



Academic Catalog

HOUGHTON COLLEGE | 2012-2013



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**HOUGHTON
COLLEGE**

800.777.2556

One Willard Ave., Houghton, NY 14744
www.HOUGHTON.edu



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, 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	21
Academic Information.....	32
Courses of Instruction	45
Academic Programs	51
Accounting	51
Adult Degree Completion (P.A.C.E.).....	234
Applied Physics.....	117
Art	54
Australian and New Zealand Studies.....	62, 217, 220
Bible	63
Biochemistry	67
Biology	68
Business Administration	79
Chemistry	84
Christian Formation.....	87
Christian Ministries	90
College Life and Leadership.....	48
Communication	91
Computational Physics	96
Computer Science.....	97
Earth Science	99
Economics	100
Education.....	102
Engineering Program.....	117
English	118
Environmental Science (see Biology).....	70, 74
Equestrian Studies	121
Family Studies.....	123
Foreign Languages	124
Forestry (see Biology).....	71, 74
General Science.....	129
History	130
Honors Programs	133
Humanities.....	135
Information Technology Management	136
Integrative Studies.....	48
Intercultural Studies	138
Interdisciplinary Studies	145
International Development.....	145
Islamic Studies	146
Linguistics	146
Mathematics.....	148
Medical Technology (see Biology)	69, 72
Missions	151
Music.....	154
New Student Program	47
Pastoral Ministry	201
(under Religion, Ministerial Concentration)	
Philosophy	169
Physical Education	172
Physics.....	182
Political Science	186
Pre-Art Therapy.....	190
Pre-Health Professions (see Biology).....	68, 70
Pre-Law.....	190
Pre-Medical (see Biology).....	69
Pre-Physical Therapy (see Biology).....	70, 73
Pre-Seminary	191
Psychology	192
Public Health	197
Recreation	197
Religion.....	201
ROTC	205
Sociology	205
Sports Ministry	209
TESOL	210
Theology	211
Urban Ministry	213
Writing.....	214
Index	269
Off-campus Programs.....	216
Adult Learning Opportunities	234
Student Life.....	240
Campus Information.....	249
Buildings and Facilities	249
Trustees, Officers, Faculty.....	253
Administrators.....	254
Faculty.....	255
Faculty Emeriti	264

2012-2013 College Calendar

FALL SEMESTER

Aug 31, Friday
 Sep 1, Saturday
 Sep 3, Monday
 TBD
 Sep 9-12, Sun.-Wed.
 Sep 17, Monday
 Oct 5-6, Fri.-Sat.
 Oct 18-21, Thur.-Sun.
 Oct 22, Monday, 7:45 a.m.
 Oct 23, Tues., 11 p.m.
 Oct 24, Wednesday
 Nov 12, Monday

 Nov 21-25, Wed.-Sun.
 Nov 26, Mon., 7:45 a.m.
 Dec 14, Friday
 Dec 17-21, Mon.-Fri.
 Dec 21, Fri., 12:30 p.m.
 Jan 2, 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
 Mid-semester grades due
 Second half semester courses begin*
 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 14, Monday, 7:45 a.m.
 Jan 20-26, Sun.-Sat.
 Jan 28, Monday
 Feb 28- Mar 3, Thurs.-Sun.
 Mar 4, Monday, 7:45 a.m.
 Mar 4, Monday

 Mar 7, Thursday

 Mar 12, Tuesday, 11 p.m.
 Mar 13, Wednesday
 Mar 23 – Apr. 1, Sat.-Mon.
 Apr 2, Tuesday, 7:45 a.m.
 Apr 8, Monday

 Apr 30, Tuesday
 May 1, Wednesday
 May 1 Wednesday
 Apr 30 – May 7, Tues.-Tues.
 May 7, Tuesday
 May 7, Tuesday
 May 10, Fri., (tbd)
 May 11, Sat., 10:00 a.m.
 May 20, Monday, 11 p.m.

Classes begin
 PRAXIS
 Last day to add full semester courses*
 February break
 Classes resume
 Monday/Wednesday Second half semester courses begin*
 Tuesday/Thursday Second half semester courses begin*
 Mid-semester grades due
 H.E.L.P. Day-no classes during the day
 Easter vacation
 Classes resume
 Last day to withdraw from a full semester course without an F*
 First final exam 7:00 p.m.
 Last day of classes
 Final exams beginning at 7:00 p.m.
 Final exams (see exam schedule)
 Semester ends, 3:30 p.m.
 Selected senior grades due
 Baccalaureate
 Commencement
 All final spring grades due

MAYTERM

May 14, Tuesday, 8:00 a.m.
 May 31, Friday
 Jun 7, Friday
 Jun 11, 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/ARO website, Calendars & Important Dates/ or Scoop sheet.**

2013-2014 College Calendar

FALL SEMESTER	Aug 30, Friday Aug 31, Saturday Sep 2, Monday TBD Sep 8-11, Sun.-Wed. Sep 16, Monday Oct 4-5, Fri.-Sat. Oct 17-20, Thur.-Sun. Oct 21, Monday, 7:45 a.m. Oct 22, Tues., 11 p.m. Oct 23, Wednesday Nov 11, Monday Nov 27-Dec 1, Wed.-Sun. Dec 2, Mon., 7:45 a.m. Dec 13, Friday Dec 16-20, Mon.-Fri. Dec 20, Fri., 12:30 p.m. Dec 30, Monday, 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 Mid-semester grades due Second half semester courses begin* 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 13, Monday, 7:45 a.m. Jan 19-25, Sun.-Sat. Jan 27, Monday Mar 1- Mar 9, Sat.-Sun. Mar 10, Monday, 7:45 a.m. Mar 10, Monday Mar 11, Tuesday, 11 p.m. Mar 19, Wednesday Mar 31, Monday Apr.17 – Apr. 21, Thur.-Mon. Apr 22, Tuesday, 7:45 a.m. Apr 30, Wednesday Apr 30, Wednesday 7:00 p.m. Apr 30 – May 6, Wed.-Tues. May 6, Tuesday May 6, Tuesday May 9, Fri., (tbd) May 10, Sat., 10:00 a.m. May 19, Monday, 11 p.m.	Classes begin PRAXIS Last day to add full semester courses* March 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 Break Classes resume Last day of classes First exam Final exams (see exam schedule) Semester ends, 3:30 p.m. Selected senior grades due Baccalaureate Commencement All final spring grades due
MAYTERM	May 13, Tuesday, 8:00 a.m. May 30, Friday Jun 6, Friday Jun 10, 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/ARO website, Calendars & Important dates/ 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*, a Houghton graduate 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 graduate 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 particular 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 about Houghton's emergence as a strong, properly equipped and completely accredited liberal arts college. Dr. Stephen W. Paine was president from 1937 until 1972. During these years student enrollment grew to approximately 1,200.

The leadership of Houghton College continued under the guidance of Wilber T. Dayton from 1972 until 1976 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 1,100.

The Center for the Arts was added in 1999. Recent College development has focused on upgrading key facilities and several major buildings within the past few years including the Reinhold Campus Center and most recently, the Paine Science Center in 2011. The College continues to grow its endowment. Significant improvements and changes to outdoor athletic facilities are planned in support of the College's move to NCAA Division III athletics.

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 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.

Houghton College has moved the focus of its work from the former Buffalo Bible Institute site in West Seneca to various sites in the city of Buffalo. Our involvement is now in P.A.C.E., Buffalo City Semester, Wesley Service Corps, and various other ministries of co-curricular education and service.

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, 11250 Roger Bacon Drive, Suite 21, Reston, VA 20190. (703.437.0700.)

The Education Department is a member of the Teacher Education Accreditation Council, One Dupont Circle, Suite 320, Washington, D.C. 20036. (202.466.7236.)

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, N.H., 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.

Other members of the consortium include: Asbury College, Wilmore, Ky.; Bethel University, St. Paul, Minn.; George Fox College, Newberg, Ore.; Gordon College, Wenham, Mass.; Greenville College, Greenville, Ill.; Malone College, Canton, Ohio; Messiah College, Grantham, Pa.; Seattle Pacific University, Seattle, Wash.; Taylor University, Upland, Ind.; Trinity International University, Deerfield, Ill.; Westmont College, Santa Barbara, Calif.; and Wheaton College, Wheaton, Ill.. All are four-year liberal arts colleges with full regional accreditation.

Further information can be obtained by writing to the President, Christian College Consortium, 255 Grapevine Road Wenham, MA 01984.

Council for Christian Colleges and Universities

Houghton College is also a member of the Council for Christian Colleges and Universities (C.C.C.U.), an organization of 116 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. http://www.cccu.org/members_and_affiliates

Western New York Higher Education 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 include: Alfred University, Bryant & Stratton College, Buffalo State College, 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, SUNY Empire State College, SUNY Fredonia, St. Bonaventure University, Trocaire College, and Villa Maria College. For further information, contact the academic records office.

Five-College Committee

Houghton is also part of 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 include: Alfred University, Colgate Rochester Crozer Divinity School, Finger Lakes Community College, Genesee Community College, Hobart and 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, University of Rochester and Wells College. 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 en-

hance self-confidence, discipline, initiative and responsibility. Houghton students in the program have done well in competition for scholarships, which cover full tuition and books, plus a modest living allowance. Up to eight hours of graduation credit may be earned through cross-registration in this program. 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

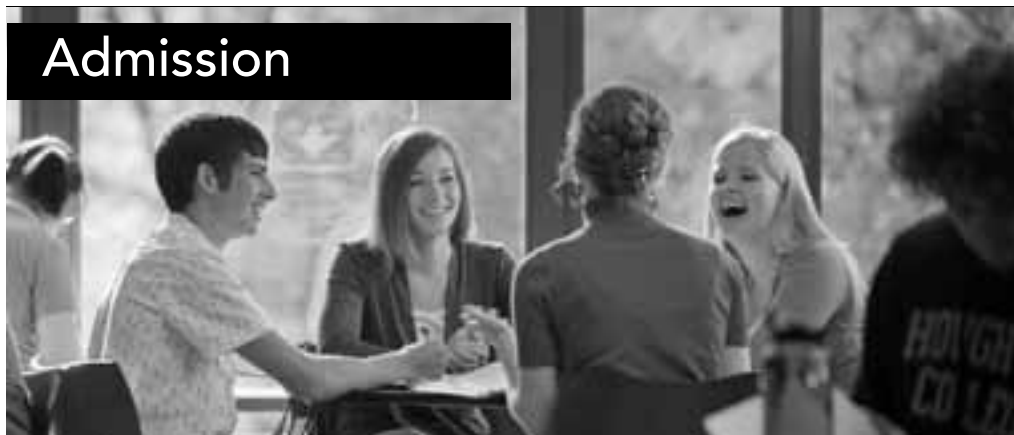
The Houghton College Committee on Harassment Policy and Prevention (CHPP) serves in an advisory role for campus safety and will provide upon request all campus crime statistics as reported to the United States Department of Education. This list is also available through the Safety and Security office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

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).

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 Houghton Honors Programs.

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

Application Deadlines

The Office of Admission responds to applications for admission on a rolling basis. Students applying before December 1st will receive priority consideration for scholarships.

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 or for students who submitted their application by the advertised fee waiver dates.

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; phone: 800.777.2556, ext. 4000; Web: www.houghton.edu/Greatbatch.

Houghton Honors Programs Admission

Upon admission to Houghton, selected students will be invited to apply for admission to the Houghton Honors Programs 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 programs will be made by late March. Approximately 75 students will be admitted to the programs 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/honors.

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.

When considering the SAT, Houghton College will primarily focus attention on the traditional critical reading and math sections of the exam. Writing section scores will be considered, both for admission and scholarship purposes, but will not carry the same weight as the other two sections. The same is true for the optional ACT Writing Test.

Information regarding the SAT may be obtained from www.collegeboard.com. ACT information may be found at 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/ 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), 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 provided that 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.

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



CLEP

College-Level Examination Program (CLEP) tests for advanced placement and/or credit may be taken at Houghton College. Only subject examinations will be accepted from CLEP. Guidelines for the transfer of credit via CLEP can be found here: <http://www.houghton.edu/admission/transfers/apclep.htm>.

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. Standard fees will apply for CLEP tests

taken on campus. More information on CLEP exams may be obtained from the Academic Records Office, the Center for Academic Success and Advising Office, or 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 unless they are 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 approved advanced placement (AP), CLEP, DSST, and Higher Level International Baccalaureate (IB) 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, 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.

Transfer Agreements with Community Colleges

Houghton College has established formal transfer articulation agreements with community colleges across New York State. These agreements allow graduates who earn an A.A. or A.S. degree to transfer directly to Houghton with junior class standing. In most cases, such students are able to complete their Houghton degree in 2 years of full-time study.

Houghton College has also established a 2+2 degree partnership with Monroe Community College in Rochester, NY. Students who are admitted to the 2+2 dual-admission program at MCC and meet specified requirements can be accepted to Houghton and assured of successful credit transfer and completion of their Houghton degree in 2 more years (in most cases). The following academic programs can be completed in the 2+2 program: adolescence education, art, biology, business administration, chemistry, communication, English, history, inclusive childhood education, mathematics, physical/health education, psychology and recreation.

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) 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

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	\$26,774
Health Center and Counseling Fee	\$150
Room rent	\$4,172
Board	<u>\$3,606</u>
Total	\$34,702

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

Tuition rates

Tuition (flat rate: 12-18 hours per semester)	\$13,387
Tuition (per hour, 1-11 hours)	\$1,125
Tuition (per hour, for hours over 18)	\$618
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)	\$618

Houghton Off-Campus Program rates <i>(these fees are in addition to tuition)</i>	
Tanzania Program (includes room, board, fees and airfare)	\$5,062
Honors Program: Contemporary Contexts (includes room, board, fees and airfare)	\$1,500
Honors Program: East Meets West (includes room, board, fees and airfare)	\$1,500
Go ED (includes room, board, fees and airfare from a gateway airport)	\$4,748
Balkans Program (includes room, board, fees; does not include airfare)	\$5,500

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)	\$358
Hour lesson (for 3-4 hours credit)	\$716
Hour-and-a-half lesson (for 5-6 hours credit)	\$1,074

Housing: Room rates per semester are as follows:

Dorm doubles.....	\$2,086
Doubles in townhouses	\$2,271
Gillette dorm single	\$2,520
Dorm triple.....	\$1,804
Gillette quad.....	\$1,489
Dorm singles (except Gillette), double held as single, triple held as double.....	\$3,001
Singles in townhouses	\$3,058
College Farm	\$1,545
Brown House.....	\$2,002

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

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

Full Access Board Plan	\$1,803
14 meals (per week) plan/170 block (per semester).....	\$1,589
7 meals (per week) plan/90 block (per semester)	\$851

College fees

Application	\$40
Art studio lab fee.....	\$137
Certification fee for Wilderness First Responder	\$185
Communication lab fee	\$137
First-Year Student Enrollment Deposit	\$300
Forsyth Learning Commons Fee	\$137
Highlander	\$583
Horsemanship I and II course fee.....	\$190
Horsemanship (<i>all other courses with labs</i>)	\$380
Late registration fee	\$250
Science laboratory fee (<i>per lab</i>)	\$137
Science Honors laboratory fee	\$274
Sickness and accident coverage (<i>12 months</i>)	TBA
Accident only insurance	TBA
Special Test Fee	\$15
Transcript fee (<i>each copy</i>).....	\$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.

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 (within the hamlet of Houghton) under the “community living option” (CLO). A limited number of townhouse and community living options are granted each year. The housing type the student selects for the school year will continue for Mayterm, at additional charge, should the student attend Mayterm.

