(3)

An introductory survey of the main beliefs and practices that constitute the Christian tradition. Christianity will be approached in a way that overcomes the traditional division between doctrine and practice. The Biblical, theological, historical, ethical and spiritually formative aspects of the Christian faith will be explored. The course aims to help the student to develop a personal theology and life perspective that is informed by Christian faith and Christian spirituality.

#### **ADC 211 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.

#### **ADC 213 Masterworks of Sight and Sound**

(3)

This course is a survey of art and music in western culture from the late gothic period through modern times. We will be looking at major monuments of art, architecture and music.

#### **ADC 217/PSY 218 Social Psychology**

(3)

Social behavior from a sociological and psychological perspective, examining the interaction of behaviors of individuals in groups. Topics: prejudice, group processes, leadership, conformity, attitudes, change. Community: Psychology.

#### **ADC 218 Marketing Principles**

(3)

An overview of consumer behavior and strategies related to product development, pricing, promotion and distribution of consumer and business products and services, in both domestic and international markets.

#### **ADC 224 The Birth and Maturation of Western Culture**

(3)

A connected narrative of western culture from ancient Greece to the present. This course surveys the birth and maturation of Western Culture from the Bronze Age through the Renaissance and Reformation. While highlighting key people, places, and events, will examine such important general issues as church and state, public versus private interest, human identity, human capacity, and worldview construction.

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**ADC 225 Western Culture in the Age of Science** (3)

A connected narrative of western culture from ancient Greece to the 20th century. Highlighting key people, places and events, will examine such issues as church and state, public versus private interest, human identity and worldview construction. Will examine each period by weaving literature and philosophy into the fabric of history. Using these elements, will examine the worldviews that have characterized the past and equip participants to evaluate critically the worldview options available.

**ADC/PSY 301 Psychology of Personality** (3)

Description, development, dynamics, determinants and assessment of the normal personality. Emphasis on contemporary theories and research.

**ADC/BADM 311 Employment Law** (3)

A conceptual and functional analysis of the legal framework and principles of industrial and employment relations with special emphasis on discrimination based on race, sex, age, and disability; testing and performance appraisal; wrongful discharge; labor/management issues; and employee benefits.

**ADC/BADM 312 Advertising Principles** (3)

Overview of the advertising field and how it functions in society. Studies research, strategies, methods, creativity, and media planning. Typically includes case study. Prerequisite: ADC 218

**ADC/BADM 319 Marketing Research** (3)

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. Prerequisite: ADC 218.

**ADC/BADM 320 Leadership Development** (3)

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

**ADC/PSY 330 Conflict Management** (3)

An introduction to conflict management that balances coverage of major theories with practice in communication skills and conflict intervention techniques (e.g. assertiveness training, mediation, negotiation). Focus on experiential learning, with heavy emphasis on written analysis that includes analytical journaling and analysis of scientific journal articles. Prerequisite: ADC 311

**ADC/BADM 425 Business Ethics** (3)

Ethics-related aspects of the business decision-making process. Students will address a variety of topics, including theoretical underpinnings of ethics, stakeholders, decision-making strategies, and utilization of such strategies in specific areas such as shareholder and employment relations, marketing, and globalization. The emphases of the course are issue recognition, application of ethical principles, and analysis of the consistency of corporate decision-making process with such principles.

**ADC/BADM 446 Staffing and Performance Management** (3)

Examination of recruiting, selection, and performance appraisal and an understanding of all facets of performance management including training and development, developing reward systems, performance measurement, equal employment practices, counseling and promotion processes. Discussions will also include strategies to recruit, retain and develop a diverse workforce. Prerequisite: ADC 311.

**ADC/BADM 448 Employee Training and Development** (3)

An examination of employee training and human resource development in various organizations. Topics include the development, administration, and evaluation of training programs; employee development; career development; and organizational change. Issues in employee development (including assessment of employee competencies, opportunities for learning and growth, and the roles of managers in employee development) are explored. Prerequisite: ADC 311.

ADC/BADM 449 **Employee Relations** (3)  
Survey of the collective bargaining system in the U.S. The development of managerial approaches is provided to achieve labor-management cooperation, negotiations between management and employees' organizations, the nature and significance of collective bargaining, procedures of collective bargaining, bargaining issues, contract administration, current practices and the future directions of unions. Prerequisite: ADC 311.

**Minors**  
**Human Resource Management**

- ADC 311 Employment Law
- ADC 330 Conflict Management *or* ADC 449 Employee Relations (prerequisite: ADC 311)
- ADC 425 Business Ethics
- ADC 446 Performance Management *or* ADC 448 Employee Training and Development (prerequisite: ADC 311)

**Leadership**

- ADC 218 Social Psychology *or* ADC 301 Psychology of Personality
- ADC 320 Leadership Development
- ADC 330 Conflict Management
- ADC 425 Business Ethics

**Marketing**

- ADC 218 Marketing Principles
- ADC 312 Advertising (prerequisite: ADC 218)
- ADC 319 Market Research (prerequisite: ADC 218)
- ADC 425 Business Ethics

**P.A.C.E. Financial Information**

Costs for the current academic year (cohorts which begin June 1, 2010 to May 31, 2011):

Application fee.....	\$25
Enrollment deposit.....	\$100
Tuition per term (12 credit hours).....	\$7, 184
Tuition for program (36 credit hours).....	\$21, 552
* OPTIONS courses.....	\$0 or \$585
Experiential learning credits, per credit hour awarded .....	\$50
DSST (per test).....	\$80
DSST (per credit hour awarded).....	\$35

\*A fully-matriculated student in the core P.A.C.E. program may take four OPTION courses at no additional charge. You will accrue the “free” courses at a rate of one each during the first two terms and two during the third term. Should you get ahead of this schedule, you will be liable for the cost of the courses, should you not complete eligibility requirements.

Tuition for the P.A.C.E. program is billed in three installments at the beginning of each P.A.C.E. term. Payment is due in full at the beginning of each term unless an alternate payment plan has been arranged in advance. Each P.A.C.E. student completes a payment plan form prior to entering the program.

Students who are eligible for employer reimbursement may be able to defer payment until tuition reimbursement is received.

Tuition covers the use of textbooks, supplemental readings, software and the computer lab. The replacement cost of any unreturned or abused textbooks or materials will be charged to the student’s account.

Students are required to have access to a computer with certain specifications for continuous use throughout the program. Contact the P.A.C.E. office for the required specifications.

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## **Financial Aid for P.A.C.E.**

### **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 for New York State residents 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 2010-11 academic year is \$2,775 per term.

### **Federal Direct Loan**

Interest rate is fixed and the current interest rate can be found at <http://www.studentaid.ed.gov/PORTALS-WebApp/students/english/studentloans.jsp>. If the student is not a previous borrower in repayment who has already used the six-month grace period, interest and principal repayment is delayed until six months after the program is completed.

### **Federal Unsubsidized Direct 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.

### **New York State Tuition Assistance Program**

New York State's Tuition Assistance Program (TAP) is a state-funded entitlement program for New York State residents. Grants are based on the New York net taxable income of the preceding year.

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

A copy of the worksheet used for refund calculation can be requested from the Student Financial Services Office.

### **Houghton College Aid**

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

### **Policy for Return of Title IV Funds**

Houghton College's refund policy is in accordance with the U.S. Department of Education's regulations. The policy applies to all P.A.C.E. students who do not complete the enrollment period for which he or she has been charged.

The term "Title IV Funds" refers to the Federal financial aid programs authorized under the Higher Education Act of 1965 (as amended) and includes the following programs: Federal Family Educational Loan Programs (Federal Direct; subsidized and unsubsidized) and Federal Pell Grants.

A student's withdrawal date is the date the student began the institution's withdrawal process or officially notified the institution of intent to withdraw or the student's last date of attendance.

Refunds will be prorated on a *per diem* basis based on the academic calendar. Students withdrawing before the academic period begins will receive a 100 percent refund of charges. A copy of the worksheet used for the refund calculation can be requested from the Student Financial Services Office.

Title IV aid and any institutional aid is earned in a prorated manner on a *per diem* basis based on the academic calendar. A copy of the worksheet used for the Title IV refund calculation can be requested from the Student Financial Services Office.

In accordance with federal regulations, when financial aid is involved, refunds are allocated in the following order: unsubsidized Direct Loans, subsidized Direct Loans, Federal Pell Grants, other federal sources of aid, other state, private and institutional aid, and finally the student. The policy listed above supersedes those previously published and is subject to change at any time.





## Student Life

Houghton College “prepares students to live and lead as change agents in our world.” How exactly does this take place? As conceived historically, a liberal education occurs both inside and outside the classroom. At Houghton College, faith and character development are foundational to this process. Our community of faith and learning includes supporting, celebrating and sharpening one another. The Houghton College experience is one of academic challenge, spiritual vitality and interpersonal connectedness. The typical Houghton student studies hard but also serves, gets involved in extracurricular campus activities, participates in intramural sports and forms lifelong friendships through clubs, athletic teams, fine arts performances and residential living. The members of the Department of Student Life encourage this comprehensive student experience through educationally purposeful programming and serve alongside students as we continue to become the persons God created us to be. As students live, learn, grow, play, participate and pursue vocational calling, it is our hope that they become truly liberally educated.

### RESIDENCE LIFE

Houghton College is a distinctively residential community. Most students, faculty, and staff live, learn, work, and worship within the tranquil setting of the village of Houghton. The residence life experience is a significant and integral aspect of the educational process. Residence life, together with classroom, chapel, co-curricular activities and general campus interaction, provides an immediate setting for students to examine new or different perspectives, ideas and attitudes. A successful residence hall experience is often closely related to a student’s attitude and willingness to learn.

The responsibility of the staff in each residence hall is to help create an environment conducive to the educational, spiritual, social, physical and emotional development of its resident students. Each hall’s resident director (RD) oversees and coordinates student activities, student conduct, and living conditions. A student resident assistant (RA) lives on each wing or floor and serves as a peer leader and guide for each living unit. A leadership council provides additional programming in each hall and in upper-class housing.

While residence hall staff members strive to provide the best living environment possible for our students, continuing and maximum student growth depends ultimately on the individual’s willingness to accept responsibility and participate in the residence hall community. Through the efforts of students and staff, the college’s goal of integrating faith, learning, and living can become a reality in individual lives.

All students are required to live in a college residence. All first- and second-year students, as well as some juniors and seniors, live in our four traditional residence halls. Houghton also endeavors to provide more flexible options for upper-class students. Depending on enrollment patterns, in certain years some of the residence halls may feature special upper-class floors with additional visitation and cooking privileges. Juniors and seniors are also eligible to apply for one of three other housing options: a townhouse, which has seven or eight students sharing a four-bedroom townhouse with full kitchen facilities; a two-bedroom apartment in a college-owned complex, each apartment housing four students; or a Community Living Option (CLO) which permits a student to privately rent a room or apartment within the village of Houghton. CLO’s are granted on a very limited basis, primarily to senior students, based upon projected enrollments. Additionally, some upper-class students reside in the residence halls. Local or married students may elect to commute from home.