The college reserves the right, in case of institutional necessity, to reassign college-owned rooms, and it will in such instances reimburse the students involved for any financial loss sustained in such a move. Students who live in residence halls or community houses are financially liable for any damage to rooms or to furnishings.

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 and sophomores are required to be on the full access board plan. All juniors have the option of the 14-meal board plan or the full access board plan. Seniors in traditional residence halls have the option of the 14-meal board plan or the full access board plan. Seniors in the townhouses have the additional option of the 7-meal board plan. The contract period begins after 12p.m. on the Saturday before classes start in the fall semester 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.

Student Fees (General information of student fees is listed above.)

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

Enrollment deposit, required for all first-year students, reserves the student's position in the fall registration list. Due by May 1 for all new 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.

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. Timely payments will reduce time and money spent being deregistered from classes and incurring a late registration fee. Payments can be made online using your checking or savings account at houghton.afford.com. 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 the month (beginning month depends on specific plan you choose) and end in March. Enrollment can be done online at houghton.afford.com or by calling 1-800-343-0911. If interested, complete information about the plan is available from the Student Financial Services Office. Checks, money orders, and wire transfers are always accepted as well and should be made payable to Houghton College and sent to the Student Financial Services Office.

Off-campus Study

Houghton College students who are enrolled in a Houghton-operated or Go ED program will normally receive their Houghton financial aid. Students receiving ETAG need to check eligibility for Go ED. Limited Houghton aid is available for students who enroll in approved affiliated programs; application is required. The cost of these programs varies, so each student must contact the OCP office and Student Financial Services for information regarding personal financial details. For more specific information regarding off-campus programs, please refer to the off-campus section of the catalog.

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.

Houghton College Financial Refund Policy

Refund Policy

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.

Houghton College uses student accounts to assess charges and apply payments and credits against those charges. Financial aid payments are applied to student accounts after the close of the add/drop period. If a student's account balance is a credit, it is the policy of the college to refund the credit to the student in a timely manner under most circumstances. Credit balances caused by financial aid are refunded after careful evaluation of the student's account and eligibility for aid. If a credit balance refund is due to the student, the refund is made to the student within 14 days, as required by the federal regulations for Title IV funds. Refunds will typically be issued in the form of a check made payable to the student and mailed to the student's preferred address. The student may also request to pick the check up on campus at the Student Financial Services Office.

If the student wishes to keep the credit balance on his or her student account, the Student Financial Services Office must have a written and signed request from the student, as required by the federal regulations for Title IV funds. However, a credit balance due to Title IV funds may not be carried forward from one academic award year to the next in any circumstance. At the end of the award year any credit from Title IV funds in the amount of \$1.00 or more is automatically refunded to the student.

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, Federal Supplemental Educational Opportunity Grants (FSEOG), Teach Education Assistance for College and Higher Education Grants (TEACH), Iraq and Afghanistan Service Grant, Leveraging Education Assistance Partnership (LEAP) and Special LEAP (SLEAP) Grants.

Eligibility for refund is dependent on a number of factors and will be determined by the Student Financial Services Office.

In the case of course cancellation by the institution, credit equal to 100% of tuition and fees will be given. Students suspended for academic or disciplinary reasons will not be entitled to a refund of tuition, fees, or housing.

A credit balance on student accounts as a result of withdrawal will be refunded in a minimum of two weeks after the student has officially withdrawn through the Academic Records Office.

Change in Enrollment Status

If a student changes enrollment status after he or she has received a refund based on financial aid, the student may be required to repay all or part of the aid received to Houghton College or to the appropriate federal or state aid programs. Students receiving federal aid who change enrollment status or withdraw from the college will have federal aid adjusted in accordance with formulas prescribed by the Federal Title IV Program.

A student who withdraws from Houghton College receives only the balance that remains on his or her account after the appropriate refund calculations have been made by the Student Financial Services Office in accordance with the Return of Federal Title IV Funds Policy below.

A student's withdrawal date is the date the student begins the institution's withdrawal process or officially notifies 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. If a student stops attending classes and begins the withdrawal process but remains on campus utilizing his or her room and/or board for an additional amount of time, separate dates will be used to calculate room and board refunds. Furthermore, board refunds take into account the amount of flex dollars the student has used. Health insurance coverage, if purchased through the college, is non-refundable to the student. However, the health insurance policy remains active and the student may continue to use the health insurance for the period purchased. 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.

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.

Return of Federal Title IV Funds Policy

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.

In accordance with federal regulations, when financial aid is involved, refunds are allocated in the following order: Federal Direct Unsubsidized loans, Federal Direct Subsidized 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 lastly, the student.

The following outlines the policy in greater detail.

Funds Returned

Houghton College returns unearned funds received from Federal student assistance programs to the proper program accounts or lenders in accordance with Federal Title IV student assistance regulations, as amended,

under 34-CFR, section 668.22(d) of the Reauthorization of the Higher Education Act of 1965.

A student receiving aid from Federal Title IV programs is required to complete a minimum number of hours for which aid was received. If a student completely withdraws from school during the semester, or stops attending but fails to officially withdraw, the student may be required to return the unearned part of the funds received to help pay educational expenses for the semester. Liability for return of Federal Title IV funds will be determined in accordance with the following guidelines:

- If a student remains enrolled and attends class beyond the 60 percent mark of the semester in which aid is received, all federal aid is considered earned and not subject to this policy.
- If a student completes the institution's withdrawal process before the 60 percent mark of the semester, a pro-rated portion of the federal aid received must be returned to the federal aid programs equal to the percentage of the semester remaining.
- If a student fails to complete the institution's withdrawal process but stops attending classes, a pro-rated portion of the federal aid received, based on the last documented date of attendance, must be returned to the federal aid programs. If the institution is not able to document the last date of attendance, one-half of all federal aid received during the semester must be returned to the federal aid programs.

Return of Federal Title IV funds will be distributed according to statutory regulations. Worksheets/formulas provided by the U.S. Department of Education will be used to determine the amounts and order of return. If a student's share of the return amount exists, the student will be notified and allowed 45 days from the date of determination to return the funds to the Student Financial Services Office of the institution for deposit into the federal programs accounts. If the student fails to return the amount owed within the 45-day period, the amount of overpayment will be reported to the U.S. Department of Education (DOE) via the National Student Loan Database (NSLDS) and the student will be referred to the DOE for resolution of the debt. When necessary, unearned aid will be refunded to the appropriate programs based on these regulations.

Funds Disbursed

When a student officially or unofficially withdraws, the Student Financial Services Office will determine if the student is entitled to a post-withdrawal disbursement. Post-withdrawal disbursement occurs when the student receives less federal student aid than the amount earned (based on the withdrawal date). Houghton College will then offer a disbursement of the earned aid that was not received. All post-withdrawal disbursement offers will be made within 14 days of the date Houghton College determines that the student withdrew.

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

Scholarships, Grants and Loans

Student Financial Services (SFSO)

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 at www.fafsa.ed.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 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 Student loan proceeds may be received by electronic funds transfer (EFT). 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 academic 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 (FCWS)

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 10 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 must not have earned a bachelor's degree. This award is a grant, not a loan. For the 2012-13 academic year the maximum Pell Grant is \$5,500.

Federal Supplemental Education Opportunity Grant (FSEOG)

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 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 interest rate is 5%.

Federal Subsidized Direct Loan

Freshmen may borrow \$3,500; sophomores \$4,500; juniors and seniors \$5,500 (based on conditional classification.) The interest rate for new borrowers is currently 3.4%. The Federal Subsidized 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 Subsidized 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.

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 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 student borrowers. Applications and information may be obtained at 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 (TAP)

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 nine 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 2012-2013 academic year, the maximum TAP award for first-year students is \$5,000.

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

Satisfactory Academic Progress requirements for federal and institutional financial aid

According to Title IV 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. For a four-year (eight-semester) bachelor's degree program, there is a 12-semester maximum for the receipt of federal aid. (150% rule)

Students who fail to make satisfactory academic progress will be subject to the following:

Financial aid warning

The first time that a student fails to meet the satisfactory academic progress requirements, he or she will be sent a financial aid warning letter which will indicate that the student is in danger of losing aid eligibility

unless he or she improves his or her academic record. A student on financial aid warning may continue to receive financial aid for the next payment period.

Financial aid probation

The second time that a student fails to meet the satisfactory academic progress requirements; he or she will lose eligibility for financial aid. However, the student may petition the Committee on Satisfactory Academic Progress to request a one-time waiver of the necessary academic requirements. Petitions will be considered when accompanied by written evidence of injury or illness, significant personal difficulty, family trauma or other special circumstances. This appeal must also include an academic plan for successfully meeting the satisfactory academic progress requirements. If the student is approved for this one-time waiver, he or she will be considered to be on financial aid probation and will be eligible to receive financial aid for the next payment period. Students can appeal the 150% rule due to extenuating circumstances such as illness, full-time employment, significant personal difficulty, family trauma, or other special circumstances. This applies to all students (including P.A.C.E.) and the appeal process is the same as above.

Unsatisfactory academic progress

If a student's appeal is denied by the Committee on Satisfactory Academic Progress or if the student fails to meet the requirements after being on financial aid probation, then the student is no longer eligible to receive federal and institutional financial aid. Aid eligibility may be reinstated in the future if the student successfully attains the necessary satisfactory academic progress requirements.

Transfer of credits from other schools

When a student (including P.A.C.E.) transfers courses to Houghton from another college, the transfer credit assessor or academic dean's office will determine the number of credit hours acceptable toward a Houghton degree. The number of credit hours accepted will be counted as both hours attempted and hours completed. Grades from the other college will not be considered in the GPA calculation.

Change of Program

In the event of a change of major, the hours and grades earned in the first major are considered in making satisfactory academic progress determinations.

Repeating of courses

Students have the option of repeating courses in which they earned D+ or lower. In such cases, the higher grade will count in GPA calculations, but the course credit hours earned will count only once. Both courses and both grades remain on the transcript with an indication of which course is counted. A student may only repeat a previously passed course once. Failed courses may be repeated until successfully passed. Students needing to repeat a course more than twice should consult with the Student Financial Services Office. Repeating a course may influence a student's financial aid or athletic or other co-curricular eligibility.

Withdrawals and incomplete courses

Courses from which a student withdraws may have an impact on GPA, depending on the date of withdrawal. The credit hours of the course count toward hours attempted for satisfactory academic progress purposes (even if they do not count in GPA calculations). Any incomplete courses are counted in hours attempted. When the "I" is changed to an actual grade, the course will be considered complete and the GPA reviewed for satisfactory academic progress purposes.

Audited and remedial courses

Audited courses and courses taken which are intended to bring a student to readiness in terms of language facility, performance level or specific content will be excluded from the satisfactory academic progress requirements.

Satisfactory Academic Progress Chart for Federal and Houghton College Financial Aid

Semesters	Min. credit hrs. enrolled completed	Credit hrs. that must be	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

Students must successfully complete the following percentages of all cumulative credits attempted.

First year	55%
Second year	60%
Third year	65%
Fourth	70%
Fifth	70%
Sixth	80%

Satisfactory Academic Progress requirements for the New York State Tuition Assistance Program (TAP)

New York State uses a different satisfactory academic progress standard than the federal Title IV requirements. All satisfactory academic progress policies mentioned above apply to state aid except for the differences described below:

Transfers

Transfer students and students who return after an absence of at least one year are considered to be making satisfactory academic progress by their admission acceptance. The assessment and information concerning the number of semesters the student previously received aid will be used to place the student at the appropriate point on the academic progress chart. Placement may be either in accord with the number of payments received or the number of credit hours earned whichever is more beneficial to the student.

Waiver

Students who are not meeting the New York State satisfactory academic progress requirements may apply for a one-time waiver as described in the financial aid probation section listed above. If a waiver is granted, the student will be given the next term before advancing to the next level on the chart.

New York State Satisfactory Academic Progress Chart

For TAP and other state awards, students must meet the following requirements:

Satisfactory Academic Progress Chart for New York State Tuition Assistance Program (TAP)

Semesters	Min. credit hrs. enrolled	Credit hrs. that must be	Min. accrued credit hrs. completed	Cum. Grade-point average
1	12	6	6	1.5
2	12	6	15	1.8
3	12	9	27	1.8
4	12	9	39	2.0
5	12	12	51	2.0
6	12	12	66	2.0
7	12	12	81	2.0
8	12	12	96	2.0
9	12	12	111	2.0

HOUGHTON COLLEGE SCHOLARSHIPS AND GRANTS 2012-2013

Houghton College Academic Scholarships

Academic Scholarships are awarded to outstanding first -year and transfer students who are accepted for admission to Houghton College and who exhibit scholastic achievement and academic potential.

First-year students:

First-year students with a combined score of 1100 or higher on the SAT (critical reading and math sections) or a composite score of 24 or higher on the ACT and a grade-point average (GPA) of 3.2 or higher will be considered for a Houghton College Academic Scholarship. (For more information on GPA calculations and requirements, contact the admission office or visit the Houghton College website.) These scholarships are renewed annually providing the student maintains at least a 3.0 GPA at the end of each year. Full-time attendance is required. For more information on GPA calculations, requirements and amounts, contact the admission office or visit the Houghton College website.

Transfer students:

Transfer students with a college GPA of at least 3.25 will be considered for a Houghton College Academic Scholarship. Transfers who are members of Phi Theta Kappa and have a cumulative GPA of 3.5 or higher will be guaranteed an academic scholarship.

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
- 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

Performance Scholarships

Performance Scholarships are awarded to students who display exceptional talent in fine arts. Art and music faculty may nominate candidates to the Student Financial Services Office. Awards are renewed annually if satisfactory participation in the area of performance and a minimum 2.0 GPA are maintained.

Timothy R. Fuller Neighbor Grants

Enrolling students who have resided in or have attended a high school in Allegany County (N.Y.), Cattaraugus County (N.Y.), Livingston County (N.Y.), McKean County (Pa.), Potter County (Pa.), Steuben County (N.Y.), or Wyoming County (N.Y.), 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.

Canadian Grants

Canadian students will receive a Canadian Grant of up to \$4,000 per year. Financial need and the exchange rate will be factors in determining eligibility. The student must be a matriculated full-time student who is a Canadian citizen and whose residence is in Canada.

Wesleyan Grants

Students who regularly attend a Wesleyan church will receive a Wesleyan Grant in the amount of \$1,500.

Wesleyan PK/MK

Children of an ordained Wesleyan minister or a Global Partners missionary will receive a minimum of half-tuition in Houghton College grants and scholarships.

Houghton College Matching Scholarships

The Houghton College Matching Scholarship program creates the possibility of an exciting partnership between the local church and Houghton College. This program provides an opportunity for members to support the ongoing spiritual growth of their students. They will also be encouraging these students to attend a Christian college with a national reputation for academic excellence.

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 toward 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 (\$375 per term).

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.

Willard J. Houghton Ministerial Scholarships

A grant of \$5,000 per year is awarded to students who are preparing for the Wesleyan pastorate. To be eligible, the student must enroll with this or her local District Board of Ministerial Development.

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.