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## SPIRITUAL LIFE

Knowing God and seeking His will for our lives will pave the way for a life of service. The classroom, Bible study groups, our mentoring program, outreach teams and informal conversations combine to build relationships as we strive to “spur one another on toward love and service” (Hebrews 10:24).

**Chapel** meets Mondays, Wednesdays and Fridays from 10:15-10:55 a.m. unless otherwise noted. The operating premise for chapel is to provide a biblically-based service of worship in which students are encouraged to become more like Christ in attitude, character, motivation and perspective on life. Those participating in chapel include faculty, staff, students, off-campus speakers, worship teams and college choirs/ensembles. Chapel includes worship through music and song, biblical exposition, personal testimony, missions, church and college heritage. Chapel is required as a commitment made by each student to enhance the building of “community.”

Regular **church attendance** and participation in a local congregation are strongly encouraged.

**Christian Life Emphasis Week (CLEW)** is a cooperative program of spiritual enrichment offered by Houghton College and the Houghton Wesleyan Church. At the beginning of the fall semester, CLEW services are held during the evenings as well as during the regularly scheduled chapel services. In the Spring PRAXIS challenges the campus to examine specific ways of putting their faith into practice. Campus and guest speakers, seminars, panel discussions and other venues all focus on the theme for the year. CLEW and PRAXIS are intended to foster spiritual renewal within the student body, faculty, staff and administration and to draw all to Houghton College's purpose of education in the service of the Kingdom of God.

Sunday evening **Koinonia** is a service of worship and prayer held at Wesley Chapel. Student worship bands lead this ministry under the direction of the Houghton church's assistant pastor and the college's ministry team coordinator.

**Outreach Ministries** include the Allegany County Outreach (ACO), Mime Team (Impressions), Evangelicals for Social Action (ESA), Global Christian Fellowship (GCF), Habitat for Humanity, and Youth for Christ. These student-run organizations are designed to provide students with opportunities to apply their faith through service to the church and community.

## STUDENT HEALTH SERVICES

The mission of the Student Health Center (SHC) includes the treatment of illnesses and injuries, and the promotion of health and wellness in an environment that reflects the love and compassion of Christ.

### Location

The SHC is conveniently located in the lower level of Gillette Residence Hall and can be accessed from the parking lot next to the Campus Center. It is staffed by registered nurses and an on-site physician and is open Monday through Friday, 8:30 a.m. to 5 p.m.

### Services

Services available at the Health Center include unlimited access to our nursing staff while the SHC is open for the assessment and treatment of minor illnesses and injuries. Allergy injections, administration of immunizations, phlebotomy, and daily medication delivery from the local pharmacy are also part of the services offered at the Health Center. Appointments can be made with the college physician as needed following a nursing evaluation. Same day appointments can usually be accommodated. All onsite nursing and physician services (with the exception of admission physicals) are covered through an annual health fee. Charges for medications, laboratory testing, radiology and other ancillary or off-site services are billed to the student's insurance company by the providing facilities, and fees, for those services, therefore, may apply, according to the terms outlined in an individual's insurance plan. Referrals are made to local physicians, area specialists, or ER/hospitals as needed.

### After Hours

When the SHC is closed, students with emergent health needs should contact 911. If the issue is not life threatening, questions should be directed to Residence Life Staff (RA, RD) who have a list of contacts that can be used if needed to assist in decision making.

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## Insurance Policy

Houghton College requires that all students taking at least 12 hours of credit provide proof of health insurance coverage. The college makes a reasonably priced, limited benefit Accident and Illness Policy available to students who do not have insurance coverage otherwise. The college program operates under an “opt out” policy, meaning that students will be automatically enrolled in the college negotiated plan (and the charge for such will be applied to their student account) *unless* they submit a waiver providing information regarding alternate insurance coverage. Because a person’s insurance coverage may change periodically, a waiver must be submitted *each year* before matriculation can occur. The college accident insurance is mandatory for all intercollegiate athletes and is an option for all other students. The Health Center staff is available to answer questions and to assist in the filing of claims if needed.

## Medical Leave

If a student has a medical condition (physical or psychological) that interferes with that student’s ability to perform academically, or if that student’s behavior/condition is such that other students are being hindered in their academic/living environment, a medical leave from the college may be granted. Such leave is granted by the dean of students. This is not a disciplinary action, and students given medical leave are encouraged to return to the college to continue their studies as soon as they are able to do so. An evaluation may be required to ascertain whether the behaviors/conditions that warranted the granting of the leave have been sufficiently addressed.

## Immunization Requirements

In keeping with New York State’s stringent Public Health Law, all students are required to provide documented proof of immunization (2 doses of vaccine) or immunity (by blood work) to measles, mumps and rubella. In addition, state law requires that a waiver form be completed in regard to the meningococcal vaccine indicating a specific choice to either receive or decline the immunization. The Health Center strongly recommends that students living in the dormitories receive this vaccine. TB testing and an up-to-date tetanus/diphtheria immunization are also required. Hepatitis B immunization is recommended. In addition to the immunization records, an admission physical/health form is required to be submitted prior to the beginning of classes. Failure to meet these requirements may result in being restricted from attending classes.

The Student Health Center staff desires to help students in any way possible in order to support them during their time here at Houghton. We hope that students who have health concerns will feel free to come by and speak with us. It is a privilege to serve students in this place and we always appreciate suggestions as to how we can do it better.

## CAREER SERVICES

The office of 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 the office of Career Services seeks to provide the following:

### Career Counseling

The knowledge of one’s personal values, goals, skills, interests and personality is fundamental to any wise career choice. Whether selecting courses for a semester, choosing a major, or deciding on a career path, self-awareness is critical. Through a variety of testing instruments and interviews, students are encouraged to expand their vision of career by considering their relationship with God, family, Christian-community and society at large. Practice in making decisions is emphasized.

### Career Guidance

An understanding of the world of work is essential for finding a place where an individual’s knowledge and gifts can be used. The office of Career Services provides resource materials of career information, internships and summer opportunities, plus information regarding graduate and professional schools. In addition, the office of Career Services homepage provides links to career planning sites on the Internet.

### Job Search Resources

The office of 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

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Alumni Office regarding resume referrals are some of the ways students registered with the office of Career and Life Planning are informed of employment possibilities. The office of Career and Life Planning homepage is another tool students use to locate employment opportunities. Houghton College has partnered with *Monstertrak.com* to provide our students and prospective employers with an electronic meeting place.

### **Job Search Preparation**

Learning how to write resumes, application letters and graduate school essays, along with learning to prepare for an interview and how to conduct an effective job search are important skills that require expertise and practice. The office of Career Services provides workshops and skills training in these areas.

### **Consultation and Networks**

The Career Services coordinator serves as a resource person to faculty for classroom presentations and academic advising. Additionally, the coordinator is an active member of the Niagara Frontier College Placement Association, a professional group of career counselors in western New York, which sponsors career fairs for their students and alumni.

## **COUNSELING SERVICES**

The Counseling Center provides personal counseling to all students desiring these services. Counseling is a growth process that can be beneficial to most students at some time during their college experience. Students come to counseling with many different issues for discussion. Typical comments presented in counseling are:

- “...I seem to be able to make friends easily enough...I just don’t seem to be able to keep them.”
- “...I’m down an awful lot...no energy or motivation...just can’t seem to get anything done.”
- “...Things at home aren’t going so well. It’s stressing me out and I’m not handling it very well.”
- “...I think I love him (or her), but I’ve thought that before. How can you be sure?”
- “...I’m trying to be more independent, but that’s causing problems at home and with some of my friends.”
- “...Since we’ve broken up I can’t seem to get back into anything. I can’t get on the top of this.”
- “...I’m bothered by my attitude toward food and my eating habits...do I have an eating disorder?”
- “...I’m having some doubts about my Christian faith.... God seems nowhere these days”
- “...I’m anxious and stressed a lot lately....I think I’ve even had some panic attacks... anything I can do?”

Perhaps you have said similar things but haven’t thought of stopping by to discuss these with a counselor. One or two conversations may enable you to face these issues more effectively.

At times events from the past can result in 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 Counseling Center staff is interested in helping you with these concerns. The Center also has a consulting psychiatrist on campus one day each month to provide psychiatric evaluation, medication, follow-up and consultation services.

Finally, the Counseling Center provides group experiences for addressing 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. Appointments can be made to meet with a counselor by visiting the Center located on the first floor of the Campus Center. All counseling information is confidential and will not be used without your consent.

## **INTERCULTURAL STUDENT PROGRAMS**

The Intercultural Student Programs Office exists to enhance Houghton’s goal of becoming a globally engaged community by providing cross-cultural experiences, diverse student programs, and culturally educational activities for Houghton students and community. Activities often include trips to cross cultural churches, culture nights in Java 101, coffeehouses, heritage celebrations, panel discussions, and other cultural activities. One of the primary goals of the Intercultural Student Programs Office is to work closely with our international students, third culture kids (TCKs), and minority students in order to make sure they have a successful and enjoyable Houghton experience. It is our desire to serve these intercultural students by anticipating their unique needs, serving as an advocate and a resource around campus, being a place of support and encouragement, planning fun and useful activities, and providing any other missing links. Some important

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activities and events that Intercultural Student Programs coordinates for these students includes the Transition Orientation Program, the Host Family Program, help getting a New York state driver's license, visa assistance, and other activities. For more information please contact the Director of Intercultural Student Programs at ext.5570 (585.567.9557) or visit in person in the basement of the Campus Center.

### **STUDENT PROGRAMS AND ACTIVITIES**

Exploring, competing, serving, playing, climbing and worshipping: students in Houghton's unique setting augment their central educational experience through participation in a vibrant community life. The Student Programs Office seeks to enrich the student experience through a varied program of activities. Some of our activities encourage service, some contribute to the educational mission of Houghton College and others are for pure fun. Students have the opportunity to cultivate their leadership skills, to participate in cultural, athletic, co-curricular and spiritual programs and to join or lead one of 30+ campus clubs and organizations (see below). In addition to a wide variety of campus activities, Houghton's 1300 acres of woodland offers rich opportunities for exploring on horseback, cross-country skis and hiking trails. Our ropes and initiatives course is used for physical education, leadership development and draws visitors from around Western New York.