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 Scholarship for Canadian Students (Ontario, Canada)
Houghton College Foundation of Canada Scholarship
Kenneth and Phyllis Canary Scholarship (Adirondack Region)
Jesse Crowder Jr. Scholarship (Chesapeake Wesleyan)
Dayton Champlain District Scholarship
Chester and Marjean Dayton Scholarship (Champlain District)
Emerson Foundation Scholarship (Central NY)
Finger Lakes Chapter Scholarship
Rose and Genevieve Galuteria 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)
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)
Wetherbee Scholarship (International)

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
James E. Spear Memorial 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
Clint A. Clifford Endowed Scholarship
Frederick C. Denham Organ Scholarship
Florence B. Dodds Scholarship
Charles Finney Endowed Scholarship (Organ or Church Music)
Dr. & Mrs. DeVere Gallup Scholarship
Ethel Boyce Johnson Music Scholarship
Walter T. Knox Scholarship
Robert R. Mackenzie Scholarship
Presser Foundation Scholarship
Dr. George Seher 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

George I. Alden Trust Scholarship
Laurel Davies Alexander Scholarship
Barnes-Eldrod Scholarship
Alfred and Hazel Benson 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
Cushing Family Scholarship
Thomas Danks Scholarship
Ethel Davis Scholarship
Deerfoot Lodge Scholarship
Sam and Louise Dominguez Scholarship
Education Assistance Limited
Bess Fancher 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
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
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
Layton and Olive Vogel Scholarship

Scholarships for Business Majors

Arnold Cook Scholarship
Grover and Ingrid Jensen Scholarship
Lazares Lazarides Memorial Scholarship
Reynolds-Santor Women in Business Scholarship
Hans Rothenbuhler Scholarship
Janet Decker Steiner Memorial Scholarship
Gerald and Mildred VanderVeen Scholarship Fund

Education Scholarships

Colossians 1:9-12 Scholarship
Joan C.V.G. Holman Scholarship
Emilie and Frank Mazza Endowed Scholarship
Raymond and Ethel Meahl Scholarship
Clifford W. and Katherine T. Thomas Scholarship
Dean V. and Doris Bain Thompson Scholarship
Lucele Hatch Wilson Scholarship

English Scholarships

Lionel Basney Memorial Endowed Scholarship
Daniel Cutter Literature Scholarship
Whitman & Dorothy Daniels
Mary Alice Baker Hazlett Scholarship

Science and Math Scholarships

Emily Markham Adelmann Scholarship
John M. Andrews III Scholarship
Benninger Scholarship
Kenneth Boon Scholarship
John G. Brokaw III Scholarship
Dorah Burnell Memorial Scholarship
Colossians 1:9-12 Scholarship
James A. Comstock Memorial Scholarship
Hazel I. Crocker Scholarship
Howard A. and Helen C. Crosby Scholarship
Rachel Davison Fee Scholarship
Dr. & Mrs. DeVere Gallup Scholarship
Alan R. Johnson Scholarship
Clyde E. Keeler Memorial Scholarship
Adrien R. LaBombarde Math Scholarship
George E. Moreland Scholarship
Jeffrey Osgood Memorial Scholarship
Osgood Science and Academic Scholarship
Richard W. Price Scholarship
Dr. and Mrs. Gustave Prinsell Scholarship
Jeffrey R. Prinsell Scholarship
Crystal Rork Scholarship
Dr. George Seher Scholarship
Shannon Scholarship
Cora Esther Sparks Memorial Scholarship
Ethlyn Stebbins Scholarship
Jeff Telego Memorial Scholarship
Arvis and Mavis Tucker Scholarship

Special Category Scholarships

Abdullah Scholarship: equestrian
Betts Scholarship: transfer students
Nora Rigall Calhoon Scholarship: communication
Chastain Endowed Scholarship: minority or disabled
Gordon Ferm Presbyterian Scholarship
Gallagher Family: Salvation Army Scholarship
Ruth Ortlip Gibson Memorial Scholarship
William and Diane Hein Award: political science
Winston Johnson Scholarship: sociology
Edna Lennox Scholarship: communication
Liberal Arts Scholarship
Emilie and Frank Mazza Endowed Scholarship: psychology
Mephibosheth Scholarship: physically challenged
Bruce Merritt Memorial Scholarship: pre-law
S.W. Paine/Wycliffe Scholarship: linguistics
David C. Pollock Preacher and Missionary Kids Scholarship
Jennifer A. Roorda Scholarship: psychology
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
Valk Presbyterian Endowed Scholarship: Reformed Presbyterian or Lutheran
Weir Scholarship: resident assistant

Artist A. Wilcox Scholarship: art
Willett Alumni scholarship
Daniel S. Willett Endowed Scholarship: communication or writing
Fred and Floy Willmott United Methodist Scholarship: United Methodist
Wight Memorial Scholarship: daughter of a farmer

High School Grant

High school students may take up to seven hours per semester and receive a study grant equal to 50 percent of the tuition. This applies only to standard courses and excludes independent studies, online courses, tutorials, internships, applied and activity courses in the music, art, communication, and physical education/recreation (including equestrian) departments. 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. Students are only eligible to take a specific course if room is available under the normal limits.

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:

Name Loan Funds

Jennie E. Alexander Fund
*Darrow Basney Fund
Haven and Marie Burk Fund
*Lucius H. & Mary E. Fancher Fund
Kenneth Hill Glasier Fund
Lee Christian Service Loan Fund
Henry F. Meeker Jr. Fund
George M. Press Fund
Clarence Watson Fund
United Wesleyan College

Established by

Bequest
Professor & Mrs. Eldon Basney

Children and Grandchildren
The Rev. Walter C. Glasier
Bequest
Miss Harriet Meeker
Bequest
Bequest

****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 Dean for Academic Affairs

The associate dean for academic affairs 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 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, History and Political Science, Intercultural Studies, Leisure 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 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 Equestrian Studies may count toward graduation unless student is in the Recreation major with an 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.

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 hours

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

INTS 102 Transitions 102: Succeeding at Houghton (1)

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
Art Education	BS	0831
Art	BFA (<i>pending</i>)	
<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>		
Accounting	BS	0502
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
Art Education	BS	0831
Inclusive Childhood Education	BS	0802
TESOL with Culture, Language & Linguistics	BS	1508
<i>Department of English and Writing</i>		
English	BA	1501
Writing	BA, BS	1507
<i>Department of History and Political Science</i>		
History	BA	2205
Political Science	BA	2207
<i>Department of Intercultural Studies</i>		
Intercultural Studies	BA	2210
<i>Department of Leisure Studies</i>		
Recreation	BS	0835
<i>Department of Mathematics and Computer Science</i>		
Computer Science	BS	0701
Mathematics	BA	1701
General Science	BS	4902
<i>Greatbatch School of Music**</i>		
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
Physical-Health Education	BS	0835

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

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 Leisure Studies: Marcus W. Dean
Department of Intercultural Studies
Department of Leisure Studies
Department of World Languages and Literatures

Associate Dean for the Natural Sciences and Mathematics: Keith A. 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: Stephen W. Plate

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 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 dean for academic affairs. 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.) Students also need to meet a required number of liberal arts credits for their specific degree (93 for the BA and 62 for the BS).

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.

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- 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 Academic Records website.)

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 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”. Half semester courses do have different dates for adding, dropping and withdrawing. Check the website. **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.

Dual-counting

Dual-counting addresses the situation in which a single course satisfies requirements in more than one major or minor subject. A student's program in each major must have a minimum of 24 distinct credits and in each minor a minimum of 12 distinct credits. Credits beyond these minimum distinct credits may be dual-counted as permitted by individual major/minor requirements. That is, a course that meets requirements for both a major and a minor (or two majors, etc.) may be used toward both if such a course is beyond the minimum 24/12 distinct hours for the major/minor. This policy also applies to courses that are cross-listed, (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 dual-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 dual-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 dean for academic affairs. Written (email is acceptable) approval by the faculty member who is being asked to move an exam should be forwarded to the associate dean for academic affairs.

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.

S-Satisfactory work done (equivalent to a regular grade of C- 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.

Midterm grade policy: Midterm grades are for all first-year students and any upper class student who has a C- or lower.

Satisfactory/D/Fail Coursework

In order to encourage students to sample challenging and unfamiliar coursework they might otherwise avoid, full-time juniors and seniors in good standing with the college may take up to four hours per semester, but no more than 12 hours cumulatively, of Satisfactory/D/Fail coursework. Work equivalent to a letter grade of C- or better is required in order to earn "Satisfactory". When a student is taking the course for S/D/F, Ds and Fs are included in the grade point average. In order to take a course S/D/F, students must be carrying at least 12 hours of standard, graded coursework during the same semester. Faculty members will not be made aware of whether any students in the course are taking it S/D/F and will report all grades for the course as regular letter grades. Because the S/D/F option is intended to encourage student exploration of electives, it may not be used for courses meeting requirements in a student's major, minor, or concentration, or for their pre- and co-requisites, or for Integrative Studies requirements.

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 dean for academic affairs (ADAA), in writing, again within 10 working days. The ADAA shall investigate carefully and render a decision, which shall be final. If the decision is to reconsider the grade:

- a. The ADAA shall, within 10 days, form a panel of uninvolved, tenured faculty from the instructor's department. (From a designated pool, the ADAA, 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 coursework, regular letter grades are not recorded on the transcript.

Repeating a Course

Students have the option of repeating courses in which they received D+ or lower. In such cases, the higher grade will count in GPA calculations, but the course credit hours earned will count only once. Both courses and both grades remain on the transcript with an indication of which course is counted. A student may only repeat a previously passed course once. Failed courses may be repeated until successfully passed. Students needing to repeat a course more than twice should consult with the Student Financial Services Office. Repeating a course may influence a student's financial aid or athletic or other co-curricular 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 (minimum of twelve hours), 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 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 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 dean for academic affairs 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 associate dean for academic affairs' 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 dean for academic affairs with any questions.

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 associate dean for academic affairs.

Academic Dismissal

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

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

A student dropped from the student body for the above reason and readmitted by the 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.

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. 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.

Students wanting to use an independent study to become full-time **MUST** submit their independent study paper work during the semester prior to the semester in which they intend to enroll. IF a student is not full-time prior to billing, the bill and financial aid will be incorrect due to the missing hours. IF a student will be considered full-time without the independent study the absolute cutoff date for submission is on or before the **seventh calendar day** after the first day of classes.

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 dean for academic affairs 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

Mayterm begins on the Tuesday immediately following Commencement. 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 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 dean for academic affairs 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.

Center for Academic Success and Advising

Houghton College offers learning support for students through the Center for Academic Success and Advising Office. Any student may come to CASA 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 the Center for Academic Success and Advising 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 the Director of the Center for Academic Success and Advising (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 the Center for Academic Success and Advising or from the Admission Office.

Academic Petitions

Each student at Houghton may petition the associate dean for academic affairs, 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
WSP	Course offered when schedule permits
F13	Course offered in fall, odd-numbered years
F12	Course offered in fall, even-numbered years
S14	Course offered in spring, even-numbered years
S13	Course offered in spring, odd-numbered years
F/S	Course offered in two-semester sequence
F/S 13-14	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.

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
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 History and Political Science

HIST	history
POLS	political science

Department of Intercultural Studies

ANTH	anthropology
INCL	intercultural studies
LING	linguistics
MISS	missions

Department of Leisure Studies

EQST	equestrian studies
REC	recreation

Department of Mathematics and Computer Science

CSCI	computer science
MATH	mathematics

Greatbatch School of Music*

MCHU	church music
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
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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
URMN	urban ministry
Department of World Languages and Literatures	
FREN	French
GERM	German
SPAN	Spanish
Interdisciplinary/Special Studies	
CLLS	college life and leadership
INDS	interdisciplinary studies
INTS	integrative studies
Adult Learning Opportunities	
ADC	adult degree completion

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.

New Student Programs

The mission of the New Student Programs Office and the Transitions program 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 and transitions programs help students and their families gain the information and interpersonal support they need to be successful.

The four components of the Transitions program at Houghton College are Transitions 101: Connecting to Houghton, Fall Orientation, and Transitions 102: Succeeding at Houghton (a required course for first-year students during their first semester on campus), and selected components of H.E.L.P. Day in the spring semester of the first year.

The Transitions program begins officially with Transitions 101: Connecting to Houghton, during the spring prior to enrollment. A parallel slate of programs exists for parents and students. This day-long experience gives students the opportunity to review their fall course schedule, to get to know peers, faculty, and orientation leaders, and to take care of other important business such as financial aid. After spending a day on campus as part of Transitions 101, students and families report a sense of belonging, a sense of confirmation in their choice, and a sense of confidence that they will have a successful transition when classes begin.

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.

INTS 102 Transitions 102: Succeeding at Houghton (1, F)
Consideration of topics essential to success as a student in Houghton's Christian academic community. Introductory experiences in individual and collaborative reading, writing, research and discussion facilitated by Houghton student and faculty leaders. Content focused on the Houghton Reads book (with support for summer reading) and related supplementary materials. Exploration and understanding of the Christian perspectives and behavioral expectations embodied in the Houghton Community Covenant. Consideration of other selected social, intellectual and theological issues pertinent to Christian life in a global twenty-first century world. Orientation to successfully navigating and utilizing the offices and services of the College. Required for all first-year and transfer students; fulfills the IS: Transitions requirement.

College Life and Leadership

COURSE DESCRIPTIONS

CLLS 102 College Study Methods (P/U) (1, F&S)
Improves 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.

CLLS 202 Transitions 102 Group Leadership (P/U) (0-2, F)
Faculty and staff-supervised training and experience leading groups of first-year students in discussion sessions and other coursework as part of the Transitions 102 course. For sophomores, juniors and seniors, chosen by application in the prior year.

CLLS 203 PSL: RA Training and Experience (P/U) (0-1, F&S)
Special training course in spring and August, with credit awarded after in-service training for the fall. Students will be introduced to key topics related to Residence Life and Housing and receive training specific to the Resident Assistant position at Houghton College.

Integrative Studies

Faculty: Peter C. Meilaender (Director)

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 core of a liberal arts education at Houghton is found in the college's Integrative Studies requirements, which all students must satisfy. The Integrative Studies requirements embody an interdisciplinary vision of the

skills, content, and ways of thinking “that equip students to lead and labor as scholar-servants in a changing world” (in the words of the Houghton College mission statement). They consist of core competencies that students must demonstrate, along with a set of distribution requirements across the college’s main curricular areas of study.*

Competencies

All students must demonstrate basic competency--either through successful completion of an approved course or through prior high school experience (criteria for meeting competencies can be found at the Academic Records Office/Academic Information webpage) --in four key areas essential to success in college and in life:

- 1. Writing: All students must demonstrate basic writing competency, typically in the first year.
- 2. Quantitative Literacy: All students must demonstrate basic competency in mathematical reasoning.
- 3. Foreign Language: All students must demonstrate basic competency, equivalent to a year of college study, in a language other than English.
- 4. Health and Wellness: All students must develop habits of lifetime wellness by taking an introductory course covering basic topics in wellness (typically in the first year), as well as three physical activity courses (typically one each subsequent year): an indoor activity, an outdoor activity, and an activity combined with specific wellness laboratory exercises.

Distribution Requirements

All students must take coursework in the following areas:

- 1. Transitions: During their first year, all students take a one-hour course introducing them to college and the liberal arts.
- 2. Faith Foundation: All students take two courses, one in Bible (typically in the first year), the other in Christian Theology. (Courses must be selected from the approved list.)
- 3. Culture: All students take four courses in the humanities, one in each of these disciplines: History (typically in the first year), Literature, Philosophy, and the Fine Arts. (Courses must be selected from the approved list.)
- 4. Creation: All students take two courses in math or natural science. One of the two must be a laboratory science. Students who have not otherwise satisfied the Quantitative Literacy Competency also take a math course; students who have satisfied it may choose between math and science for their second course. (Courses must be selected from the approved list.)
- 5. Community: All students take two courses in the social sciences, chosen from different disciplines: Anthropology, Communication, Economics, Political Science, Psychology, or Sociology. (Courses must be selected from the approved list.)

*Specific courses have been approved as satisfying each of the requirements. A complete list of the approved courses can be found online at Academic Records Office/Academic Information webpage.