Our rural location both contributes to and necessitates one of the greatest distinctives of our students' experience - a dynamic, residential campus community. It is the goal of the Student Programs Office to offer and oversee a comprehensive and vibrant array of activities and opportunities which reflect the ethos of our academic community.

#### **Campus Activities Board (a division of SGA)**

Works with the Director of Student Programs to provide a wide array of quality on-campus entertainment reflecting the Christian character and geographic setting of our community.

#### **Campus Center**

The recently renovated Van Dyk Lounge is first and foremost for the use and enjoyment of Houghton College students, employees, and alumni. The Campus Center Recreation Room has foosball games, pool, and table tennis that are available for college student use.

#### **Clubs and Organizations**

While academic excellence is emphasized at Houghton, we realize the importance of students being involved in activities to complement their classroom education. Clubs and organizations provide opportunities for students to explore their interests and to take leadership roles. By being involved in co-curricular activities, students begin to clarify career goals and to understand how their education can be translated into action.

#### **Student Government Association (SGA)**

The SGA, under the leadership of its officers and through its various working committees, provides an opportunity for students to become directly involved in campus decision making. In addition, its members attempt to resolve campus problems and serve as a communication channel between student organizations and faculty, staff, and administration. The Student Government Association creates an atmosphere for the discussion of campus issues and programs that contribute to the growth of each member of the student body.

#### **Student Clubs and Organizations**

**American Choral Directors Association (ACDA)** - works to promote choral singing and helps to organize the development of choral groups of all types in schools, churches, and on campus.

**Allegany County Outreach (ACO)** - provides opportunities for students to share the love of our Savior Jesus Christ with children from throughout our county through establishing and maintaining friendships. The "big brother/ big sister" program is designed to foster relationships between college students and the children of Allegany County. This program includes group events and parties as well as one-on-one involvement of students with their little "brothers" and "sisters." College facilities and cultural events are also available through invitations to eat together on campus and attend athletic events, plays, and religious programs.

**Artist's Guild** - fosters an appreciation of the visual arts and their effect on our lives through use of the Chapel Gallery, art displayed in JAVA 101, museum excursions, film showings, and communication with local artists.

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## **Campus Activities Board (CAB)**

**Climbing Club** - provides a safe, Christ-oriented atmosphere where climbing, leadership, encouragement and hard skills are developed and promoted both in the gym and off-campus trips.

**The Drawing Board** - provides Houghton College students with a unique creative outlet in which contributors express themselves through the medium of comics.

**The Environmental Club**- works to encourage awareness and action on campus for environmental issues.

**Equestrian Society** - The purpose of this society is to create a Christian environment in which equestrian students work together to increase public awareness of their program and its services and to enhance opportunities for students and community members.

**Evangelicals for Social Action (ESA)** – This group seeks to raise awareness about social justice issues around the world and to provide opportunities for people to make a difference.

**Gadfly Society** - aims to provide a forum for voluntary co-curricular endeavors of interest to philosophy majors, minors and other philosophically-minded persons and to promote awareness of the relevance of philosophical perspectives to issues.

**Global Christian Fellowship** - GCF'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.

**Gospel Choir** – enriches our campus through helping student express our Christian heritage through multicultural fellowship, celebrating the richness of gospel music. Our purpose is not geared only toward entertainment, but it is to expose the student body, faculty, and staff to this style of worship and praise.

**Helping Houghton Seniors (H2S)** - The purpose of H2S is to bridge the gap between Houghton students and the Houghton elderly by building relationships and serving.

**Heritage Club** – enriches the campus through providing programming to celebrate cultures represented on campus.

**Impressions Mime Team** - The purpose of the mime team is to serve as ministers of the gospel through the expression of mime and to reach out to encourage the community; to encourage and edify the church and share the gospel with the unsaved.

**Imitators of Christ** - promotes nurturing relationships between students and community members for the spiritual growth of those involved.

**Intercultural Student Association (ISA)** - promotes cultural awareness on campus and aids in the cultural adjustment of international students, third-culture kids and American-born minorities.

**MercySeat Ministries** - In submission to the Holy Spirit and the Word of God, Mercyseat ministries seeks to encourage people to passionately pursue God both corporately and individually.

**Music Educators Club** - acquaints students with the rewards and challenges of music and its teaching in contemporary society and provides information, resources, and exposure to students for professional expertise.

**Paddle Sports** - seeks to provide recreational opportunities for students that will enhance their college experience.

**Psi Chi** - a psychology honor society that provides students with learning experiences, work opportunities and summer opportunities in the field of psychology and encourages students to view psychology with a Christian perspective.

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**Psychology Club** - Seeks to encourage students to integrate psychology and the Christian faith, provide learning experiences that will be educationally illuminating, and help prepare students for a future in psychology.

**Gold Bar Club (ROTC)** - Houghton College Army ROTC is dedicated to training the future leaders of the United States Army as well as training good leaders for Christian service. Army Reserve Officer Training Corp (ROTC) is open to all Houghton College students without a commitment to the US Army for the first two years. After two years (Junior academic status) it is necessary to make a decision whether or not to serve in the US Army.

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

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

**Sigma Zeta** - a math and science honor society that encourages and fosters the attainment of knowledge in the natural and computer sciences and mathematics and recognizes the attainment of high scholarship among those in membership.

**Ski Club** - provides opportunities to novice and experienced skiers throughout western New York.

**Society for Human Resource Management-Houghton College Chapter** - The purposes of the chapter are: a) to provide students with the opportunity to gain knowledge and insight into the effective management of personnel in the field of Human Resource Management through affiliation with the Niagara Frontier Chapter of SHRM and the National SHRM organization.

**Sociology Club** - is an association open to any student who is interested in sociology. It provides learning experiences, service opportunities, and informs students of career opportunities and summer opportunities in the field of sociology.

**Swim Club** - This club exists to gather swimmers together for Christian fellowship and to develop discipline, a team mentality and communication skills.

**Teachers for Today and Tomorrow (TOTT)** - as scholar-servants we aim to share God's love by building a support system within the local education community to inform current and future education students about the rewards and challenges of the teaching profession.

**Tennis Club** - stimulates interest and awareness of the game of tennis while teaching skills necessary to the tennis player's repertoire.

**Theological Society** - This is a forum to develop discussion of topics related to Christian belief and practice, and its purpose is to encourage students to think more deeply about the significance of the Christian conception of reality for their vocation or ministry.

**Youth for Christ** - works to communicate the life-changing message of Christ to every young person in the county through a program of evangelism with the intent to bring the spiritual salvation of Jesus Christ to the youth of the Southern Tier area and to encourage and foster spiritual growth in the tenets of Christianity. Students provide leadership, counsel and organization for Youth for Christ - Campus Life clubs.

**Young Life** - is a relational outreach to kids, with the message of love and forgiveness of Jesus Christ. Young Life is based on the idea that we, as Christians, need to go on their turf, to go where the kids are. When doing this, we attempt to build relationship with high school students (Young Life) and junior high students (Wyld-life), so that we might earn the right to be heard by them. The goal of this ministry is to introduce kids to Jesus and get them back involved in their local church.



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## Residence Halls

Gillette Leadership Council  
Lambein Leadership Council  
Rothenbuhler Leadership Council  
Shenawana Leadership Council  
FATS (Flats and Townhouses) Leadership Council

## Club Sports

Men's Baseball Club

## Publications

*Boulder* (Yearbook)  
*The Lanthorn* (Literary/Art publication)  
*STAR* (Student newspaper)

## Other Opportunities for involvement

**Artist Series** - The Houghton College Artist Series features nationally and internationally known artists, groups and productions which vary from year to year.

**College Choir** - The College Choir is composed of students chosen for musical and vocal competence by audition. Concerts are given each year, including an extended tour during spring break. The choir rehearses daily.

**Philharmonia** - The Philharmonia is made up of qualified instrumentalists. Representative selections of classical, romantic, and modern literature are performed. Membership is by audition and permission of the conductor.

**Symphonic Winds** - Symphonic Winds provides students the opportunity to perform significant symphonic band literature. Concerts are performed on and off campus. Membership is open to advanced wind and percussion players and is by audition and permission of the conductor.

## NEW STUDENT PROGRAMS

The mission of the New Student Programs Office at Houghton is to support new first-year and transfer students in their transition to becoming fully engaged members of the Houghton College learning community. Partnering collaboratively with departments across campus, orientation programs help students and their families gain the information and interpersonal support they need to be successful.

The three components of orientation at Houghton College are Spring Highlander Connections Day, Fall Orientation, and FYI (First Year Introduction), a seven-week small group experience for first-year students during their first semester on campus.

The orientation to the College begins officially with Highlander Connections Day during the Spring prior to Fall enrollment. A parallel slate of programs exists for parents and students. This day-long experience gives students the opportunity to select courses, to get to know peers and orientation leaders, to sign up for on-campus jobs, and to take care of other important business such as financial aid. After spending a day on campus at a HC Day, students and families report a sense of belonging at the College, a sense of confirmation in their choice of a college, and a sense of confidence that they will have a successful transition when classes begin in the fall.

The Fall Orientation program gives all new students and their families a chance to have the College all to themselves in the days just prior to the beginning of classes. President Mullen enjoys an opportunity to speak with the parents of our new transfer and first-year students. Parents are encouraged to stay through the New Student Dedication Program on move-in day. In addition to meeting others in their FYI groups, members of the Class of 2013 along with new transfer students will experience a day of fun in the sun at Letchworth State Park.



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FYI (First Year Introduction) is a small group experience required of all first-year students during their first seven weeks on campus. Led by a student orientation leader who is specially trained to assist first-year students in their transition to college, FYI gives students the opportunity to support one another and to engage in a local service experience.

### **SAFETY AND SECURITY**

The Houghton College Safety and Security Office is located on the first floor of the Campus Center. An officer is on duty 24 hours daily and can be reached by dialing 585.567.9333. Office hours are 8 a.m. to noon Monday through Friday on class days.

For all fire, ambulance or police emergencies, call 911.

#### **Safety and Security Mission Statement**

The Department of Safety and Security will serve our college community by promoting:

- Our mutual responsibility for campus safety
- Protection of campus property
- Program to prevent crime
- Enforcement of college policies and the law

#### **Campus Law Enforcement**

The Safety and Security personnel of Houghton College are uniformed officers, employed by the college to protect Houghton College personnel and property. These officers have the authority to require identification, issue parking citations, and sign complaints with local and state police on behalf of Houghton College. They are on duty twenty-four hours a day every day of the year.

#### **Vehicle Registration/Parking**

Student owned or operated vehicles must be registered at the Safety and Security Office as soon as they are brought to campus. A parking policy established by the Student Government Association and the Student Life Council is in effect. This policy is provided upon request or upon registering a vehicle. Vehicles without proper registration are subject to fines. Repeat offenders may have their vehicle immobilized or towed at the owner's expense. All freshman and sophomore residents are required to park in the Fire Hall parking lot on Route 19. Juniors and seniors may explore further parking options by inquiring at the Safety and Security Office.