Houghton College Integrative Studies Requirements - BMus

A modified list of IS requirements for students pursuing the BMus degree can be found at Academic Records Office/Academic Information webpage.

COURSE DESCRIPTIONS

INTS 102 Transitions 102: Succeeding at Houghton (P/F) (1, F)
Consideration of topics essential to success as a student in Houghton’s Christian academic community. Introductory experiences in individual and collaborative reading, writing, research and discussion facilitated by Houghton student and faculty leaders. Content focused on the Houghton Reads book (summer reading distributed during Transitions 101 days) and related supplementary materials. Exploration and understanding of the Christian perspectives and behavioral expectations embodied in the Houghton Community Covenant. Consideration of other selected social, intellectual and theological issues pertinent to Christian life in a global twenty-first century world. Orientation to successfully navigating and utilizing the offices and services of the College. Required for all first-year and transfer students; fulfills the IS: Transitions requirement.

INTS 153 Honors: East Meets West (9, S; 3, M; 3 F)*
(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. Liberal Arts.

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 2nd Science. Liberal Arts.

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. Liberal Arts.

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. Liberal Arts.

INTS 161 Foundations of Contemporary Contexts Honors (1, F12)*
Introduction to the topics and methods of the Contemporary Contexts honors program. Analytical and critical reading and writing, coordinated with seminar-style discussion and other group activities. Liberal Arts.

INTS 162 Contemporary Contexts Honors: Modernity and the Search for Meaning: Origins and Issues (8, S13)
Integrative exploration of Western modernity from the Reformation to the crisis at the turn of the 20th century. Investigates modern understandings of what it means to be rational, social, material, free, a self, and "modern". Background lectures interspersed with frequent seminar-style discussions of primary texts and works of art; regular paper assignments. Liberal Arts.

INTS 163 Contemporary Contexts Mayterm: *Fin de siècle* Vienna and the Modern Search for Meaning (3, M13)
Course conducted in Vienna. Integrative exploration of the crisis of Western modernity in the late 19th and early 20th centuries, focused on developments in philosophy, literature, politics, and the arts in turn-of-the-century Vienna. Background lectures interspersed with frequent seminar-style discussions of primary texts and works of art and music; regular excursions to visit museums and important sites in Vienna. Liberal Arts.

INTS 164 Contemporary Contexts Honors: Modernity and Postmodernity (4, F13)
Integrative exploration of Western Modernity from World War I to the present, with special consideration of the meaning of "postmodernity". Investigates modern and postmodern understandings of what it means to be rational, social, material, free, a self, and "postmodern". Background lectures interspersed with frequent seminar-style discussions of primary texts and works of art; regular paper assignments. Liberal Arts.

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. Liberal Arts.

INTS 235 Interpreting the Environment: Trail Development (2, 3, or 4, WSP)
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 (major and minor)

Department of Business and Economics: Kenneth J. Bates, chair. Paul D. Young, Associate Dean
Faculty: Kenneth J. Bates, Robert A. Black, Richard A. Halberg, Daniel C. Minchen, Lois A. Ross
E-mail: business@houghton.edu
Phone: 585.567.9440

Mission: To develop the character and intellect of our students and to equip them with skills to be Christ-like scholar-servants who will steward the resources of for-profit, not-for-profit, and service organizations.

Major: 52 hours in the major; 12 in Co-requisites:
Co-requisites:

BADM 45	Spreadsheet competency	0
ECON 201	Intro to Economics	2
ACCT 211	Financial Accounting.....	3
ACCT 212	Managerial Accounting.....	3
ECON 210, 211	Principles of Micro and Macroeconomics	2, 2
	Total	12

Major required courses:

(includes a minor in Business Administration):

BADM 212	Principles of Management.....	4
BADM 213	Business Law I or	
BADM 214	Business Law II	4
BADM 218	Marketing Principles	4
BADM 301	Business Communication	2
BADM 302	Investment Management.....	4
BADM 307 and 308	Statistics I/II.....	2, 2
Or BADM 309	Statistics.....	3
ACCT 311, 312	Intermediate Accounting I & II.....	3, 3
ACCT 314	Cost Accounting.....	3
ACCT 315	Auditing	4
ACCT 316	Federal Income Tax	4
BADM 406	Financial Management	4
ACCT 418	Advanced Accounting	3
ACCT 421	Internship	2
BADM 481	Senior Capstone: Business Strategy & Policy.....	4
	Total.....	52

62 of the 124 undergraduate college credits must be in liberal arts courses.

Students interested in licensure as a CPA (Certified Public Accountant) must have 150 credits, normally a combination of undergraduate and graduate coursework.

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 in accounting or business 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 waive graduate level coursework. The courses must also be no older than five years upon matriculation into the MBA degree program. Students can consult with their advisor to obtain information about the courses selected for this program.

CPA exam preparation: The Houghton accounting major qualifies students to take the CPA exam upon graduation.

CMA exam preparation: Students considering the Certified Management Accountant designation are encouraged to take Operations Management in addition to required coursework. The Houghton accounting major qualifies students to take the CMA exam.

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

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 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.

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 meets one Community. Liberal Arts.

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 meets one Community. Liberal Arts.

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, F13, F15)
An introduction to basic legal environment of business, contracts, sales and leases, and negotiable instruments. Liberal Arts.

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- BADM 214 Business Law II** (4, F12, F14)
Basic law covering forms of business organization, agency, bankruptcy, government regulations, and professional liability. Liberal Arts.
- BADM 218 Marketing Principles** (4, F)
Factors in product development, pricing, distribution, and promotion of consumer and business goods and services.
- BADM 301 Business Communication** (2, F&S)
A study of communication theory and principles as applied to business writing and oral communication. Community: Communication. Liberal Arts.
- 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 307 Statistics I** (2, F&S)
Descriptive statistics: Measures of central tendency and variability, skewness, frequency distributions, graphing, discrete and continuous probability functions, and sampling. Prerequisite: Spreadsheet Competency. Liberal Arts.
- BADM 308 Statistics II** (2, F&S)
Inferential statistics: Sampling distributions, estimation, hypothesis testing, t-tests, ANOVA, Chi-Squared, correlation, and regression. Prerequisite: BADM/ECON/PSY/SOC 307 or equivalent by placement test. Quantitative Literacy Competency. Does not meet Creation Requirement. Liberal Arts.
- BADM 309 Statistics** (3, M)
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. Does not meet Creation Requirement. Liberal Arts.
- 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 notes, bonds, pensions, leases, taxes, equity transactions, and on preparation of cash flow statements. Prerequisite: ACCT 311.
- ACCT 314 Cost Accounting** (3, F13, F15)
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, S15, S17)
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, F12, F14)
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, S13, S15)
Design, maintenance, monitoring of information systems. Includes systems and audit concepts. Prerequisites: Spreadsheet Competency, ACCT 211, 212.
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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 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.

ACCT 418 **Advanced Accounting** (3, S14, S16)
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, WSP)
Group study of special topics.

BADM 481 **Senior Capstone: Business Strategy & Policy** (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.

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
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.

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, Lisbon, and Madrid.

Art Major: BA
Art with Studio Concentration (44-52 semester hours)
The studio art major requires 44-52 hours in art, 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
Art History:
Two of the following seven: *at least one must be Renaissance, Ancient, or Modern/Contemporary*
ART 231 Ancient Art History..... 4

ART 232	Renaissance and Baroque Art History.....	4
ART 234	Art and Architecture in Europe.....	4
ART 235	African Art History.....	4
ART 236	Asian Art History.....	4
ART 237	Modern & Contemporary Western Art History.....	4
ART 314	Art and History of Film	4
	Total.....	8

Studio:

ART 285/286/287	Fine Arts Seminar	0-4
	<i>(must take 4 out of 8 semesters; may be repeated up to 4 credits or taken for 0 credit)</i>	
ART 2xx	Art Studio Elective	4
ART 2xx	Art Studio Elective	4
ART 2xx	Art Studio Elective	4
ART 3xx	Art Studio Elective.....	4
ART 3xx	Art Studio Elective	4
ART 385/386	Junior Studio 1 and 2	2, 2
ART 485	Senior Studio.....	2
ART 486	Senior Seminar and Exhibition	2

Optional Course:	Internship	4
	Total	28-36

Art with Visual Studies Concentration

The art with visual studies concentration major requires 28 hours in art, with 12 additional hours in a cross disciplinary concentration, distributed as follows:

Foundation Core:

ART 131	Intro to Visual Arts.....	2
ART 211	Drawing I <i>or</i> ART 241 Two-dimensional Design <i>or</i>	
ART 242	Three-dimensional Design	2
ART XXX	Studio elective	4
	Total.....	8

History Core:

ART 231	Ancient Art History*	4
ART 232	Renaissance and Baroque Art History*.....	4
ART 237	Modern & Contemporary Western Art History*	4
ART XXX	Art History Elective	4
	Total.....	16

*Required core art histories. Art department travel Mayterms may fulfill any of these but can also be used as the 4th, elective course.

Capstone courses:

ART 485	Senior Studio	2
ART 486	Senior Seminar and Exhibition	2

Cross-disciplinary courses:

12 hours of cross-disciplinary electives

Art Education:

Requirements: Must major in both the **Double major in art and another discipline** (listed below) and the Art Education major listed in the Education section of this catalog.

Double major in art and another discipline: 36 - 44 hours

Required courses:

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

Two of the following seven:

ART 231	Ancient Art History.....	4
ART 232	Renaissance and Baroque Art History.....	4
ART 234	Art and Architecture in Europe.....	4
ART 235	African Art History.....	4
ART 236	Asian Art History.....	4
ART 237	Modern & Contemporary Western Art History.....	4
ART 314	Art and History of Film	4
	Total.....	8

Studio:

ART 285/286/287	Fine Arts Seminar	0-4
	<i>(must take 4 out of 8 semesters; may be repeated up to 4 credits or taken for 0 credit)</i>	
ART 2xx	Art Studio Elective	4
ART 2xx	Art Studio Elective	4
ART 3xx	Art Studio Elective	4
ART 385/386	Junior Studio 1 and 2	2, 2
ART 485	Senior Studio.....	2
ART 486	Senior Seminar and Exhibition	2

Optional Course:

Fine Arts Internship.....	4
Total.....	20-28

Art Major: BFA (*Pending*)

BFA in Studio Art (60-68 hours) (*Pending*)

The BFA in studio art requires 60-68 hours in art, 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

Art History:

Three of the following seven:

ART 231	Ancient Art History.....	4
ART 232	Renaissance and Baroque Art History.....	4
ART 234	Art and Architecture in Europe.....	4
ART 235	African Art History.....	4
ART 236	Asian Art History.....	4
ART 237	Modern & Contemporary Western Art History.....	4
ART 314	Art and History of Film	4
	Total.....	12

Studio:

ART 285/286/287	Fine Arts Seminar	0-4
	<i>(Must take 6 out of 8 semesters; may be repeated up to 4 credits or taken for 0 credit)</i>	

ART 2xx	Art Studio Elective	4
ART 2xx	Art Studio Elective	4
ART 2xx	Art Studio Elective	4
ART 2xx	Art Studio Elective	4
ART 2xx	Art Studio Elective	4
ART 2xx	Art Studio Elective	4
ART 3xx	Art Studio Elective	4
ART 3xx	Art Studio Elective	4
ART 3xx	Art Studio Elective	4
ART 385/386	Junior Studio 1 and 2	2, 2
ART 485	Senior Studio	2
ART 486	Senior Seminar and Exhibition	2

Optional Course:

Fine Arts Internship.....	4
Total	40-48

BFA in Applied Design and Visual Communication (62-72 hours) (*Pending*)

The BFA in Applied Design and Visual Communication is an art and communication partnership. It requires 62-72 hours in art and communication, distributed as follows.

Required courses:		
Art and communication theory and foundations		
ART 131	Intro to Visual Arts	2
ART 241	Two-dimensional Design	2
ART 242	Three-dimensional Design	2
COMM 214	Intro to Mass Media	4
	Total	10
Art and communication studio		
ART 228	Digital Video I	4
ART 245	Graphic Design I	4
ART 281	Intro to Photography	4
ART 284	Intro to Digital Imaging	4
ART 345	Graphic Design II	4
COMM 232	Intro to Web Communication	4
	Total	24
Art History:		
Two of the following seven: <i>at least one must be Renaissance, Ancient, or Modern/Contemporary</i>		
ART 231	Ancient Art History.....	4
ART 232	Renaissance and Baroque Art History.....	4
ART 234	Art and Architecture in Europe.....	4
ART 235	African Art History.....	4
ART 236	Asian Art History	4
ART 237	Modern & Contemporary Western Art History.....	4
ART 314	The Art and History of Film.....	4
	Total	8
Studio:		
Three of the following: (minimum 10 hours)		
ART 382	Advanced Topics in Photography	4
ART 384	Advanced Digital Imaging	4
COMM 328	Digital Video II	4
ART 263	Typography and Letterpress Printing	2
COMM 207	Intro to Pro Tools.....	3
	Total	10-12
Additional required courses:		
ART 285/286/287	Fine Arts Seminar	0-4
<i>(Must take 6 out of 8 semesters: may be repeated up to 4 credits or taken for 0 credit)</i>		
ART 383	Applied Design Internship	4
ART/COMM	Electives	4-8
ART 486	Senior Seminar and Exhibition	2
	Total	10-18

Art Minor: 14 semester hours
A student may obtain an art minor by completing 14 hours in art.

COURSE DESCRIPTIONS

Ceramics	
ART 271 Ceramics I	(4, F&S; 3, May)
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; 3, May)
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.	

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 212 Abstract Drawing

(4, S)

This course explores the possibilities of drawing that are based on conceptual rather than perceptual knowledge. A wide variety of conceptual sources will be introduced, such as variations of spatial components; non-figurative images based on biomorphic or gestural motifs; compositional dynamics; tonal and color explorations; and the variation of mark as an expressive element. 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 20th century and relevant major artists will be studied and used for reference. 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.

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 447 Graphic Design Internship

(4, WSP)

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.

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. Liberal Arts.

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 including 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, WSP)

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 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, WSP)

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 215 Etching**

(2, F)

This course is an introduction to the basic techniques, processes and history of etching. Etching was developed in the early 16th century and has been a favorite media to many artist including Rembrandt, Goya, Picasso and Dine. This course will focus on traditional methods of working etching plates. Intaglio techniques include a number of rich and varied processes. The class will cover etching, drypoint, aquatint, use of soft and hard grounds, and the combination of techniques on a single plate. Printing techniques will be demonstrated, including color printing and the registration of multiple plates. Students will work through and generate a body of images associated with a self-directed theme. Culture: Art.

ART 262 Screen-printing

(2, F)

This course is an introduction to the basic techniques, processes and history of screen-printing. Screen-printing has commonly been used as a graphic art form for printing posters and signage, but is also an important medium for artists. Screen-printing is valued for its straightforward process, its expedient creation of large editions, the variety of materials it can print onto, and for its integration of hand-drawn, photographic and digital images. It has a history of satire, social/political commentary and protest and often exists in the space between popular culture and high art. Students will work through and generate a body of images associated with a self-directed theme or narrative. Culture: Art.

ART 263 Typography and Letterpress Printing

(2, F)

Letterpress printing from raised metal type was the primary means of mass communication for over 500 years. While no longer an economically significant segment of the commercial printing market, letterpress continues to live on for specialized commercial applications and, perhaps more importantly, as the heart and soul of a wonderful avocational world known as the private press movement. This course offers an introduction to hand set metal type and wooden type letterpress printing techniques, as well as limited edition printing of text and image on fine papers. Students will research and discuss the innovations of moveable type, wood type and typography in relation to their influence and effect on human civilization, language and the written word,

the industrial revolution, and modern economic structure. Studio projects may include design and printing of social and greeting cards, text based broadsides and posters, handmade books and custom stationary suites. Culture: Art.