Regular permit fees vary in price from \$30-\$150 per year. Permits are available on a per semester basis at a slightly higher per year cost. Temporary permits for the Fire Hall lot will be issued free for the first week and \$10 per week thereafter. These fees help defray the cost of parking lot maintenance.

The college does not assume liability for vehicles on college property, regardless of cause (including vandalism and parking lot conditions).

#### **Firearms, Weapons, and Fireworks**

The following items are considered weapons that must be stored in the Safety & Security Office and checked out for appropriate use:

- Any weapon powered by pump action, including any BB gun
- Any weapon powered by compressed air or CO2 cartridge including all paint ball guns
- Any firearm, including black powder weapons
- Any blowgun or similar weapon
- Any type bow (archery)
- Any Martial Arts weapon (i.e. nun-chuks, throwing stars, throwing knives, etc.)
- Any knife with a blade three (3) inches long or longer
- Any knife with a double-edged blade

Fireworks are not allowed on campus unless approved for a particular event. Students may not possess fireworks of any kind.

#### **Illegal Activity**

Policy for Reporting Criminal Actions or Other Emergencies:

Each student and employee of Houghton College is expected to promptly report any criminal actions or other emergencies to the appropriate authorities. The Campus Safety and Security Office, Houghton Volunteer Fire

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Department and Houghton College Maintenance Department, as appropriate, will take immediate action to respond.

Residence hall directors or assistants act as the point of contact for all emergencies occurring within their residence hall. Appropriate authorities will act immediately on any report of criminal action or other emergencies; will investigate, categorize, and report on each instance; and will involve outside police agencies as appropriate.

### **Skateboarding and In-line Skating**

Houghton College takes the position that sidewalks are intended for pedestrians, to include foot traffic, wheelchairs, and other items used by the disabled to facilitate their mobility. All other use is secondary and must yield immediately to pedestrian use.

While it is permissible to use alternate, non-motorized forms of transportation (such as scooters, bicycles, inline skates, and skateboards), the following expectations must be observed:

- You must yield to and get out of the way of pedestrians (including getting off the sidewalk if a group is walking your direction).
- When there is heavy pedestrian traffic, no other use of the sidewalks is permissible.
- Under no circumstances is it acceptable to practice stunts or tricks on sidewalks. Houghton College will occasionally allow trick riding in limited areas such as parking lots, but this is not a guarantee, nor should it be expected.
- No alternate forms of transportation are ever acceptable inside college buildings.
- Failure to abide by these expectations may result in disciplinary proceedings through the Student Life Office.

### **Building Hours**

Pertinent building hours follow:

Campus Center is open 5:30 a.m. until 3:00 a.m. Academic buildings (Science, Chamberlain Center, Music, Stevens Art Studio, and Physical Education Center) are open 7:00 a.m. till midnight Monday through Saturday. Stevens Art Studio, the Center for Fine Arts, and the Physical Education Center also have limited Sunday hours. The above hours are maintained when the college is in session. During breaks, these facilities will have limited hours if they are open at all.

### **Securing Personal Belongings**

Students are encouraged to keep valuables on their person or locked away at all times. Over 90% of thefts at Houghton are the result of valuables being left unattended. To minimize the risk of theft, keep student residences locked when unoccupied.

Students are strongly encouraged to check their parents' homeowner's insurance policy to confirm that their belongings are covered at college. This is usually a relatively inexpensive rider. College insurance covers only college property.

## **STUDENT LIFE POLICIES**

For a complete listing of Student Life Policies see the Student Guide at:

[http://campus.houghton.edu/orgs/student\\_life/Student%20Guide%202009-2010.pdf](http://campus.houghton.edu/orgs/student_life/Student%20Guide%202009-2010.pdf)





# Campus Information

## Buildings and Facilities

**John and Charles Wesley Chapel** - The 1,200-seat auditorium, which was renovated in 2006, serves as the worship center and public meeting place for the campus. This facility also houses classrooms, practice rooms, Presser Recital Hall and the Marjorie Paine Memorial Prayer Room. Special features include the 47-stop Holtkamp organ designed and built for this auditorium with its 3,153 pipes in 61 ranks and the Ortlip mural, "Redemption," in the foyer.

**Luckey Memorial Building** - Built with native stone and completed in 1942, this building stands at the head of the campus quadrangle and faces the historic Genesee River. It houses college offices for the president, academic deans, academic records, finance, human resources, student financial services, payroll and administrative services.

**Fancher Hall** - A community landmark built in 1905, this facility was restored and renovated in 1978-79 and was moved to the site of the former Gaoyadeo dormitory in 1987. It houses the offices of admission, alumni, advancement, public relations and church relations.

**Willard J. Houghton Library** - Originally constructed in 1964 and renovated in 2000, the library offers holdings of approximately 255,000 volumes, 325 print magazine and journal subscriptions. A separate branch of the library in the Center for the Arts holds the music score and sound recording collections. The main building also houses the Wesleyana/Gunsalus special collection and the college archives. The library is furnished with a variety of seating areas to facilitate both individual and group research and study. Research help is available at the library and electronically through the library web page. The library's online catalog, as well as electronic databases including ProQuest, FirstSearch, EBSCOhost, JSTOR, and BioOne, are accessible via the Web. Subscriptions to these services provide access to over 27,000 online magazines and journals in electronic full text. The 13,000 square foot third floor of the library, which was added in 2006, provides additional classroom and office space. The third floor is connected to the Chamberlain Center with a covered, elevated bridge.

**Campus Center** - At the heart of campus life is this 75,000-square-foot building built in 1972. The main floor contains the Campus Store; Community Bank, NA branch; offices for student life, career and counseling services; safety and security; college information and a large lounge, renovated in 2007. Second floor: kitchen, self-service areas, main dining room and private dining rooms. Basement: campus mailroom; student government offices; Big Al's snack shop with college network connections at each booth; student publications and outreach offices; recreation room for ping-pong tables; and a coffee shop, Java 101.

**Chamberlain Academic Center** - Constructed in 1989, this 49,000-square-foot, four-story building houses eight academic departments. It includes classrooms, learning resource facilities, student work/study rooms, laboratories and faculty offices. A beautiful atrium divides the classroom and office wings. In 2006, a 12 station state of the art Digital Media Lab was added to the Chamberlain Center to support exciting new course offerings in this area.

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**Paine Center for Science** - This 65,000-square-foot building built in 1969 houses a computer room, faculty offices, classrooms, animal laboratory rooms and instruction and research laboratories. The Margaret Bush Greenhouse, completed in 1999, adjoins the building.

**Center for the Arts** - A 44,000-square-foot facility constructed in 1999 that houses faculty offices, classrooms, studios, practice rooms, recital hall, art gallery, board room, music library, rehearsal hall, recording studio and laboratory facilities for keyboard and computers. The Center is connected via an indoor walkway to the John and Charles Wesley Chapel.

**Stevens Art Studios** - Constructed in 1986, the building includes faculty offices; printmaking studio with lithography and photo silk screening and studios for painting, photography, sculpture, ceramics, drawing, and graphic design.

**Computing Facilities** - The College offers network access for each bed in college-owned dormitories and townhouses as well as a campus-wide wireless network. The majority of classrooms on campus have projection technology, and there are several wired classrooms as well as two distance learning facilities. The Art, Communication and Computer Science departments also maintain labs for department-specific applications. General use labs and print centers are located in the basement of the Campus Center and on the second floor of the Library. A print center is also located on the first floor of the Chamberlain Center near the Audio Visual office as well.

### ATHLETIC FACILITIES

**Nielsen Physical Education Center** - Occupied in December 1980, this facility houses three basketball courts, a running track, auxiliary gymnasium, four racquetball courts, faculty offices, classrooms and seminar rooms; the George R. Wells Natatorium offers a full-sized (25-meter) swimming pool with three diving boards (one a three-meter board). There is parking for 250 vehicles.

**Outdoor Recreation** - Three soccer fields, a field hockey field, a 1,300-seat grandstand, six tennis courts, two ski slopes, lodge, cross-country routes and ski equipment for rent.

**Equestrian Center** - This is the site of the Equestrian Program and it includes accommodations for boarding student-owned horses. Seven week-long summer horse camps are conducted each year in June, July and August. It provides 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 which includes a classroom, restroom, kitchenette, six stalls and an area for hay storage. A second 36' x 24' indoor riding arena was completed in 1994 with stalls for 15 horses.

### STUDENT HOUSING

**Gillette Residence Hall** - A three-section, four-story residence hall with lounge, recreation facilities and a prayer chapel accommodating 335 women.

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

**Rothenbuhler Residence Hall** - A four-story men's residence hall with lounges on each floor, a seminar room and individual study rooms for 140 students.

**Shenawana Residence Hall** - A four-story men's residence hall with several lounges and a recreation room houses 120 students.

**Townhouses** - The college owns and operates 29 townhouse units, providing housing for approximately 200 juniors and seniors. The Randall and Leonard Houghton Townhouses (six and seven units, respectively) were constructed in 1994. The seven-unit Hazlett townhouse was completed in 1999. The nine-unit Perkins Townhouses were completed in 2001. All units include kitchen, living room, two baths and three to four bedrooms. Free laundry facilities are available in the common areas.

**College Flats** - The college constructed an apartment complex totaling 36 units in 2002. Thirty-three units

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are two-bedroom (up to four persons) and three are one-bedroom (two-person) units. Each unit includes bedroom(s), a full bath, kitchen and living area. The overall complex includes free laundry facilities and a common lounge.

### OTHER FACILITIES

**Health Center** - Located in the southwest wing of Gillette Hall, it contains a modern treatment laboratory room, exam rooms, reception area and conference room.

**Robert T. Fiegl Maintenance Center** - A 12,860 square-foot space containing shops for maintenance and repair crews and a warehouse for materials and supplies.

**Spring Lake Preserve** - The Spring Lake Wildlife Preserve, approximately eight miles from campus, is leased and operated by Houghton College in partnership with The Nature Conservancy. The 91-acre reserve contains old-growth forest stands, wetlands and second-growth beech-maple forest, and it fronts on an undeveloped glacial kettle lake. The preserve serves as a field site for environmental research and study.

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## HOUGHTON IN WEST SENECA

810 Union Road, West Seneca, NY 14224 • 716.674.6363 or 888.874.PACE (7223)

### General Information

Since 1969, when Buffalo Bible Institute merged with Houghton College, Houghton College at West Seneca has offered a unique range of opportunities to students. Because of its proximity to urban Buffalo, Houghton College at West Seneca 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 Houghton 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 Program for Accelerating College Education, this program enrolls a new cohort of 15-20 students seven times a year in locations throughout Western New York.

The West Seneca campus is the host of adult programs and facilities designed to reach community and professional audiences throughout Western New York. The Educational Conference Center at West Seneca provides professional training, meeting rooms, 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 Commission on Higher Education, 3624 Market Street, Philadelphia, PA 19104 (267.284.5000). All courses taught by Houghton College faculty are approved and registered by the New York State Education Department.

### Location

Houghton College at West Seneca is located at 810 Union Road, West Seneca, NY 14224. Besides the college buildings, the campus includes 36 acres of open woodland and is readily accessible to a metro bus transfer center and numerous shops and restaurants.

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## **BUILDINGS**

### **Lambein Learning Center**

Named for West Seneca businessman and benefactor Carl Lambein, the center contains offices, classrooms, a telecommunications classroom, and a 30 PC computer lab.

### **Cazenovia Hall**

Cazenovia provides housing and a student lounge for 35 students, while the lower level houses the offices of Christian Counseling Services of Greater Buffalo and the Frontier Baptist Association.

### **Ebenezer Hall**

This structure contains administrative offices and the student mailroom.

### **Lyon Memorial Hall**

This facility serves as a meeting and activity hall for various campus groups. It was named after the late Dr. Herbert Lyon, a founder of the Buffalo Bible Institute.

### **Town Houses**

The five units provide housing for up to 40 students. Each four-bedroom unit has a furnished living room and a kitchen equipped with washer, dryer, stove, microwave oven and refrigerator.

## **REGULATIONS**

Regulations regarding student life and activities are published in the Houghton College Student Guide. Information specific to Houghton College at West Seneca is given to students upon arrival. Please refer to the academic information section of this catalog for information concerning academic requirements.

## **ADULT DEGREE COMPLETION PROGRAM (P.A.C.E.)**

Houghton College at West Seneca offers the Program for Accelerating College Education (P.A.C.E.), 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 in the Adult Learning Opportunities section of this catalog.

## **ADMISSION**

The Houghton campus and the West Seneca campus use the same admission criteria (modified to accommodate adult-degree students). Requests for admission forms may be addressed to Houghton College at West Seneca, 810 Union Road, West Seneca, NY 14224, or call 716.674.6363 or 888.874.PACE, or visit [www.houghton.edu/pace](http://www.houghton.edu/pace).

## **EXPENSES**

For information regarding tuition and other expenses at the West Seneca Campus, see the earlier section on current year financial information.

For more information, write to Houghton College at West Seneca, 810 Union Road, West Seneca, NY 14224, or call 716.674.6363 or 888.874.PACE, or visit [www.houghton.edu/pace](http://www.houghton.edu/pace).





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# Administrative Staff

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Martin Coates .....	Upward Bound Curriculum Coordinator
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Ryan Cool .....	Technology Administrator
Rebecca Crouch .....	Director of Conferences
James DeFelice .....	P.A.C.E. Student Financial Services Advisor/Admission Rep.
Havilah Ford .....	Resident Director - Lambein Hall
Eileen Frawley .....	Academic Counselor, Upward Bound
Phyllis Gaerte .....	Director of Community Relations
Diane Galloway .....	Director of Retention
Christopher Gent .....	Assistant Director, SFS-Student Accounts
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Jeff Kirksey .....	Director of Major Gifts
Cindy Lastoria .....	Director of Operations for the President
Jay Livingston .....	Associate Director of Technology Services
Marianne Loper .....	Assistant Director of SFS- Financial Aid
H. Skip Lord .....	Dir. of Athletics; Head Women’s Basketball Coach

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Troy Martin .....	Director, Student Financial Services
Bridget Mast .....	P.A.C.E. Program Coordinator & Academic Records Assistant
Cherith Meeks .....	Financial Aid Counselor
David Mercer.....	Controller
Ruth Messick .....	Director of Major Gifts
Linda Mills Woolsey .....	Associate Academic Dean
Daniel Moore .....	Instructional Support Coordinator
Sharon Mulligan.....	Upward Bound Program Director
Sharon Myers .....	Director of Public Relations
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Darlene Roloson .....	Director of Advancement Services
Brandon Rush .....	Senior Creative Designer
Mark Satta .....	Visit Office Coordinator
Robert Smalley.....	Cross Country/Track Coach; Instructor
Charles Smith .....	Director of Maintenance Services
Marc Smithers .....	Resident Director – Rothenbuhler Hall
Janyce Smithley .....	Intercultural Admission Counselor
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Richard Weber .....	P.A.C.E Program Coordinator
Pamela Witter .....	Director of Development
Dale Wright .....	Executive Director of Human Resources
Rachel Wright .....	Resident Director - Townhouses and Flats
Jo-Anne Young.....	Equestrian Program Director; Assistant Professor of PE

## Faculty

The date following the name indicates year of appointment to the Houghton faculty.

**A. Cameron Airhart** (1987)

*(Sabbatical Fall 2010)*

***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; Director, Houghton in Tanzania***

BA, Westmont College, 1968; MA, Central Washington State University, 1976; MS, PhD, Oxford University, 1986, 1991

**Glen Avery** (1987-93; 1998)

***Instructional Technology Librarian***

BA, Houghton College, 1976; MBA, Plymouth State College, 1980; MLS, EDM, University at Buffalo, 1993, 2001

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- Kenneth J. Bates** (Spr, 1989)  
*Associate Professor of Business; Chair, Department of Business & Economics;  
Senior Professional in Human Resources*  
BS, Houghton College, 1971; MBA, Loyola College, 1980
- Gary D. Baxter** (1979-1982, part-time; 1982)  
*Professor of Art*  
BA, SUNY College at Geneseo, 1983; MFA, Rochester Institute of Technology, 1985
- Wendy R. Baxter** (2007)  
*Counselor; Assistant Professor*  
BA, Houghton College, 1978; MSW, SUNY Buffalo, 1996
- Blaine David Benedict** (1989) *(Sabbatical Spring 2011)*  
*Professor of Political Science*  
BA, Houghton College, 1973; MA, PhD, University of Pennsylvania, 1974, 1977
- Gregory T. Bish** (2004)  
*Director of Student Programs*  
BA, Houghton, 1995; MS, Alfred University, 1997
- Robert A. Black** (1991)  
*Professor of Economics*  
BA, West Virginia Wesleyan College, 1972; MA, PhD, West Virginia Univ, 1979, 1984
- Andrea N. Boon** (2006, part-time)  
*Assistant Professor of Recreation*  
BS, Houghton College, 2000; MS, SUNY Brockport, 2008
- John N. Brittain** (2003)  
*Dean of the Chapel; Professor of Religion*  
AB, Brown University, 1969; MDiv, The Methodist Theological School, 1972; DMin, St. Mary's Seminary and University, 1985
- David A. Brubaker** (2006, part-time)  
*Assistant Professor of Biology; Director of Health Services; College Physician*  
BS, Houghton College, 1990; MD, SUNY Health Science Center, 1994
- Jan K. Buckwalter** (2007)  
*Assistant Professor of Education*  
BS, Houghton College, 1991; MS, SUNY Geneseo, 1992; MA, Univ. of Texas, 1998; PhD, Indiana University, 2006
- Patrick L. Buckwalter** (2007)  
*Assistant Professor of Education and Intercultural Studies*  
BA, Houghton College, 1992; MA, Univ. of Texas, 1998; PhD, Indiana University, 2008
- Katherine A. Buvalt** (2007)  
*Assistant Professor of Business; Associate Dean of Adult and Distance Education*  
BS, Houghton College, 1998; MBA Regis University, 2003; PhD, Regent University, 2008
- Kristin A. Camenga** (2006)  
*Assistant Professor of Mathematics; Chair, Department of Mathematics and Computer Science*  
BA, St. Olaf College, 1997; MS, PhD, Cornell University, 2006
- Jonathan P. Case** (2005)  
*Associate Professor of Theology*  
BA, MA, Southern Nazarene University, 1983, 1986; MDiv, Nazarene Theological Seminary, 1989; PhD, Luther Seminary, 1995

---

**Brian Casey** (2007)

*Assistant Professor of Orchestral Studies & Horn*

BA, Harding University, 1984; MMus, University of Delaware, 2000; DMA, Northern Colorado University, 2007

**Marlene G. Collins-Blair** (2005)

*Assistant Professor of Spanish; Chair, Department of World Languages and Literatures*

BA, MPhil, PhD, University of the West Indies, 1997, 1999, 2005

**Judy A. Congdon** (1991)

*Professor of Organ*

BMus, Wheaton College, 1975; MMus, University of Colorado, 1977; Diploma, Hochschule fuer Musik, Frankfurt/Main, Germany, 1979; MA, DMA, Eastman School of Music, 1990

**Laurie A. Dashnau** (2000)

*Associate Professor of English*

BA, Nazareth College, 1987; MA, PhD, Miami University of Ohio, 1989, 1996

**Marcus W. Dean** (2003)

*Associate Professor of Intercultural Studies; Associate Dean for Intercultural, World Languages and Recreation Studies; Chair, Department of Intercultural Studies; Director of Off-Campus Programs*

BA, Indiana Wesleyan University, 1981; MDiv, ThM, Asbury Seminary, 1987, 1988; PhD, Trinity Seminary, 2001

**Paul T. DeBoer** (2002)

*Professor of Brass Instruments*

BMus, MMus, Manhattan School of Music, 1973, 1974; DMus, Indiana University, 1987

**William R. Doezenia** (1979)

*Professor of History*

AB, Calvin College, 1969; MA, PhD, Kent State University, 1974, 1978

**Richard K. Eckley** (1990)

*Professor of Theology; NALA Faculty Representative*

BS, United Wesleyan College, 1980; MDiv, Asbury Theological Seminary, 1983; ThM, Princeton Theological Seminary, 1985; PhD, Duquesne University, 1998

**Constance R. Finney** (1981-86, part-time; 1986)

*Professor of Education; Faculty Moderator*

BA, Houghton College, 1978; MS, SUNY College at Buffalo, 1981; EdD, SUNY at Buffalo, 1994

**Carlton D. Fisher** (1985)

*Professor of Philosophy*

BA, Marion College, 1974; MA, Western Kentucky University, 1978; MA, PhD, University of Notre Dame, 1980, 1984

**Cathy E. Freytag** (2003)

*Professor of Education; Associate Dean for Education and Physical Education; Chair, Department of Education*

BS, Carson-Newman College, 1990; MA, University of Alabama, 1991; EdD, University of Central Florida, 2003

**Douglas M. Gaerte** (1988)

*Professor of Communication; Chair, Department of Communication*

BS, Grace College, 1983; MA, PhD, Indiana University, 1987, 1995

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**Andrew F. Gallman, II** (1998)