ART 264 Relief Printing

(2, F)

This course is an introduction to the basic techniques, processes and history of relief printing. The course will focus primarily in the media of woodcut, a technique that appeared in China in the 9th century and in Europe around 1400. This media was originally used to stamp designs into fabrics, textiles and playing cards, but its importance became cemented by the works of Albrecht Durer and other Northern European Artists. This course will introduce the student to simple black and white woodcut printing and more complex methods of printing with color, reduction printing, multiple blocks, and various methods of registration and printing, both by hand and using the press. Students will work through and generate a body of work associated with a self-directed theme or narrative Culture: Art.

ART 265 Artists Book and Paper

(4, S)

This course is an introduction to the various hand-crafted methods of papermaking, bookbinding, box and portfolio construction. Students will explore and investigate eastern and western papermaking methods, and use the results to construct various bindings and box constructions. Structures such as pamphlet, concertina, Coptic stitch and perfect bind may be explored. Culture: Art.

ART 266 Sculptural and Moveable Book

(2, S)

Through a playful exploration of innovative book and box forms, students will construct models and finished pieces that can be used as standalone artist books or combine to create sculptural book forms. Using a variety of materials, unusual openings, and interesting closures students will explore creative book forms and develop their own unique books. Constructions such as tunnel or star book, magic wallet, Jacob's ladder, crown binding, theater, and clamshell and flexagon structures may be examined. Culture: Art.

Sculpture

ART 251 Sculpture I

(4, WSP)

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.

ART 351 Sculpture II

(4, WSP)

Exploration of three-dimensional form/space through individual creative experiences working with various sculptural media. Prerequisite: ART 251.

Special Topics

ART 295, 395 Special Topics

(1-4, WSP)

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, Typography and Letterpress Printing, Textile and Fiber Design, and Public Studio. 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. Liberal Arts.

ART 132 Art and Architecture in Context in Europe

(4, M)

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. (off campus study abroad course) Culture: Art. Liberal Arts.

ART 231 Ancient Art History

(4, F13)

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. Liberal Arts.

ART 232 Renaissance and Baroque Art History

(4, S)

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. Liberal Arts.

ART 234 Art and Architecture in Europe**(4, M)**

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. (off campus study abroad course) Culture: Art. Liberal Arts.

ART 235 African Art History**(4, M, S13)**

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. (off campus study abroad course, takes place in Tanzania) Culture: Art. Liberal Arts.

ART 236 Asian Art History Survey**(4, WSP)**

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. Liberal Arts.

ART 237 Modern and Contemporary Western Art History**(4, S13)**

History of Western art from the mid-18th century through the early 21st century. Analysis of major movements and artists, their underlying philosophy and cultural influences, and the role of critics in shaping dialogue. Culture: Art. Liberal Arts.

ART 314 The Art and History of Film**(4, S13)**

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. Liberal Arts.

ART 348 Fine Arts of Southeastern Europe**(4, F)**

Art history of Catholic southern Europe and especially of the Venetian Empire, principally painting and architecture. Comparison is made with the art and iconography of Orthodox Europe, especially of Serbia and Macedonia. Some study of Ottoman Muslim art during time in Bosnia. Culture: Art.

Special Studio courses**ART 285/286/287 Fine Arts Seminar****(0-1, up to 4 credits, F&S)**

This seminar course focuses on theory, concepts and methodology of art historical study and their application to the contemporary visual arts by engaging students in discourse surrounding lectures of visiting artists. Investigations of film and writing will be a secondary approach to the course. This course will be required of all majors in the BA, BFA and BFA Applied Design programs, to be repeated for 0-1 hours each time up to 4 credits. The goal of this course is to build community and engage all majors in the dialog of contemporary and relevant studio practice and design industry issues from the moment they walk into the major – first year through senior year. Majors in all art and design programs will have the real world ideas and issues of contemporary arts professionals brought to their doorstep on the HC campus.

ART 385 Junior Studio 1**(2, F)**

This major studio class for Studio Art BA and BFA juniors gives students the opportunity to work with increased independence in a variety of disciplines including drawing, painting, printmaking, photography, sculpture, ceramics and mixed 2D and 3D media. Individual choices of media execution and subject are encouraged through a series of open-ended problems given over both the fall and spring semesters. The problems are designed to invite a wide variety of responses from each student. Group critique is an integral component to the course. The philosophy and structure of the Junior Studio places a high priority on the establishment of an active and reflective relationship between an individual and his/her work. Individual studio space is provided in order to reinforce independent thinking and to help students establish a rapport with the studio life of a fine artist.

ART 386 Junior Studio 2**(2, S)**

This major studio class for Studio Art BA and BFA juniors gives students the opportunity to work with increased independence in a variety of disciplines including drawing, painting, printmaking, photography, sculpture, ceramics and mixed 2D and 3D media. Individual choices of media execution and subject are encouraged through a series of open-ended problems given over both the fall and spring semesters. The problems are designed to invite a wide variety of responses from each student. Group critique is an integral component to the course. The philosophy and structure of the Junior Studio places a high priority on the establishment of an active and reflective relationship between an individual and his/her work. Individual studio space is provided in order to reinforce independent thinking and to help students establish a rapport with the studio life of a fine artist.

Internship

ART 383 Applied Design Internship (4)
Students will apply classroom knowledge in a real world setting. Internship positions may be available in a range of applied design industries, small businesses, artist studios, galleries, and museums. Placements are developed by working one on one with the supervising faculty member and the individual students to try to match their objectives with an appropriate experience. The Internship requires 60-100 hours in the field. Prerequisite: junior status, coursework at 300 level in internship media.

Art Education

ART/EDUC 346 Art Education: Elementary Methods (2, S)
This course analyzes learning styles and cognitive theory in relationship to educating youth in visual arts, (grades K-6). Students will discuss and work in a diversity of art materials and methods appropriate to grade level, relating them to integrated lessons addressing multiple student populations. Course work includes lectures, studio experiences, collaborative assignments, and demonstrations. Prerequisite: EDUC 338.

ART/EDUC 347 Art Education: Secondary Methods (2, S)
This course examines current assessment and instructional methods of teaching visual art to secondary-level students (grades 7-12). The role of the visual arts in the secondary level curriculum will be examined through lectures, discourse and projects focusing on media appropriate for grade level. Course focuses on current instructional theories in viewing and analyzing artwork, teaching methodologies of studio art, art history and theories of aesthetics discourse. Prerequisite: EDUC 338.

Senior Capstone

ART 485 Senior Studio (2, F)
A required seminar-studio course for all studio art majors. Students will examine contemporary theories and practices in art criticism, while developing a body of work for their senior exhibition. Course methods include slide lectures, selected readings, class discussions, and individual and group critiques. The completion of a portfolio and artist statement is also required. Prerequisite: Senior standing with a major in studio art.

ART 486 Senior Seminar and Exhibition (2, S)
A seminar-studio that includes the development of a quality body of work for exhibition and formal documentation through written thesis. Course methods include slide lectures, selected readings, class discussions, and individual and group critiques. Required of all senior art majors during the spring semester.

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.

Australia-New Zealand Studies (minor)

Faculty contacts: Paul D. Young
Phone: 585.567.9634

Houghton Down Under will not be offered for Fall 2012.
A minor in Australia-New Zealand Studies requires at least 12 credits drawn from the following courses:

INCL 301	Engaging Australian and New Zealand Culture.....	4
INCL/MIN/MISS/URMN/		
PSY/SOC 328	Community and Society in Australia and New Zealand	4

ART/INCL 238	Art and Music in Australia and New Zealand	4
INCL/PSY/SOC 329	Australia and New Zealand Culture through Film	4
ENGL 308	Australian Literature.....	3

COURSE DESCRIPTIONS

INCL 301 Engaging Australian and New Zealand Culture (4, F)
Reading history, literature, and cultural analysis of the various cultures of Australia and New Zealand will combine with relating to locales and people through study, discussion, and service projects. Incorporates travel, homestays, and involvement in local cultural activities. Liberal Arts.

INCL/MIN/MISS/PSY/SOC/URMN 328 Community and Society in Australia and New Zealand (4, F)
Examines social institutions in urban Australia and New Zealand. Analyzes social problems and institutional and community responses by churches and faith-based organizations, and compares them with those of governments, non-government organizations and prosocial community organizations. Major/minor credit: ministry, missions, urban ministry, psychology, sociology. Community: Psychology or Sociology. Liberal Arts.

ART/INCL 238 Art and Music in Australia and New Zealand (4, F)
Art, architecture, and music in context in Australia and New Zealand. Examines the interaction of Western and indigenous cultural styles and the influence of local and national conditions on the arts. Readings, journal-keeping, and questions pertaining to site-specific works are required. Major credit: Intercultural Studies. Culture: Music or Art. Liberal Arts.

INCL/PSY/SOC 329 Australia and New Zealand Culture through Film (4, F)
Since creating the first feature-length film in the world, Australian film-makers have examined themselves, their culture, their environment, and their interactions with the rest of the world in varied and distinctive ways, often with a gloss of revealing humor. Through the films studied in this class, students will be introduced to the diversity of Australia and New Zealand culture, from pre-historical aboriginal and Maori to postmodern. Major credit: Intercultural Studies, Psychology, Sociology. Community: Psychology or Sociology. Liberal Arts.

ENGL 308 Australian Literature (3, F)
Studies the diversity of Australian literary traditions and texts in light of Australian critical approaches such as post-colonial theory and other cultural study models. Liberal Arts.

Bible (major and minor)

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

Faculty: Sarah B. C. Derck, Kristina LaCelle-Peterson, Terence P. Paige, Kulli Tõniste
Phone: 585.567.9460

Bible: BA/BS (32 core hours in the major; 8 co-requisite hours)

A major in Bible is recommended for those expecting to become missionaries, teachers or leaders in para-church ministries and translators. It is also an excellent base for seminary or graduate work in biblical studies, theology, and related disciplines. Majors must take all core courses and co-requisite courses.

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
CRFM 325	Bible Study and Teaching Methods <i>OR</i>	
GREK 201	Greek Readings <i>OR</i>	

HEBR 201	Hebrew Readings	2
BIBL 482	Senior Capstone: Senior Seminar.....	2
	Total.....	32
Co-requisites:		
GREK 101-102	Greek <i>OR</i>	
HEBR 101-102	Hebrew	4,4
	Total:	40

Bible major with Missions Concentration (34 major hours: 19-20 concentration hours)

Major required courses:

BIBL 221	Biblical Interpretation	4
BIBL 231	Pentateuch.....	4
BIBL 233	Jesus and the Gospels	4
Bible electives	.....	8
BIBL 355	Biblical Theology I <i>and</i>	
BIBL 356	Biblical Theology II	2,2
GREK 101-102	Greek <i>OR</i>	
HEBR 101-102	Hebrew	4,4
BIBL 482	Senior Capstone: Senior Seminar.....	2
	Total	34

Missions Concentration:

MISS 241	History of the Global Christian Movement	4
MISS 242	Contemporary Church in Missions	4
Choose one course from the following:		4
INCL 243	Cultural Anthropology	
INCL 310	Intercultural Competencies	
INCL 350	Culture Change	
Choose one course from the following:		4
MISS 341	Biblical and Theological Foundations	
MISS 342	Contextualization in Missions	
Choose one elective in INCL, LING., MISS, THEL, URMN		3-4
	Total	19-20
	Total major and concentration.....	53-54

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. Liberal Arts.

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. Liberal Arts.

BIBL 231 Pentateuch (4, S)

Analysis of critical and historical background, literary content, and development of the religion of Israel. Relevancy of contents. Liberal Arts.

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. Liberal Arts.

BIBL 251 Bible History and Geography (4, WSP)

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. Liberal Arts.

- BIBL 261 Holy Land Tour** (4, WSP)
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. Liberal Arts.
- 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. Liberal Arts.
- BIBL 272 Gospel and Epistles of John** (4, WSP)
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. Liberal Arts.
- BIBL 275 Women in the Bible** (4, WSP)
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. Liberal Arts.
- BIBL 280 Poetic Books** (4, WSP)
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. Liberal Arts.
- 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. Liberal Arts.
- 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. Liberal Arts.
- 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. Liberal Arts.
- 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. Liberal Arts.
- BIBL 351 Revelation**(4, WSP)
An exegetical survey of the Book of Revelation. We will study the literary nature of the book, its historical



context, the social conditions of the recipient churches, and the application of Revelation to the modern church. Liberal Arts.

BIBL 355 Biblical Theology I (2, S14)
Examination of the teaching of the Old Testament, developed from the distinctive perspective of Biblical theology. Major themes and methods of inquiry. Liberal Arts.

BIBL 356 Biblical Theology II (2, S13)
Examination of the teaching of the New Testament, developed from the distinctive perspective of Biblical theology. Major themes and methods of inquiry. Liberal Arts.

BIBL 360 Science and Scripture (4, WSP)
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. Liberal Arts.

BIBL 361 Job (4, WSP)
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. Liberal Arts.

BIBL 363 Dead Sea Scrolls (4, WSP)
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. Liberal Arts.

BIBL 371 Book of Acts (4, WSP)
Study of the book of Acts from literary, historical, and theological perspectives. Attention will be given to early church growth and contemporary relevance. Liberal Arts.

BIBL 395 Special Topics in Bible (2 or 4, WSP)
Study of select blocks or groups of Scripture related to a particular topic or theme. Liberal Arts.

BIBL 410 Isaiah (2, WSP)
A study of the historical, critical, and contextual issues, with an emphasis on a vital faith to our generation. Liberal Arts.

BIBL 412 Jeremiah (2, WSP)
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. Liberal Arts.

BIBL 451 Romans (2, WSP)
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. Liberal Arts.

BIBL 453 1 Corinthians (2, WSP)
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. Liberal Arts.

BIBL 482 Senior Capstone: Senior Seminar in Bible (2, 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. Liberal Arts.

BIBL 191, -2; 291, -2; 391, -2; 491, -2 Independent Study (1, 2, 3, or 4)
Liberal Arts.

BIBL 496 Honors in Bible (4, WSP)
Liberal Arts.

GREEK

GREK 101, 102 **Beginning Greek Level 1, Level 2** (4/4, F/S 13-14)
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. Liberal Arts.

GREK 201 **Greek Readings** (2, WSP)
Readings in New Testament Greek. May include selections from the Septuagint or other Hellenistic Greek texts. Prerequisite: GREK 101 and 102. Liberal Arts.

GREK 191, -2; 291, -2; 391, -2; 491, -2 **Independent Study** (1, 2, 3, or 4)
Liberal Arts.

HEBREW

HEBR 101, 102 **Beginning Hebrew Level 1, Level 2** (4/4, F/S12-13)
Elements of Biblical Hebrew. Reading from Old Testament. Level 2 - Foreign Language Competency. Liberal Arts.

HEBR 201 **Hebrew Readings** (2, WSP)
Readings in Biblical Hebrew. Prerequisite: HEBR 101 and 102. Liberal Arts.

HEBR 191, -2; 291, -2; 391, -2; 491, -2 **Independent Study** (1, 2, 3, or 4) Liberal Arts.