*Professor of Linguistics*

BA, Millsaps College, 1970; MA, PhD, University of Texas at Arlington, 1974, 1983

**Robert J. Galloway** (1973)

*Professor of Piano*

BM, MM, Boston Univ., 1968, 1972; MTS, Gordon-Conwell Theol Sem., 1970; Staatliche Hochschule fuer Musik, Cologne, W. Germany, 1972-73; PhD, Michigan State Univ., 1995

**Richard A. Halberg** (1975)

*Professor of Business Administration; Certified Financial Planner; Hoselton Chair (2008-2011)*

BA, Houghton College, 1971; MBA, University of Akron, 1976

**Virginia A. Halberg** (1978, part-time)

*Instructor of Piano*

BMus, Houghton College, 1971

**Deanna Hand** (2002)

*Instructor of Physical Education; Athletic Trainer*

BS, University of Pittsburgh, 1998; MS, University of West Florida, 2000

**Susan M. Hice** (1993)

*Associate Professor of Education; Director, Student Academic Services*

BA, Kalamazoo College, 1965; MSciEd, SUNY College at Fredonia, 1974; PhD, Michigan State Univ., 1983

**Kelley Hijleh** (1993, part-time; 2009)

*Instructor of Voice*

BMus, Grad. Perf. Dipl., Peabody Conservatory, 1991, 1993

**Mark D. Hijleh** (1993)

*Professor of Composition and Conducting; Director of Integrative Studies*

BS, William Jewell College, 1985; MM, Ithaca College School of Music, 1987; DMA, Peabody Conservatory, 1991; MA, University of Sheffield, 2008

**Donell Brandon Hoffman** (2006)

*Assistant Professor of Physics*

BS, Northwest Nazarene University, 2000; PhD, University of California, Davis, 2007

**Keith A. Horn** (2009)

*Associate Dean for the Natural Sciences and Mathematics*

BS, Houghton College, 1975; PhD, University of Illinois, 1980

**David A. Howard** (1969; 2009 part-time)

*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)

*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

**David M. Huth** (2006)

*Associate Professor of Visual Communication and Media Arts*

BA, Houghton College, 1991; MFA, Rochester Institute of Technology, 2005

---

**Lori L. Huth** (2004)

*Assistant Professor of Creative Writing*

BA, Houghton College, 2000; MA, SUNY University at Buffalo, 2001

**Sharra Hynes** (2007)

*Vice President for Student Life*

BMus, Houghton College, 1994; MS, Alfred University, 1997; PhD, Texas A&M, 2008

**Richard A. Jacobson** (1966)

*Professor of Mathematics*

BS, MS, South Dakota School of Mines, 1959, 1961

**Brandon P. Johnson** (2003)

*Associate Professor of Vocal Music & Conducting and Director of Choral Activities*

BMus, Concordia College, 1996; MMus, DMA, University of Arizona, 2001, 2003

**Sandra D. Johnson** (2000)

*Athletic Trainer/Physical Education Instructor*

BS, Houghton College, 1999; MSED, University of Akron, 2000

**Sharon L. Johnson** (2004)

*Assistant Professor of Piano; Accompanying & Ministry Team Coordinator*

BMus, MM, University of North Carolina, 1983, 1985; DMA, University of Minnesota, 2004

**Jill E. Jordan** (2009)

*Assistant Professor of Mathematics*

BA, Houghton College, 1999; MA, PhD, BrynMawr College, 2002, 2005

**Alyn K. Kay** (2009)

*Assistant Professor of Education*

BA, Michigan State University, 1999; M.Ed, PhD, Texas A&M University, 2003, 2009

**Thomas R. Kettelkamp** (1975-76, 1978)

*Professor of Recreation and Physical Education; Chair, Department of Environmental Recreation and Equestrian Studies*

BS, Southern Illinois University, 1970; MS, Illinois State University, 1972; PhD, University of Illinois, 1982

**Ndunge Kiiti** (2006)

*Associate Professor of Intercultural Studies*

BS, Houghton College, 1988; MA, Wheaton College, 1992; PhD, Cornell University, 2002

**Ben R. King** (1980-1992, 1996)

*Professor of Voice; Director, School of Music; Associate Dean for Music*

BM, MM, Texas Tech University, 1973, 1974; DMA, Eastman School of Music, 1985

**Jill K. Kingdon** (2001; 2005, part-time)

*Electronic Resources Librarian*

BA, Houghton College, 1985; MSLS, Catholic University of America, 1999

**David Kinman** (2008)

*Associate Professor of Spanish*

BA, Geneva College, 1973; MA, Indiana University of PA, 1977

**Eli Knapp** (Spring 2009)

*Assistant Professor of Intercultural Studies*

BS, Houghton College, 2000; MS, University of California-Santa Barbara, 2003; PhD, Colorado State University, 2009

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**Kristina LaCelle-Peterson** (2001)

*Associate Professor of Religion; Chair, Department of Theology*

BA, Houghton College, 1982; MDiv., Gordon-Conwell Theological Seminary, 1987; MPhil., PhD, Drew University Graduate School, 1992, 2001

**Mark LaCelle-Peterson** (2001)

(On Leave 2010)

*Professor of Education*

BA, MA, University of Minnesota, 1984, 1987; EdM, EdD, Harvard University, 1991

**Michael D. Lastoria** (1982)

*Director of Counseling Services*

BS, Rutgers University, 1970; MS, University of Nebraska (Omaha), 1974; EdD, Loyola University (Chicago), 1982; Clinical Internship, Marriage and Family Therapy, University of Rochester, 1987-92; Clinical Member, American Assoc. of Marriage and Family Therapists

**David B. Lewis** (1993)

*Associate Professor; Head Womens Soccer Coach; Athletic Administration*

BA, The King's College, 1978; MDiv, DMin, Gordon-Conwell Theological Seminary; 1982, 1992

**Benjamin J. B. Lipscomb** (2002)

(Sabbatical 2010-2011)

*Associate Professor of Philosophy*

BA, Calvin College, 1996; MA, PhD, University of Notre Dame; 1999, 2002

**Susan Bruxvoort Lipscomb** (2005)

*Assistant Professor of English*

BA, Calvin College, 1996; MA, University of Chicago, 1997; MA, PhD, University of Illinois, Urbana Champaign, 1998, 2005

**Wayne A. MacBeth** (1975-92; 2004)

*Vice President for Enrollment Management and Market Relations*

BA, Houghton College, 1975; MBA, St. Bonaventure University, 1988

**Ronald P. Mahurin** (2008)

*Academic Vice President and Dean of the College*

AB, Gordon College, 1981; MA, PhD, Miami University, 1983, 1991

**Susan G. Martin** (1994, part-time; 1995)

*Assistant Professor of Education*

BS, Houghton College, 1984; MS, Alfred University, 1990

**Charles E. Massey** (1976; part-time since 1998)

*Professor of Education; Director of Houghton College City Semester*

AB, Southern Pilgrim College, 1968; MA, EdD, Univ. of NC at Greensboro, 1972, 1976

**Peter C. Meilaender** (2001)

*Associate Professor of Political Science; Chair, Department of History and Political Science*

BA, Kenyon College, 1993; MA, PhD, University of Notre Dame, 1997, 1999

**Daniel C. Minchen** (2006)

*Associate Professor of Communication and Business*

BA, SUNY College at Geneseo, 1968; MS, Syracuse University, 1999

**Shirley A. Mullen** (2006)

*President; Professor of History*

BA, Houghton College, 1976; MA, University of Toronto, 1977; PhD, University of Minnesota, 1985; PhD, University of Wales, 2000

- 
- Nancy L. Murphy** (2007)  
*Counselor; Assistant Professor*  
BA, Mount Vernon Nazarene College, 1980; MA, The Ohio State University, 1982
- Theodore J. Murphy** (1986)  
*Professor of Art*  
BA, Mount Vernon Nazarene College, 1980; MFA, Ohio State University, 1983
- William J. Newbrough** (2002)  
*Associate Professor of Piano*  
BA, University of California at Berkeley, 1994; MM, DMA, AD, Peabody Conservatory of Music/Johns Hopkins University, 1995, 1998, 2000
- Timothy J. Nichols** (1990)  
*Assistant Professor of Education*  
BA, Houghton College, 1981; MS, SUNY College at Buffalo, 1983; PhD, University at Buffalo, 1997
- Ronald J. Oakerson** (1992)  
*Professor of Political Science*  
BA, Taylor University, 1966; MA, PhD, Indiana University, 1973, 1978
- Terence P. Paige** (1994)  
*Professor of New Testament: Chair, Department of Biblical Studies*  
BA, Seattle Pacific University, 1982; MCS, MDiv., Regent College, 1986; PhD, University of Sheffield (England), 1994
- Meic Pearse** (2004)  
*Professor of History; Director of the First-Year East Meets West Honors Program*  
BA, University of Wales, 1978; DMS, Polytechnic of Wales, 1981; MPhil, DPhil, Oxford University, 1989, 1992
- Matthew K. Pelletier** (1999)  
*Associate Professor of Biology; Chair, Department of Biology;*  
BS, Liberty University, 1993; PhD, Virginia Tech, 1997
- Jamie Potter** (2008)  
*Assistant Professor of Biology; Director of Pre-Medical Education*  
BS, Olivet Nazarene University, 1999; MS, University of Wisconsin-Madison, 2002; PhD, Southern Illinois University, 2008
- Trini G. Rangel** (1998)  
*Assistant Professor of Physical Education; Chair, Department of Physical and Health Education*  
BS, Colorado State University, 1991; MS, Bemidji State University, 1996
- Barbara Jean Reigles** (1975, 2009 part-time)  
*Professor of Voice*  
BS, Roberts Wesleyan College, 1969; MM, University of Cincinnati Conservatory of Music, 1975; PhD, Texas Tech University, 1995
- John M. Rhett** (1995)  
*Professor of Art*  
BFA, MFA, Virginia Commonwealth University, 1979, 1995
- Sun Mi Ro** (2005)  
*Assistant Professor of Theory & Composition*  
BMus, MMus, San Francisco State University, 1994, 1997; PhD, University of Utah, 2008



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**Jean-Louis Roederer** (1966-72; 1976)

*Associate Professor of French and Spanish*

BA, Houghton College, 1964; MA, Middlebury College, 1970

**Lois Ross** (2008)

*Associate Professor of Accounting*

BA, Houghton College, 1973; MA, California State at Los Angeles; MBA, SUNY Buffalo, 1998

**Aaron S. Routhe** (2008)

*Assistant Professor of Sociology*

BS, Houghton College, 1997; MA, PhD, University of Tennessee-Knoxville, 2003, 2009

**John Rowley** (2008)

*Assistant Professor of Chemistry*

BS, Houghton College, 2003; MS, PhD, Cornell University, 2005, 2008

**Carl Schultz** (1965-67; 1971)

*Professor of Old Testament*

BRE, Malone College, 1952; BA, Houghton College, 1953; MA, Wheaton College, 1954; PhD, Brandeis University, 1973

**Paul W. Shea** (1994-96, part-time; 1996)

*Associate Professor of Missions*

BA, Houghton College, 1969; MDiv, DMiss, Trinity Evangelical Div. Sch., 1973, 1994

**Robert B. Smalley** (1988)

*Assistant Professor of Recreation*

BS, Houghton College, 1978; MEd, State University of New York at Buffalo, 1985

**Jillian L. Sokso** (2005)

*Assistant Professor of Art; Chair, Department of Art*

BFA, Moore College of Art and Design, 2003; MFA, University of Delaware, 2005

**Richard D. Stegen** (1981)

*Professor of Psychology*

BA, Houghton College, 1969; MA, Temple University, 1972; PhD, St. John's Univ., 1982

**Daryl H. Stevenson** (1982)

*Associate Dean for Institutional Research & Assessment; Professor of Psychology*

BA, Houghton College, 1970; MS, SUNY College at Brockport, 1975; MA, PhD, Rosemead Graduate School of Psychology, 1978, 1981

**David Stevick** (2008)

*Director of Library and Information Resources*

BA, Houghton College, 1991; MSLS, Clarion University of Pennsylvania, 2002

**William Christopher Stewart** (1993)

*Professor of Philosophy: Associate Dean for Biblical Studies, Theology and Philosophy: Chair, Department of Philosophy*

BA, Wheaton College, 1982; MA, Western Kentucky University, 1988; MA, PhD, University of Notre Dame, 1989, 1992

**Gary M. Stith** (2002)

*Professor of Music Education*

BMus, Ohio State University, 1972; MMus, Eastman School of Music, 1978

(Sabbatical Fall 2010)

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**Aaron M. Sullivan** (2004)

***Assistant Professor of Biology***

BS, Mount Vernon Nazarene University, 1997; MS, Southwest Missouri State University, 1999; PhD, SUNY Binghamton, 2004

**Sunshine R. Sullivan** (2005, part-time; 2006)

***Instructor of Education***

BA, Mt. Vernon Nazarene University, 1997; MS, Binghamton University, 2003

**Cynthia S. Symons** (1994)

***Professor of Psychology***

BA, Utica College, 1986; MS, PhD, Syracuse University, 1990, 1992

**Ryan Thompson** (2009)

***Assistant Professor of Digital Media & Photography***

BFA, Calvin College, 2003; MFA Candidate, University of Illinois, 2009

**Kulli Tõniste** (2006)

***Assistant Professor of New Testament***

BA (equivalent), Baltic Methodist Theological Seminary, 2000; MA, Asbury Theological Seminary, 2002

**Karen E. Torraca** (2007)

***Associate Professor of Chemistry***

BS, Houghton College, 1993; PhD, University of Florida, 1999

**Paula A. Valley** (2000 – part-time)

***Reference Librarian***

BS, SUNY College at Buffalo, 1974; MSE, St. Bonaventure University, 1988; MILS, SUNY at Buffalo, 1998

**Kurt Vandock** (2010)

***Assistant Professor of Biology***

BS, Bowling Green State University, 2006; PhD, Bowling Green State University, anticipated 2010

**John F. Van Wicklin** (1983)

***Professor of Psychology***

BS, Wheaton College, 1968; MA, Columbia University, 1971; PhD, New School for Social Research, 1981

**Robert W. VanWicklin** (2009)

***Senior Vice President for Advancement***

BA, Houghton College, 1992; MA, US Naval War College, 2004

**Scott Wade** (2008)

***Vice President for Development and Marketing***

BS, George Fox University, 1997; MS, Alfred University, 1999.

**J. Michael Walters** (1995)

***Professor of Christian Ministries; Director of Ministerial Education***

BA, Circleville Bible College, 1972; BA, Houghton College, 1986; MAR, Asbury Theol. Sem., 1974; MA, St. Mary's Univ., 1980; DMin, Trinity Evangelical Divinity School, 1991

**James F. Wardwell** (1989)

***Associate Professor of English; Associate Dean for Arts and Letters: Chair, Department of English and Writing***

BA, Gordon College, 1979; MDiv, Eastern Baptist Theological Seminary, 1982; MA, Villanova University, 1984; PhD, University of Rhode Island, 1989

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**Christopher Wells (2010)**

***Assistant Professor of Physics***

MS, Houghton College, 2005; MA, The Johns Hopkins University, 2008; PhD, The Johns Hopkins University, anticipated 2010

**Bradley E. Wilber (1997)**

***Librarian: Reference, Instruction and Cataloging***

BA, Houghton College, 1991; MLS, Syracuse University, 1996

**James M. Wolfe (1988)**

***Professor of Biology***

BA, Gordon College, 1975; MS, University of Oklahoma, 1978; PhD, University of Rhode Island, 1988

**Linda Mills Woolsey (1999, part-time; 2004)**

***Associate Academic Dean; Professor of English; Director, First Year Honors Program – London; Interim Director, Honors Programs***

BA, Houghton College, 1974; MA, SUNY Binghamton, 1976; PhD, Drew University, 1989

**Stephen A. Woolsey (1999)**

***Professor of English; Director of the Houghton in London Program***

BA, Houghton College, 1973; MA, SUNY Binghamton, 1976; PhD, Drew University, 1988

**Rebekah B. Yates (2009)**

***Assistant Professor of Mathematics***

BS, Wheaton College, 2003; MA, PhD, University of Montana, 2006, 2009

**Paul D. Young (1980)**

***Professor of Psychology; Associate Dean for Social Sciences; Chair, Department of Psychology and Sociology; Director, Houghton in Australia***

BS, Houghton College, 1976; MA, PhD, University of Alberta, 1978, 1984

**Jo-Anne O. Young (1985; part-time)**

***Assistant Professor of Physical Education; Equestrian Program Director***

BS, Houghton College, 1969; MA, Salem International University, 2005

**Mark E. Yuly (2000)**

***Professor of Physics; Chair, Department of Physics/Earth Science***

BS, Northwest Nazarene College, 1987; PhD, Massachusetts Inst. of Technology, 1993

**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

*(Sabbatical Spring 2011)*

**MISSIONARY SCHOLARS IN RESIDENCE**

**Benjamin Hegeman (2006)**

***Adjunct Assistant Professor of Intercultural Studies***

BA, Wilfred Laurier University, 1985; BRS, MDiv, Central Baptist Seminary & College, 1985, 1986; PhD, University of Utrecht, 2000

**Don B. Little (2009)**

***Associate Professor of Intercultural Studies***

BA, University of British Columbia, 1984; Diploma in Christian Studies, Regent College, 1985; M.Ed, University of British Columbia, 1992; DMin, Gordon-Conwell Theological Seminary, May 2008

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## ADJUNCT FACULTY

**John M. Andrews, Jr.** (1986)

*Adjunct Professor of Physics*

BS, Houghton College, 1958; PhD, Massachusetts Institute of Technology, 1964

**Andy Bannister** (2006)

*Adjunct Assistant Professor of Intercultural Studies*

BA, London School of Theology, 2003; Undertaking a PhD at London School of Theology

**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

**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

**Benjamin Hegeman** (2006)

*Adjunct Assistant Professor of Intercultural Studies*

BA, Wilfred Laurier University, 1985; BRS, MDiv, Central Baptist Seminary & College, 1985, 1986; PhD, University of Utrecht, 2000

**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 (England), 1978; MA, University of Manitoba (Canada), 1981; MA, University of Zimbabwe: Harare, 1993; PhD, Georgetown University, 1985

**Alan B. MacDonald** (2006)

*Adjunct Assistant Professor of Intercultural Studies*

BA, Houghton, 1974; MA, University of Southern California, School of Journalism, 1982

**Anthony Petrillo** (1996)

*Adjunct Professor of Computer Science*

BA, MBA, PhD, SUNY at Buffalo, 1980, 1982, 1992

**Brian Spezialetti** (1988)

*Adjunct Professor of Clinical Laboratory Science; Program Director, Robert Packer Hospital Clinical Science Program*

MS, Elmira College

**Robert C. Tice** (1986)

*Adjunct Assistant Professor of Christian Education*

BS, Houghton College, 1980; MA, ThM, Fuller Theological Seminary, 1984, 1986

---

## FACULTY EMERITI

Dates indicate beginning and termination of service.

**Richard J. Alderman** (1971-91)

*Director of Admissions and Records; Executive Director of Alumni*

BA, Houghton College, 1952; MS, Alfred University 1960

**William T. Allen** (1953-92)

*Professor of Piano and Theory, Composer in Residence*

BM, MMus, Northwestern University School of Music, 1950, 1951; PhD, Eastman School of Music, 1954

**Bruce C. Brown** (1974-2002)

*Professor of Voice*

BM, Wheaton College, 1962; MM, DMA, University of Southern California, 1964, 1974

**E. Douglas Burke** (1958-94)

*Professor of Physical Education; Director of Intercollegiate Athletics*

BS, Wheaton College, 1953; MA, Syracuse University, 1954

**Ruth G. Butler** (1969-85)

*Librarian-Buffalo Suburban Campus*

BEd, Geneseo State Teachers College, 1943; MLS, SUNY College at Geneseo, 1964

**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

**Larry W. Christensen** (1969-2006)

*Professor of Chemistry*

BA, Goshen College, 1965; PhD, Purdue University, 1969

**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

**Robert L. Cummings** (1962-88)

*Professor of German*

BA, Houghton College, 1950; MA, University of Rochester, 1952

**Robert F. Danner** (1981-2001)

*Vice President for Student Life and Dean of Students*

BME, Wheaton College, 1960; MA, George Washington University, 1974; PhD, SUNY at Buffalo, 1990

**Richard A. Gould** (1968-2006)

*Associate Professor of Classics*

BA, Houghton College, 1961; MA, PhD, Princeton University, 1964, 1968

**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

---

**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

**Harold E. Kingdon** (1967-2006)

*Professor of Christian Ministries*

BA, Houghton College, 1957; MDiv, ThM, Asbury Theological Seminary, 1966, 1967; DMin, Bethel Seminary, 1978

**John R. Leax** (1968-2009)

*Professor of English; Chair, Department of English; Poet in Residence; Van Gordon Chair (2006-2009)*