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: David A. Brubaker
Phone: 585.567.9280
Department of Chemistry: Karen E. Torracca, chair. Keith A. Horn, Associate Dean
Faculty: Irmgard K. Howard, John M. Rowley, Karen E. Torracca
Emeritus Professor: Larry W. Christensen
Phone: 585.567.9280

Biochemistry is an excellent path to entering one of the health professions or following a career in biochemical research. A Biochemistry major at Houghton College can lead to such exciting careers as bio-medical researcher, medical doctor, nurse, pharmacist or pharmacologist, nutritionist, physical therapist, or food chemist, to name a few. (For a full description of Pre-Health Professions, see that heading in this catalog, listed under "Biology Department.") A major in Biochemistry at Houghton College enables a student to learn, in a context of faith, the normal or abnormal paths that one's body may take, and to understand the ways in which nutrition and pharmaceuticals can best prevent or correct damage to one's body. Because the Biochemistry major at Houghton College contains a significant liberal arts component as well as its science component, the student may choose, upon graduation, to receive either the Bachelor of Arts or the Bachelor of Science degree in Biochemistry.

Biochemistry: BA/BS (30) hours in major; 16 prerequisites; 20 co-requisites)

Prerequisites (16):	
BIOL 151	General Biology: Organisms to Ecosystems 4
BIOL 152	General Biology: Cellular Biology and Genetics..... 4
CHEM 151, 152	General Chemistry I, II 8
Co-requisites (20):	
CSCI 211	Programming I..... 4
Math 181	Calculus I 4

PHYS 151, 152	General Physics I, II	8
PSY 307 and 308	Statistics I/II	2/2
or PSY 309	Statistics.....	3 or 4
Required (30) 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	3
CHEM 334	Bioanalytical Lab.....	1
CHEM 268	Special Topics in Chemistry.....	2
CHEM 352	Physical Principles.....	3
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. Liberal Arts. For seniors, except by permission.

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

Phone: 585.567.9280

General Information: The faculty members of the Houghton College Biology Department enthusiastically engage students as they explore together the living world of God's creation, from the sub-cellular level to the individual organism to populations and entire ecosystems. Building on the foundation of the College's cross-disciplinary, general education curriculum, biology majors learn to integrate their Christian faith with scientific principles and are well prepared to pursue a broad range of vocational callings including applied health careers, bioethics, education, environmental studies, health professions, industry, international development, policy making, research and many others. Houghton College has a rich and long-standing history in preparing students to enter these fields.

Interested in real-world opportunities? Enroll in our pre-medical practicum, in which students live with a Houghton alumnus who is also a physician in order to gain medical "shadowing" time. Alternatively, join the many Houghton students who serve as Emergency Medical Technicians with the Houghton volunteer fire department or travel to a developing country to take *Foundations of Health Development*. Many of our students also participate in Houghton-faculty led programs in Tanzania, where they can take a course in Wildlife Behavior in East Africa, or travel to Alaska for the Ecology of Alaska course.

PROGRAM DESCRIPTIONS

(specific course requirements listed in section below)

Pre-Health Professions: (Biology BS major)

Graduates with a BS in Biology 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.

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.

Faculty Advisors:

Matthew K. Pelletier (pre-Pharmacy D)

Jamie Potter (pre-medical, pre-osteopathy, pre-dental, pre-optometry, pre-chiropractic, pre-nursing)

Aaron M. Sullivan (pre-veterinary, pre-physical therapy, pre-physician assistant)

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 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.

For further information on the pre-med program contact Dr. Jamie Potter at jamie.potter@houghton.edu.

Pre-Nursing: Nursing is one of the largest and fastest growing professions in our nation. Typical paths to registered nursing include completion of a Bachelor of Science in Nursing (BSN) degree or, for clinical nurse specialists, nurse anesthetists, nurse-midwives and nurse practitioners, a Masters of Science in Nursing (MSN). Houghton students interested in nursing typically pursue one of three paths: a) enroll in an accelerated Bachelor of Nursing (BSN) program after completion of a BA or BS in another field at Houghton College, b) enroll in an accelerated Masters of Nursing program after completion of a BA or BS in another field at Houghton College, or, c) transfer to a Bachelor of Nursing (BSN) program following completion of two years at Houghton College. Most pre-nursing candidates major in biology or chemistry, though many other majors are possible. Where a student takes a major other than biology or chemistry, the prerequisite science, psychology and math courses need to be included. A particular advantage to taking pre-nursing at Houghton College is the availability of Intercultural Studies courses. These classes, including those related to public health, prepare students for global service opportunities in missions, NGO's, public health organizations and educational institutions. For further information on the pre-nursing program contact Dr. Jamie Potter, at jamie.potter@houghton.edu.

Medical Technology:

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.

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. For further information on the med-tech program contact Dr. David Brubaker at david.brubaker@houghton.edu.

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.

For further information on the pre-vet program contact Dr. Aaron Sullivan at aaron.sullivan@houghton.edu.

Pre-Health Professions (Biology BA major)

Pre-Pharmacy D Program (with University of Buffalo)

The PharmD program is a 3-year (Houghton) plus a 4-year (UB) program and acceptance to the University of Buffalo is not guaranteed. See course requirements listed below. For further information on the pre-PharmD program contact Dr. Matthew Pelletier at matthew.pelletier@houghton.edu.

Pre-physical Therapy:

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. For further information on the pre-physical therapy program contact Dr. Aaron Sullivan at aaron.sullivan@houghton.edu.

Biology Education: (Biology BA major)

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). 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.

Environmental Programs (Biology BA or BS major)

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 programs. 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 below) 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.

Biology with Environmental Emphasis: BA

Biology with Environmental Emphasis: BS

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) Bachelor's or higher-level degree including or supplemented by 30 semester credit hours in the biological sciences. These 30 semester credit hours must include 18 specialized semester credit hours in wildlife courses that address the study, monitoring, modeling, management, interrelationships,

or characteristics of wild animals and their habitats. See the following website. <http://www.dec.ny.gov/about/45991.html>

Biologist (ecology) Bachelor's or higher-level degree including or supplemented by 30 semester credit hours in the biological sciences. These 30 semester credit hours must include 18 specialized semester credit hours in field biology or ecology courses such as fishery or wildlife science, fishery or wildlife management, environmental impact analysis, limnology, toxicology, plant or animal taxonomy, wetland resources, wildlife population dynamics, zoology, or botany or any of their subspecialties. See following website. <http://www.dec.ny.gov/about/45987.html>

Forestry: (emphasis within the Biology major, minor)
Faculty: faculty from SUNY-ESF Ranger School

Because deforestation and other human activities affecting forested areas have significant ecological, aesthetic, and economic ramifications, gaining insight into our forest resources can play an important role in environmental stewardship, and may be desirable for students intending to serve with mission organizations. The forestry program at Houghton College, which enjoys a largely forested campus, offers interested students an opportunity to develop a deeper understanding of these issues through a cooperative agreement partnership with the State University of New York—College of Environmental Science and Forestry (SUNY-ESF). Both a forestry minor and a forestry emphasis within a biology major are offered through coursework taken at the SUNY-ESF Ranger School (est. 1912) based at Wanakena in the Adirondack Park. The Ranger School offers a rigorous 46 credit Forestry Technology program over an extended school year. Houghton students can participate for a fall semester (forestry minor) or for an entire academic year (forestry emphasis within a biology major), depending on their educational and career goals. Those participating for the whole year also earn an A.A.S from SUNY –ESF.

Note: The program is not limited to biology majors. Non-Biology students who have the necessary prerequisites may also opt to take the fall courses (earning a forestry minor) or the whole year program (earning a forestry minor, biology minor, and A.A.S degree in Forest Technology.)

MAJOR AND PROGRAM COURSE REQUIREMENTS LISTINGS

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

BIOL 151	General Biology: Organisms to Ecosystems	4
BIOL 152	General Biology: Cellular Biology and Genetics	4

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.*

Required (26) which must include:

BIOL 251	Genetics	4
BIOL 322	General Ecology	4
Organismal Biology.....		4

One course chosen from following:

BIOL 207	Wildlife Behavior in East Africa	
BIOL 295	Herpetology	
BIOL 301	Field Botany	
BIOL 315	Marine Biology	
BIOL 336	Animal Behavior	
BIOL 372	Comparative Animal Physiology	
BIOL 395	Ornithology	
BIOL 482	Senior Seminar	2
BIOL XXX	Electives	12

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*)

One of the following:

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

Co-requisites (28):

CHEM 151, 152	General Chemistry.....	8
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CHEM 241, 242	Organic Chemistry	8
PHYS 151, 152	General Physics.....	8
MATH 181	Calculus I.....	4

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

Prerequisites (8):

BIOL 151	General Biology: Organisms to Ecosystems	4
BIOL 152	General Biology: Cellular Biology and Genetics	4

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	General Chemistry.....	8
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Pre-nursing:

The prerequisites for BSN, accelerated BSN and MSN or accelerated MSN programs can vary widely. It is therefore highly recommended that the pre-nursing student work with our pre-Nursing advisor, Professor Jamie Potter, during their first and second years at Houghton College to review the requirements for specific programs at selected colleges and universities.

Students planning on transferring to a BSN program or an accelerated BSN program typically complete the following courses with their pre-requisites:

- Two semesters of Human Anatomy and Physiology (BIOL 217, 218) 8
- Two semesters of General Chemistry (CHEM 151, 152)..... 8
- Microbiology (BIOL 242)..... 4
- Nutrition (CHEM 187, 188)..... 4
- Statistics (SOC 307 and 308 or 309 or MATH 131) 4
- Developmental Psychology (PSY 213) 4

Other courses that may be required by specific BSN or accelerated nursing programs (either BSN or MSN) include, introduction to psychology, pathophysiology, theology/religious studies, medical ethics, human growth and development, sociology and pharmacology.

Pre-nursing with Intercultural Studies: Pre-nursing students interested in global service careers may want to consider taking the following courses in Intercultural Studies in addition to the pre-nursing courses listed above:

- INCL 201 Introduction to Global Issues
- INCL 243 Cultural Anthropology
- INCL 310 Intercultural Competencies
- INCL 311 Intercultural Experience

Note: Completion of all four of the above would constitute a minor in Intercultural Studies.

Other helpful courses for pre-nursing students with interests in missions or related international careers include:

- INCL 348 Foundations of Health Development
- MISS 241 History of the Global Christian Movement
- MISS 242 The Contemporary Church in Missions
- MISS 342 Biblical and Theological Foundations of Missions
- Various Bible courses.

Note: Completion of all four of the above courses would constitute a minor in Missions.

Medical Technology with a major in Biology (BS)

The program in medical technology which leads to a BS in biology requires that the student complete 94 hours of course work at Houghton College and then transfer to Robert Packer Hospital (Sayre, PA) or another approved program to complete a major in biology and a minor in chemistry.

The following courses must be taken at Houghton:
All integrative studies requirements

BIOL 151	General Biology: Organisms to Ecosystems	4
BIOL 152	General Biology: Cellular Biology and Genetics	4
BIOL 242	Microbiology	4
BIOL 251	Genetics	4
BIOL 365	Immunology.....	4
CHEM 151, 152	General Chemistry.....	4,4

Pre-Pharmacy D Program (with University of Buffalo)

Biology: BA (26 hours in major; 8 prerequisites; 8 co-requisites; plus prerequisites for admission to UB PharmD program)

Prerequisites (8):

BIOL 151	General Biology: Organisms to Ecosystems	4
BIOL 152	General Biology: Cellular Biology and Genetics	4

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	General Chemistry.....	8
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UB prerequisites for Admission to UB PharmD Program

CHEM 241, 242	Organic Chemistry I, II	8
CHEM 332	Biochemistry	3
MATH 182	Calculus II	4
PHYS 151	General Physics I	4
PSY 307 and 308 or PSY 309	Statistics	4

Two writing courses required (one meets Integrative Studies)

One social behavioral science course (meets one Community IS requirement)

The PharmD program is a 3-year (Houghton) plus a 4-year (UB) program and acceptance to the University of Buffalo is not guaranteed.

Pre-physical Therapy (Biology BA major)

Faculty not listed above: Deanna Hand, D. Brandon Hoffman, Irmgard K. Howard, Sandra D. Johnson

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:

CHEM 151, 152	General Chemistry.....	8
PHYS 151, 152	General Physics.....	8
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

Environmental Programs:

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

Prerequisites (8):		
BIOL 151	General Biology: Organisms to Ecosystems	4
BIOL 152	General Biology: Cellular Biology and Genetics	4
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 307 and 308 or		
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 181	Calculus I.....	4
PHYS 151, 152	General Physics I, II	8
Recommended courses: see BA above		

Forestry (emphasis within the Biology major, minor)

Outline of courses:

A. SUNY-ESF Ranger School pre-requisites, required of all participants: courses taken at Houghton College (32 credits).

ECON 201	Introduction to Economics (2)
ECON 210	Principles of Microeconomics or ECON 211 Principles of Macroeconomics (2)
BIOL 151	General Biology: Organisms to Ecosystems (4)
BIOL, CHEM, or PHYS	Science course with lab (4)
MATH 115	Introduction to Calculus (4)
English w/focus on Writing	(6)

Electives (Suggested areas: psychology, sociology, computer science, public speaking) (10)

B. Forestry minor: courses taken during fall semester at SUNY-ESF Ranger School (22 credits).

Fourteen (14) credits transfer to Houghton College, qualifying for the minor. These courses include:

Forest Ecology (4)

(This course, when counted for the minor, may NOT also be counted toward a biology major.)

Dendrology (3)

Introduction to Natural Resources Measurements (4)

Geographic Information Technology (3)

Eight (8) hours of additional coursework is included in the program but does NOT transfer back to Houghton

Introduction to Surveying (4)

Leadership and Forest Technology (4)

C. Forestry emphasis within a Biology major, with an A.A.S. in Forest Technology: courses taken over both semesters at SUNY-ESF Ranger School (46 credits)

Twenty two (22) credits taken in the fall semester as outlined above.
Twenty four (24) credits taken in the spring semester:

- Silviculture (4)
- Forest Inventory Practicum (2)
- Timber Harvesting (2)
- Wild Land Firefighting and Ecology (2)
- Intro to Forest Recreation (1)
- Natural Resources Management (3)
- Water Measurements (1)
- Timber Transportation Utilization (3)
- Wildlife Conservation (3)
- Forest Insects and Disease (3)

The following courses are counted toward the Biology major at Houghton College:

- Dendrology (F) (3)
- Forest Ecology (F) (4)
- Silviculture (S) (4)

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*	3/4
BIOL 475	Environmental Stewardship Senior Seminar	1
ESCI *		4
REC 401	Natural Resource Management	4
	Total:	12-13

*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).

Biology minor: 12 hours above BIOL 151, 152

COURSE DESCRIPTIONS

BIOL 103 Fundamentals of Biology (4, S13)
Principles of biological structure and function, particularly as they relate to humans. Three lecture, three laboratory hours each week. Lab Science or 2nd Science. Liberal Arts.

BIOL 105 Conservation Biology (4, F12)
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 laboratory hours each week. May not be used toward the biology major or minor. Lab Science or 2nd Science. Liberal Arts.

BIOL 151 General Biology: Organisms to Ecosystems (4, F/S)
One of two foundational courses required for preparation for advanced coursework. Includes an introduction to plant and animal biology (including taxonomy), animal behavior, ecology, and principles of evolutionary theory. Three lecture hours, three laboratory hours each week. BIOL 151 and/or BIOL 152 are prerequisites for major level courses above 200. Lab Science or 2nd science. Liberal Arts.

BIOL 152 General Biology: Cellular Biology and Genetics (4, F/S)
One of two foundational courses required for preparation for advanced coursework. Includes an introduction to basic biochemistry, cell biology and metabolism, and principles of genetics. Three lecture hours, three laboratory hours each week. BIOL 151 and/or BIOL 152 are prerequisites for major level courses above 200. Lab Science or 2nd science. Liberal Arts.

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, M13)
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 151. Liberal Arts.

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 2nd Science. Liberal Arts.

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 2nd Science. Liberal Arts.

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 2nd Science. Liberal Arts.

BIOL/PHED 232 Epidemiology (2, M13)
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. *Does not count for major or minor credit in biology.*

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 152 and BIOL 251. Liberal Arts.

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 2nd Science. Liberal Arts.

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. Prerequisite: BIOL 151. Liberal Arts.

BIOL 315 Marine Biology (4, WSP)
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. Prerequisite: BIOL 151. Liberal Arts.

BIOL 320 Limnology (4, WSP)
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. Prerequisite: BIOL 151. Liberal Arts.

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. Prerequisite: BIOL 151. Liberal Arts.

BIOL 336 Animal Behavior (4, F or 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. Liberal Arts.

BIOL 365 Immunology (4, S13)

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. Prerequisite: BIOL 152. Liberal Arts.

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. Liberal Arts.

BIOL 372 Comparative Animal Physiology (4, S13)

General consideration of functional processes in animals with emphasis on the comparative aspects. Three lecture, three laboratory hours each week. Prerequisite: BIOL 151 and BIOL 152. Liberal Arts.

BIOL 374 Human Genetics and Disease (4, S13, 15)

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. Liberal Arts.

BIOL 380 Pathogenic Microbes (4, S14)

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 152 and 242. Liberal Arts.

BIOL 382 Embryology and Endocrinology (4, F)

Study of morphogenesis and biochemical processes involved in development, with emphasis on vertebrates.



Three lecture, three laboratory hours each week. Prerequisite: BIOL 251. Liberal Arts.

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. Liberal Arts.

BIOL 394 Collaborative Research in Biology (4, F, S, M)
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. Liberal Arts.

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 2nd Science. Liberal Arts.

BIOL 475 Environmental Stewardship Seminar (1, WSP)
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. Liberal Arts.

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. Liberal Arts.

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. Liberal Arts.

BIOL 391, -2; 491, -2 Independent Study (1, 2, 3, or 4)
Research under the supervision of a biology department faculty member. Maximum total five credits. Liberal Arts.

BIOL 496 Honors in Biology (4)
Liberal Arts.

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.*

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, Richard A. Halberg, Daniel C. Minchen, Lois A. Ross
www.businessathoughton.com
E-mail: business@houghton.edu
Phone: 585.567.9440

Mission: To develop the character and intellect of our students and to equip them with skills to be Christ-like scholar-servants who will steward resources of for-profit, not-for-profit, and service organizations.

Major: BS (45-46 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 307 and 308	Statistics I/II..... 2, 2
Or BADM 309	Statistics..... 3
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..... 33-34

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, Banking & Financial Markets 3
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 350	Economic Freedom 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 315	Public Relations..... 4
BADM 319	Marketing Research 2
BADM 340	eCommerce..... 2
Finance:	
ECON 301	Money, Banking & Financial Markets 3
BADM 302	Investment Management 4
BADM 431	Security Analysis & Portfolio Management 1-4

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
ECON 350	Economic Freedom	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 but not more than six hours of internship experience.

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

All internship experiences must be pre-certified and follow department guidelines to meet the internship requirements. Students wishing to earn credit-hours for internships conducted over the summer will pay normal summer tuition rates. Students may also apply up to four (4) unused credit-hours purchased in the preceding school year. One may apply to have an internship meet the requirement for an internship without earning credit but the experience must still be pre-certified by the department designated internship supervisor and meet all other internship requirements.

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.

BADM 410 – *Free Enterprise and Value Creation* – This select group of students meets once a week in a collaborative workshop growing and managing on-campus businesses under the umbrella of *Houghton Student Enterprises*.

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. 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.

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
(except BADM/ECON 307, 308 and 309)		

Management Minor: (16 hours)

A management minor provides students from various majors with some of the background and expertise they may need for supervisory and administrative roles in a variety of organizations. In particular, the minor may prove helpful to those assuming duties in church, parachurch and other service organizations.

Required:	
BADM 212	Principles of Management 4
BADM 314	Human Resources Management 4
BADM 202	Accounting and Finance for Non-financial Managers 2
<i>or</i>	
ACCT 211	Financial Accounting 3
Total required .....10-11	

Additional hours selected from

BADM 301	Business Communication 2
BADM 303	Entrepreneurship 2
BADM 320	Leadership Development 4
Total additional hours 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 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, Niagara University, and Rochester Institute of Technology. More up-to-date and detailed information on these agreements is available at www.businessathoughton.com.

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 307, 308 and 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, S)
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, WSP)
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.

BADM 202 Accounting and Finance for Non-Financial Managers (2, F)
An introduction to the accounting and finance concepts most often used by managers including understanding and analysis of financial statements, budgeting, working capital management, and financing alternatives.

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, F13, F15)
An introduction to basic legal environment of business, contracts, sales and leases, and negotiable instruments. Liberal Arts.

BADM 214 Business Law II (4, F12, F14)
Basic law covering forms of business organization, agency, bankruptcy, government regulations, and professional liability. Liberal Arts.

BADM 218 Marketing Principles (4, F)
Factors in product development, pricing, distribution, and promotion of consumer and business goods and services.

BADM 220 Advanced Computer Applications (4, WSP)
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.

BADM 301 Business Communication (2, F&S)
A study of communication theory and principles as applied to business writing and oral communication. Community: Communication. Liberal Arts.

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

BADM 307 Statistics I (2, F&S)
Descriptive statistics: Measures of central tendency and variability, skewness, frequency distributions, graphing, discrete and continuous probability functions, and sampling. Prerequisite: Spreadsheet Competency. Liberal Arts.

BADM 308 Statistics II (2, F&S)
Inferential statistics: Sampling distributions, estimation, hypothesis testing, t-tests, ANOVA, Chi-Squared, correlation, and regression. Prerequisite: BADM/ECON/PSY/SOC 307 or equivalent by placement test. Quantitative Literacy Competency. Does not meet Creation Requirement. Liberal Arts.

BADM 309 Statistics (3, M)
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. Does not meet Creation Requirement. Liberal Arts.

BADM 312 Advertising Principles (2, F)
(See description under the Communication major, COMM 312.) Prerequisite: BADM/COMM 218.

BADM 313 International Business (2, S14)
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 315 Public Relations Principles (4, F)
An overview of the development, management and implementation of professional public relations programs designed to create, enhance or protect the reputations of businesses or organizations. The course explores the roots of PR and proceeds to study research methods, communication strategies and relationship-building efforts with publics that are critical to the organization's success in the marketplace. Prerequisite: BADM/COMM 218.

BADM 317 Management Information Systems (4, S13, S15)
Design, maintenance, monitoring of information systems. Includes systems and audit concepts. Prerequisites: Spreadsheet Competency, ACCT 211, 212.

BADM 319 Marketing Research (2, F12, S14)
Study of the techniques used in collection and analysis of secondary and primary data and use of that format for decision-making in marketing environment. Student teams work on real business marketing research projects. Prerequisites: BADM 309, BADM 218.

BADM 320 Leadership Development (4, S14)
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, S14, S16)
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, S14, S16)
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/ECON 350 Economic Freedom (2, S)
A study of the factors which relate to why some economies prosper while others struggle to meet the basic needs of their citizens. Common misconceptions and proposed solutions are explored in an effort to determine how effectively to address poverty around the world. Liberal Arts.

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 410 Free Enterprise and Value Creation (0-1, F/S)
An advanced course for students focused on entrepreneurship or small business management. Students work

collaboratively with faculty in researching, planning, and implementing start-up business opportunities on campus. Sustainable businesses are then operated and managed under the umbrella of *Houghton Student Enterprises*, an agency of the Department of Business and Economics. By application only. The course may be taken multiple semesters for four credit hours toward graduation and counts as internship credit.

BADM 421 Internship in Business (P/F) (0-6, F, S, or Summer)
Supervised experience in a business firm combining practical activities with integrating studies.

BADM 431 Security Analysis & Portfolio Management (.5-1, F&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.

BADM 481 Senior Capstone: Business Strategy & Policy (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 Independent Study (1, 2, 3, or 4)

BADM 295, 395, 495 Special Topics (1, 2, 3, or 4)
Group study of special topics.

BADM 496 Honors in Business (4, S)

Chemistry (majors and minor)

Department of Chemistry: Karen E. Torraca, chair. Keith A. Horn, Associate Dean
Faculty: Irmgard K. Howard, John M. Rowley, Karen E. Torraca
Emeritus Professor: Larry W. Christensen
Phone: 585.567.9280

Majoring in chemistry at Houghton College is a great way to prepare for a career in one of the health professions or for a career in chemistry! Our alumni include medical doctors (allopathic MD, osteopathic DO), optometry doctors (OD), podiatrists (DPM), chiropractic doctors (DC), medical missionaries, nurses, physicians' assistants, dentists, veterinarians, clinical chemists, medical technologists, physical therapists, and nutritionists. In addition, our graduates have become research chemists, forensic scientists, pharmaceutical researchers, medicinal chemists, environmental analysts, science writers, college professors, high-school teachers and technology managers and executives, among other professionals. Chemistry students interested in nursing have earned a Houghton undergraduate chemistry degree, and then entered an advanced accelerated nursing program to complete an additional degree in fewer than two more years. (For more information on the Pre-Health Professions, see that section of this catalog under "Biology Department.")

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 in chemistry or chemically-related fields.

Prerequisites:		
CHEM 151, 152	General Chemistry I, II.....	8
Co-requisites:		
PHYS 151, 152	General Physics I, II.....	8
MATH 181/182	Calculus I and Calculus II.....	8
OR		
MATH 183	Science Honors Calculus	4

(Students doing MATH 183 may complete the co-requisites with 16 hours)

MATH 241	Differential Equations	or	
MATH 225	Multivariate Calculus		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

Research strongly encouraged

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 under the Biology Department) or for teaching programs in 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
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Co-requisites:

PHYS 151, 152	General Physics I, II	8
MATH 181/182	Calculus I and Calculus II	8

OR

MATH 183	Science Honors Calculus	4
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(Students doing MATH 183 may complete the co-requisites with 16 hours)

MATH 241	Differential Equations	or	
MATH 225	Multivariate Calculus		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

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, WSP)

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. Liberal Arts.

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. 2nd Science. Liberal Arts.

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 2nd Science. Liberal Arts.

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. Liberal Arts.

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 and Health & Wellness: Point 1. Without CHEM 188, 2nd Science and Health & Wellness: Point 1. Liberal Arts.

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.

CHEM 221 Contemporary Organic Chemistry (4, WSP)
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. Liberal Arts.

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. Liberal Arts.

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. Liberal Arts.

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. Liberal Arts.

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. Liberal Arts.

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. Liberal Arts.

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. Liberal Arts.

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. Prerequisite: CHEM 242. Liberal Arts.

- CHEM 352 **Physical Principles of Chemistry** (3, WSP)
 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. Liberal Arts.
- 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 152; and either Prerequisite or Co-requisite: MATH 241 or MATH 225. Liberal Arts.
- 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. Liberal Arts.
- CHEM 453 **Advanced Inorganic Chemistry** (4, WSP)
 Theories of atomic and molecular structure, bonding; emphasis on organometallic chemistry; descriptive chemistry of the elements; current topics of special importance. Prerequisite: CHEM 152. Liberal Arts.
- 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. Liberal Arts.
- CHEM 482 **Senior Capstone: Chemistry Seminar** (1, S)
 Journal reports and discussion of recent developments in chemistry and issues of science and faith. For seniors, except by permission. Liberal Arts.
- CHEM 291, 292, 391, 392; 491, 492 **Research in Chemistry** (1-4, WSP)
 Liberal Arts.
- 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. Liberal Arts.

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, Paul W. Shea, Kulli Tõniste, J. Michael Walters

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 parachurch 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.

12-16 hours in Christian Formation:

CRFM 231

Foundations of Educational Ministry..... 2

4 hours chosen from:

CRFM 332

Christian Formation of Youth..... 2

(If students pursue the Youth Ministry concentration, CRFM 332 counts for concentration, not major)

CRFM 331	Christian Formation of Children	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 or	
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
PSY 326	Family Systems Theory through Film.....	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	Adolescence and Emerging Adulthood	4
CRFM 341, 342	Theological Exploration: Youth Culture I & II (2,2) or	
THEL 300	Christianity & Post-Modernism.....	4

Outdoor Ministries Concentration (minimum 16 hours, must take at least 5 courses)

The outdoor ministries concentration requires the full core of Educational Ministries courses listed above, plus 16-18 hours as follows:

Category A (must take all three):

REC 227	Outdoor Leadership Training.....	4
REC 300	Program Planning and Evaluation	4
REC 401	Natural Resource Management	4
	Two outdoor activity labs	2

Category B (Must choose one):

REC 235	Interpreting the Environment	2,3,or 4
REC 240	Administration of Organized Camps	4
REC 301	Methods and Materials for Camps and Outdoor Education	4

(If using REC 301 for Category B, student needs one more outdoor activity lab credit worth at least one hour to meet Category C)

Category C (must have at least two different outdoor activity labs) 2-3 hours

Courses that may be used in Category C:

PHED 220	Adventure Sports (<i>meets all of Category C</i>).....	3 or 4
PHED 228	Lifeguarding	1
PHED 254	Teaching Net/Wall/Target Sports	2
PHED 255	Teaching Team Passing/Striking/Fielding Sports	2
REC 103	Initiatives	1
REC 104	Backpacking	1
REC 109	Highlander Adventure	2
REC 301	Methods and Materials for Camps and Outdoor Education	4

(REC 301 can only be used in Category C, if not used in Category B)

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

The following courses are required:

CFRM 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 CFRM 442)
- 2. Youth
- 3. Missions
- 4. Urban Ministry
- 5. Sports Ministry*

*Sports Ministry minors may not choose Sports Ministry as their emphasis in a Christian Formation minor.

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

COURSE DESCRIPTIONS

CFRM 231 Foundations of Educational Ministry (2, F13)
Historical, philosophical, and theological developments of religious and Christian education in relation to the practice of ministry.

CFRM/PHED 227 Sports Ministry: The Integration of Faith and Sport (4, S13)
Students will develop an understanding of the sports culture and will learn 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 parachurch organizations will be examined as well as evangelism and discipleship methodologies. Students will practice communication skills within sports ministry settings.

CFRM/PHED 275 Methods & Administration of Sports Ministry (2, S14)
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.

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

CFRM 350 Foundations of Youth Ministry (2, S14)
Eclectic, descriptive, and critical examination of theory and practice of contemporary youth evangelism and discipleship in selected church and parachurch models, including denominational programs, Campus Life, and Young Life.

CFRM 331 Christian Formation of Children (2, F13)
To gain an understanding of the process of faith formation during childhood and to examine effective methods for fostering this formation both in and around the faith community.

CFRM 332 Christian Formation of Youth (2, S14)
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.

CFRM 333 Christian Formation of Adults (2, F13)
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.

CFRM 341 Theological Explorations in Youth Cultures and Ministry I (2, F12)
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 21st 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, F12)
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, WSP)
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, WSP)
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 parachurch agency combining academic work with practical and professional responsibilities and relationships. Prerequisites: MIN 210, EDMN 325, and 330 or permission of the Christian formation 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)

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 of study 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 & the Gospels preferred</i>)	4

MISS	Any 4 hours in Missions (MISS prefix).....	4
MIN 210	Introduction to Christian Ministry	2
CRFM 231	Foundations of Educational Ministry	2
CRFM 325	Bible Study and Teaching Methods.....	2
CHMN 251, 252	Internship	2,2
(See respective course descriptions in Bible, Missions, and Christian Formation.)		

COURSE DESCRIPTIONS

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

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.