BA, Houghton College, 1967; MA, Johns Hopkins University, 1968

**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

**Harold E. McNiel** (1958-2002)

*Professor of Brass Instruments*

BM, Oklahoma City Univ., 1956; MMus, DMA, Eastman Schl of Music, 1958, 1968

**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 B. Perkins** (1978-2006)

*Professor of Sociology*

BA, Wheaton College, 1965; MA, PhD, University of Massachusetts, 1972, 1977

**Bernard J. Piersma** (1971-2004)

*Professor of Chemistry*

BA, Colgate University, 1959; MS, St Lawrence, 1961; PhD, Univ. of Pennsylvania, 1965

**Richard C. Pocock** (1959-95)

*Professor of Mathematics*

BA, Houghton College, 1955; MS, Syracuse University, 1959; EdD, Columbia Univ, 1974

---

**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

**Roger J. Rozendal** (1972-2006)

*Associate Professor of Communication*

BA, Northwestern College, 1965; MA, Oklahoma State University, 1969

**Frederick Shannon** (1958-93)

*Professor of Chemistry; Chair, Department of Integrative Studies*

BS, MS, PhD, University of Akron, 1953, 1959, 1964

**Lois Jane Wilt** (1968-88)

*Assistant Professor of Music*

BMus, Houghton College, 1946; MA, Western Reserve University, 1947

**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

**Coenraad Bakker** (1997-2002)

*Associate Professor of Computer Science*

BS, Parsons College, 1965; MS, University of Rochester, 1970

**Willis Beardsley** (1980-2005)

*Director of Academic Assessment*

BA, Houghton College, 1960; MS, SUNY College at Geneseo, 1965; EdD, SUNY at Buffalo, 1977

**Bruce N. Brenneman** (1982-98, part-time; 1998)

*Assistant Professor of English*

BS, Taylor University, 1961; MA, Wesleyan University, 1968

**Carol A. Brown** (1995-2002, part-time)

*Assistant Professor of Education*

BA, Owosso College; BS, Spring Arbor College, 1965; MLS, SUNY Geneseo, 1981

**Daniel R. Chamberlain** (1976-2006)

*President*

BA, Upland College, 1953; MA, California State College at Los Angeles, 1957; EdD, University of Southern California, 1967

**Dolores W. Gadevsky** (1989-2005, part-time)

*Associate Professor of Piano*

BMus, Los Angeles Conservatory, 1956; "Diplom," Akademie fuer Musik und Darstellende Kunst, Vienna, 1970; DMA, Eastman School of Music, 1987

**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

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**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

**Gudrun M. Stevenson** (1990-2002; part-time)

*Assistant Professor of German*

BA, Houghton College, 1970; MA, Middlebury College, 1996

**John R. Tyson** (1979-2009)

*Professor of Theology*

AB, Grove City College, 1974; MDiv, Asbury Theological Seminary, 1977; MPhil, PhD, The Graduate School Drew University, 1980, 1983

**Daniel P. Woolsey** (1991-2009)

*Professor of Education*

BA, Houghton College, 1977; MA, Simmons College, 1983; PhD, Ohio State University (Columbus), 1986







# Index

Academic guidance.....	42	CDRP (Cross-disciplinary Research Project) .....	117
Academic information .....	32	Change of schedule ( <i>see Drop/Adds</i> ).....	38
Academic petitions.....	45	Chemistry .....	77
Accounting .....	54	China Studies Program (CCCU).....	221
Accreditations .....	2	Christian Formation.....	80
Admission .....	11	Christian ministries (AAS) .....	82
Adolescence education.....	98	Church history ( <i>see Theology</i> ) .....	
Adult degree program (P.A.C.E.) .....	231	Church music .....	159
Advanced placement tests .....	13	Class classification .....	42
Africa semester (Tanzania).....	215, 217	CLEP .....	14
American Studies Program (CCCU) .....	220	Clubs and organizations .....	241
Applied music .....	17, 158	Coaching .....	173
Applied physics .....	109, 181	Communication .....	83
Application .....	11	Community expectations .....	7
Army ROTC.....	9, 203	Composition .....	153
Art.....	57	Computational physics.....	89
Articulation agreements .....	15	Computer science .....	90
Artist Series .....	244	Computing facilities .....	249
Athletic facilities .....	249	Consortium visitor.....	230
Attendance (requirements) .....	38	Counseling services .....	240
termination of .....	42	Course load.....	38
Audit classes .....	38	Course numbering system .....	45
Australia, Houghton in .....	215, 217	Creedal Statement.....	6
Australian Studies .....	62, 215, 217	Crime statistics reporting.....	10
Automobile at college.....	245		
Auto registration fees .....	17	Dean's honor list .....	42
		Dean's list.....	42
Bible .....	62	Degree completion program .....	231
Biochemistry .....	66	Degree requirements .....	33-34
Biology .....	67	Degrees offered .....	35-36
Board of Trustees.....	252	Disabilities, Students with.....	44
Board plan .....	18	Dismissal.....	42
<i>Boulder</i> (yearbook).....	244	Dropping classes ( <i>see Withdrawal from</i> ) .....	
Brass instruments ( <i>see music</i> ) .....			
Buffalo Campus ( <i>see West Seneca</i> ) .....		Earth science .....	93
Buildings and facilities.....	248	Economics .....	93
Business administration .....	72	Education.....	95
		Education: elementary/childhood.....	98
Calendars .....	4, 5	Education: secondary/adolescence .....	98
Career Services.....	239	Educational Rights & Privacy Act .....	10
CCCU .....	9, 220	Eligibility for participation.....	40

Engineering/applied physics (dual-degree) .....	109
English .....	111
Ensembles .....	160
Entrance examinations .....	12
Environmental stewardship .....	114
Environmental studies .....	113
Equestrian studies .....	114, 196
Expenses .....	16
Family studies .....	116
Fees .....	17
Financial aid .....	20
Financial delinquency .....	20
Financial information .....	16
First-year Introduction (FYI) .....	244
First-year Honors Program .....	127, 214
Five-College Committee .....	9
Foreign languages .....	116
Forestry .....	122
French ( <i>see foreign languages</i> ) .....	
General Information .....	6
General Science .....	123
German ( <i>see foreign languages</i> ) .....	
Grade grievance procedure .....	39
Grading system .....	39
Graduation honors .....	42
Graduation requirements .....	33
Grants, loans, scholarships .....	20
Greek ( <i>see religion/philosophy</i> ) .....	
Health services .....	238
Health professions, Pre- .....	188
Hebrew ( <i>see religion/philosophy</i> ) .....	
History .....	124
History of Houghton College .....	7
Homeschoolers .....	15
Honesty .....	41
Honors program .....	127, 214
Honors projects .....	43
Horsemanship ( <i>see equestrian</i> ) .....	
Houghton in Australia .....	215, 217
Houghton in London .....	215, 217
Houghton in Tanzania .....	215, 217
Houghton College scholarships .....	24
Housing .....	17
Humanities .....	129
Immunization policy .....	239
Independent study .....	43
Information Technology Management .....	130
Insurance, health & accident .....	19
Integrative studies .....	48
Integrative studies, BMus .....	149
Intercultural studies .....	131
International Business Institute .....	229
International Development .....	138
International relations .....	138



Internships .....	43
Islamic studies .....	140
Keyboard instruments ( <i>see music</i> ) .....	
Late registration (student fees) .....	19
Latin ( <i>see foreign languages</i> ) .....	
Latin American Studies Program (CCCU) .....	224
Law, Pre- .....	189
Liberal arts requirements .....	33
Library .....	248
Linguistics .....	141
Load-limit policy .....	38
Loans, scholarships, grants .....	20
London, Houghton in .....	215, 216
Los Angeles Film Studies Prog (CCCU) .....	225
Majors offered .....	35-36
Mathematics .....	142
Mayterm .....	18, 43
Medical technology .....	145
Middle East Studies Program (CCCU) .....	226
Ministerial program .....	146
Ministry— <i>see the following headings:</i>	
Christian Formation	
Missions	
Religion	
Sports Ministry	
Urban Ministry	
Minors, self-designed .....	37
Mission of Houghton College .....	6
Missions .....	146
Music .....	148
Music education ( <i>see music</i> ) .....	
Music opportunities .....	244

New student orientation (FYI) .....	244	Satisfactory progress .....	23
New York State financial aid .....	23	Scholarships, grants, loans .....	20
New York teacher certification.....	97	Second degree .....	33
Off-campus programs .....	214	Secondary (adolescence) education .....	98
Organ ( <i>see music</i> ) .....		Semester schedule .....	4, 5
Outdoor education .....	197	Seminary, Pre-.....	191
Outreach groups .....	238	Senior-in-absentia .....	44
Oxford Summer School Prog (CCCU) .....	227	Sociology .....	204
P.A.C.E. (degree completion) .....	231	Spanish ( <i>see foreign languages</i> ) .....	
Pastoral ministry ( <i>see religion, ministerial concentration</i> ) .....		Sports Ministry .....	207
Percussion instruments ( <i>see music</i> ) .....		String instruments ( <i>see music</i> ) .....	
Petitions .....	45	Student academic services.....	44
Philosophy .....	166	Student government association .....	241
Philosophy statement.....	6	Student life .....	237
Physical education .....	170	Student teaching policy .....	97
Physical therapy, Pre-.....	190	Study abroad ( <i>see off-campus programs</i> ) .....	
Physics.....	180		
Computational .....	89	Teacher certification ( <i>see education</i> ) .....	
Piano ( <i>see music</i> ) .....		TESOL .....	208
Political Science .....	183	Theology .....	209
Pre-Art Therapy .....	187	Theory ( <i>see music</i> ) .....	
Pre-health professions .....	188	TOEFL .....	12
Pre-law .....	189	Transcript fees.....	17
Pre-medical ( <i>see pre-health professions</i> ) .....	188	Transfer students .....	14
Pre-Pharmacy .....	190	Trustees .....	252
Pre-physical therapy.....	190	Tuition rates .....	16, (P.A.C.E. 235)
Pre-seminary .....	191	Tutorial study .....	43
President's list .....	42	Tutoring service (Student Academic Serv).....	44
Pre-veterinary .....	188		
Privacy Act.....	10	Urban ministry.....	211
Probation .....	42	Veterinary, Pre- .....	188
Psychology .....	192	Voice ( <i>see music</i> ) .....	
Quality point average .....	40		
Recreation .....	196	West Seneca campus .....	250
Refunds.....	20	Western New York Consortium .....	9
Religion.....	200	Withdrawal from college .....	44
Religious observances .....	10, 38	Woodwind instruments ( <i>see music</i> ) .....	
Repeating a course .....	40	Work-study .....	21
Residency requirement .....	33	Writing .....	212
ROTC (Army).....	203		
		Yearbook ( <i>Boulder</i> ).....	244
		Youth ministry ( <i>see Christian formation, youth concentration</i> ) .....	