Co-requisite:

COMM 101	Presentational Speaking	2
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(Also satisfies the Integrative 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
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 218	Marketing Principles (also listed as BADM 218)
COMM 312	Advertising Principles (also listed as BADM 312)
COMM 313	Public Relations Principles (also listed as BADM 313)

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 32	Principles of Expository Preaching
WRIT 21	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

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.

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. Liberal Arts.

COMM 205 Introduction to Communication Theory (4, S)

This course provides a foundation for subsequent communication courses by introducing the major theories that help to explain human communication behavior. The course encourages students to see theorizing both as 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. Liberal Arts.

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 students to undertake Pro Tools 101 Digidesign Certification exam. This course has a lab fee. 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. This course has a lab fee. Prerequisite: COMM 207.

COMM 214 Introduction to Mass Media (4)

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. Liberal Arts.

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. Liberal Arts.

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. Liberal Arts.

COMM 218 Marketing Principles (4, F)

(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. Liberal Arts.

COMM 225 Intercultural Communication (4, WSP)

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. Liberal Arts.

COMM 226 Personal Media (4, WSP)

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. Liberal Arts.

COMM/ART 228 Digital Video I (4, F)

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.

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. Liberal Arts.

COMM 244 Oral Performance of Literature (4, F14)

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. Liberal Arts.

COMM 245 Theatre Arts (4, WSP)

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, WSP)

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/ART 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, F)

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

COMM 315 Public Relations Principles (4, F)

An overview of the development, management and implementation of professional public relations programs designed to create, enhance or protect the reputations of businesses or organizations. The course explores the roots of PR and proceeds to study research methods, communication strategies and relationship-building efforts with publics that are critical to the organization's success in the marketplace. Prerequisite: COMM/BADM 218.

COMM 316 Advanced Presentational Speaking (2, WSP)

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. Liberal Arts.

COMM 318 Rhetorical Theory (4, WSP)

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. Liberal Arts.

COMM 319 American Public Address (4, F13)

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. Liberal Arts.

COMM 328 Digital Video II (4, S)

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

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, S)

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. Liberal Arts.

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. Liberal Arts.

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

Liberal Arts.

COMM 496 Honors in Communication (4, S)

Liberal Arts.

Courses listed under other departments and counted for communication:

ART 245 Graphic Design I (See course description under art major.)	(4, F&S)
ART 314 The Art and History of Film (See course description under art major.)	(4, S13)
BADM 212 Principles of Management (See course description under business administration major.)	(4, F&S)
MIN 324 Principles of Expository Preaching (See course description under religion major.)	(4, S)
WRIT 214 Literary Non-Fiction (See course description under writing major.)	(4, F&S)
WRIT 304 Screenwriting (See course description under writing major.)	(4, S14)
WRIT 312 Creative Writing in Public Life (See course description under writing major.)	(4, S14)

Computational Physics (major)

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

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

Phone: 585.567.9280

Computational Physics Major: BS (35 hours in major; 8-16 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 (8-16):	
PHYS 151, 152	General Physics I, II 8
MATH 181, 182	Calculus I, II..... 8
or	
MATH 183	Science Honors Calculus 4
Co-requisites (12):	
MATH 241	Differential Equations..... 4
MATH 225	Multivariate Calculus 4
MATH 261	Linear Algebra 4
Required (35) which must include:	
PHYS 251	Mechanics I 4
PHYS 212	Modern Physics..... 2
PHYS 275/276	Experimental Physics Lab 2
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

Phone: 585.567.9280

The computer science major emphasizes the theoretical foundations and application techniques for solving problems in today's technological environment. The major prepares students to effectively use the technology of today and create the technology for tomorrow with a thorough understanding of a programming language and structures as well as foundations of computer architecture and networks. Throughout the major, emphasis is placed on the ability to apply understanding of fundamental concepts to solve problems. Students enter careers as programmers, software engineers, information technology as well as graduate school in a variety of computer-related disciplines.

Major: 52 hours (44 in major, 8 in pre/co-requisites)

Pre/co-requisites:

MATH 181/182 Calculus I and Calculus II 8

Or

MATH 183 Science Honors Calculus 4

(Students doing MATH 183 may complete the prerequisites with 4 hours)

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 courses12

Total hours:44

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

COURSE DESCRIPTIONS

CSCI 115 **Perspectives on Computing** (4, WSP)

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. Liberal Arts.

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. Liberal Arts.

CSCI/MATH 214 **Discrete Mathematics** (2, F13)

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. Liberal Arts.

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. Liberal Arts.

CSCI 226 **Computer Architecture** (4, S14)

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. Liberal Arts.

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. Liberal Arts.

CSCI 245 **Software Engineering** (4, WSP)

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. Liberal Arts.

CSCI 326 **Operating Systems** (4, WSP)

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. Liberal Arts.

CSCI 328 **Foundations of Computing** (4, WSP)

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. Liberal Arts.

CSCI 336 **Programming III** (4, 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. Liberal Arts.

CSCI 340 Databases (4, F12)
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. Liberal Arts.

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. Liberal Arts.

CSCI 420 Networking (4, 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. Liberal Arts.

CSCI 480 Senior Capstone: Computer Science Seminar (4, S)
For seniors, except by permission. Required of all computer science majors. Liberal Arts.

CSCI 391, -2; 491, -2 Independent Study (1, 2, 3 or 4)
Liberal Arts.

CSCI 295, -6; 395, -6; 495 Special Topics in Computer Science (1, 2, 3 or 4 WSP)
Previous topics include: bioinformatics, computer security, neural networks, machine learning, C#, and NET. Liberal Arts.

CSCI 496 Honors in Computer Science (4)
Liberal Arts.

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, Christopher M. Wells, Mark E. Yuly

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, F13)
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 2nd Science. Liberal Arts.

ESCI 212 Environmental Earth Science (4, WSP)
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 2nd Science. Liberal Arts.

ESCI 224 Atmospheric Science	(4, WSP)
Comparative study of planetary atmospheres. Phenomena of Earth's atmosphere and aerospace, weather, meteorology, and climatology. Three lecture, three laboratory hours each week. Liberal Arts.	
ESCI 230 Hydrology	(4, WSP)
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. Liberal Arts.	
ESCI 291, 292, 391, 392, 491, 492 Independent Study	(1, 2, 3 or 4)
Liberal Arts.	
ESCI 295, 395, 495 Special Topics in Earth Science	(1, 2, 3 or 4)
Liberal Arts.	
ESCI 480 Senior Capstone: General Science Seminar	(1, S)
Written thesis and oral presentation on a topic selected for interdisciplinary breadth describing current scientific research in the area of the student's concentration, based on a thorough review of scientific literature.	

Economics (minor)

Department of Business and Economics: Kenneth J. Bates, chair. Paul D. Young, Associate Dean
Faculty: Robert A. Black
E-mail: 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 (except ECON 307, 308 & 309)7 or 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. Liberal Arts.	
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. Liberal Arts.	
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. Liberal Arts.

ECON 212 International Economics (2, WSP)
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. Liberal Arts.

ECON 213 American Economic History I: Colonial Era to 1865 (2, WSP)
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. Liberal Arts.

ECON 214 American Economic History II: 1865 to Present (2, WSP)
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. Liberal Arts.

ECON 237 Comparative Economic Systems (2, F13, F15)
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. Liberal Arts.

ECON 301 Money, Banking & Financial Markets (3, S)
Role of money and financial institutions in a market economy, interest rates, bond markets, money market, yield curve, risk premium, economic principles of bank management, financial regulation, Federal Reserve System influence on banking system. Prerequisites: ECON 210 and 211. Liberal Arts.

ECON 307 Statistics I (2, F&S)
Descriptive statistics: Measures of central tendency and variability, skewness, frequency distributions, graphing, discrete and continuous probability functions, and sampling. Prerequisite: Spreadsheet Competency. Liberal Arts.

ECON 308 Statistics II (2, F&S)
Inferential statistics: Sampling distributions, estimation, hypothesis testing, t-tests, ANOVA, Chi-Squared, correlation, and regression. Prerequisite: BADM/ECON/PSY/SOC 307 or equivalent by placement test. Quantitative Literacy Competency. Does not meet Creation Requirement. Liberal Arts.

ECON 309 Statistics (3, M)
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. Does not meet Creation Requirement. Liberal Arts.

ECON 310 Intermediate Microeconomics (1, WSP)
Short introduction to primary models of consumer and producer behavior, especially indifference analysis of budget optimization and isocost-isoquant analysis of production. Prerequisites: ECON 210 and 211. Liberal Arts.

ECON 311 Intermediate Macroeconomics (1, WSP)
Short introduction to primary models of macroeconomics, especially the IS-LM model, the consumption function, and the investment function. Prerequisites: ECON 210 and 211. Liberal Arts.

ECON 315 Economics of Organization and Strategy (2, S13)
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. Prerequisites: ECON 210, 211. Liberal Arts.

ECON 316 Managerial Economics

(2, WSP)

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. Liberal Arts.

ECON 322 Economic Research Seminar

(1, 2, or 3, WSP)

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. Prerequisite: ECON 201. Liberal Arts.

ECON/BADM 350 Economic Freedom

(2, S)

A study of the factors that relate to why some economies prosper while others struggle to meet the basic needs of their citizens. Common misconceptions and proposed solutions are explored in an effort to determine how effectively to address poverty around the world. Prerequisite: ECON 201. Liberal Arts.

ECON 191, -2; 291, -2; 391, -2; 491, -2 Independent Study

(1, 2, 3 or 4)

Prerequisite: ECON 201. Liberal Arts.

ECON 295, 395, 495 Special Topics

(1-4, WSP)

Group study of selected topics. Liberal Arts.

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, Susan G. Martin, Charles E. Massey, Sunshine R. Sullivan.

Phone: 585.567.9670

Majors: Adolescence Education (leading to certification to teach grades seven to 12 in a specific content area) 44 hours in the major.

Art Education (leading to certification to teach visual arts in grades PK-12). 44 hours in the major; 36 hours in content major (Art as a second 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-requisites. Students majoring in Inclusive Childhood Education also complete a concentration of 30-32 hours.

TESOL (leading to certification to teach English to speakers of other languages in grades PK to 12) 54 hours in the major; plus a 32 hour concentration in Culture, Language and Linguistics.

Physical-Health Education (leading to dual certification in physical education and health education in grades PK 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 PK 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 PK to 12) varied hours depending upon the track chosen. (Please see the *Music* section of the catalog.)

General Information

In the spring semester of 2011, a total of 209 students were enrolled in Education Department majors:

41 in Adolescence Education, seven in TESOL, 96 in Inclusive Childhood Education (ICE), 17 in Physical Education/Physical-Health Education and 48 in Music Education.

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 217 (or 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, Art Ed, 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 continue in the program and to be recommended for teacher certification (in any state), students must earn a grade of B- or better in each of their 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, including successful completion of all field placement requirements with a grade of B- or higher (see note above),
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),
6. Complete all of the required contact hours (varies according to program strand), and
7. Receive formal approval from the Teacher Education Committee.

Adolescence education, art 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, art 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 Tests. 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). 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: augmented history (for social studies); biology, chemistry, English, mathematics, physics, 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 (but not limited to) the following: EDUC 235, EDUC 240, and 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, physics, or Spanish. 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 217	Education and American Culture <i>or</i>	
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

Art Education Major: (44 hours)

This major prepares students to teach visual arts to students in grades PK-12. In addition to completing the Art Education major (44 hours), students also complete a second content major in art (art as a second major, 36 hours. Please see the art section of the catalog for art requirements.) 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 (but not limited to) the following: EDUC 235, EDUC 240, EDUC 346, and EDUC 347.

Required courses:

EDUC 202	Topics in Professionalism	0
EDUC 217	Education and American Culture.....	4
EDUC 219	Educational Psychology.....	4
EDUC 221	Children's Literature OR	
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 346	Elementary Art Methods	2
EDUC 347	Secondary Art Methods	2
EDUC 403	Art Student Teaching: Elementary.....	6
EDUC 404	Art Student Teaching: Secondary.....	6
EDUC 412	Senior Capstone: Seminar in Art Education.....	2

TESOL Major with a concentration in Culture, Language, and Linguistics (54 hours in the major; 32 hours in the concentration)

This major prepares students to teach English to speakers of other languages at the elementary (grades PK through 6) and the secondary level (grades 7 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 114, EDUC 221, EDUC 235, EDUC 240, EDUC 326, and EDUC 327.

Required courses:

EDUC 114	Mathematical Concepts and Reasoning	4
EDUC 202	Topics in Professionalism	0
EDUC 217	Education and American Culture or	
EDUC 218	Secondary 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 320	Curriculum and Assessment in Inclusive Classrooms.....	4
EDUC 326	TESOL Practicum I: Elementary	1
EDUC 327	TESOL Practicum II: Secondary.....	1
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 371	TESOL Methods: ELA.....	2
EDUC 372	TESOL Methods: Content areas.....	2
EDUC 422	TESOL student teaching: elementary level	6
EDUC 423	TESOL student teaching: secondary level	6
EDUC 424	Senior Capstone: Seminar in TESOL	2

Students majoring in TESOL education must complete a concentration in Culture, Language, and Linguistics.

The concentration requires:

INCL/ANTH/SOC 243 Cultural Anthropology	4
Course work in one Language Other Than English	0-12

LING 220	Intro to Linguistics	4
LING 350	First and Second Language Acquisition	4
LING 351	Linguistics for TESOL	4
LING 370	Understanding English Grammar	4
Electives	LING and/or INCL electives chosen under advisement	0-12

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 (but not limited to) the following: EDUC 114, EDUC 221, EDUC 235, EDUC 240, and EDUC 314.

Students will choose either, a) a concentration in art; communication; English; French language, culture, and linguistics; humanities; intercultural studies; mathematics; math/science; modern languages; science; music; social studies; Spanish language, culture, and linguistics; TESOL (teaching English to speakers of other languages); 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.]

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. 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 3 of the following) (12 hours)

ART 132	Art and Architecture in Europe	4
ART 231	Ancient Art History	4
ART 232	Renaissance & Baroque Art History	4
ART 235	African Art History	4
ART 236	Asian Art History Survey	4
ART 237	Modern & Contemporary Art History	4
ART 314	Art & History of Film	4

Concentration (12 hours) Students will take a total of 12 hours of studio course work at the 200-level or higher.

2) Communication Concentration (minimum of 30 hours)

Pre-requisites (2 hours)

COMM 101	Presentation Speaking	2
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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 be made only 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).

Pre-approved electives include: COMM 244 Oral Performance of Literature; COMM 245 Theatre Arts; COMM 316 Advanced Presentational Speaking; COMM 318 Rhetorical Theory; COMM 319 American Public Address; COMM 330 Conflict Management; ART 314 The Art of History and Film; PSY 326 Family Systems Theory through; WRIT 214 Literary Non-Fiction; WRIT 304 Screenwriting; and WRIT 312 Creative Writing in Public Life. Other electives must be approved by the Chairs of the Communication and Education Departments.

3) English Concentration (minimum of 30 hours)

Pre-requisites (2-4 hours)

WRIT 101	Writing in the Liberal Arts (4) or	
ENGL 207	Intro to Literary Studies	2

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).

ENGL 202: Literary Voices, EDUC 221 Children's Literature and EDUC 223 Adolescent Literature are also permissible electives for this concentration.

4) French Language, Culture & Linguistics Concentration (minimum of 30 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

*(Note: If you enter Houghton College with demonstrated **competency** 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 **credit**, 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.)*

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 203H	Honors Literature & Wisdom (8 hours – 4 count for Literature)	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 203H	Honors Literature & Wisdom (8 hours – 4 count for Philosophy)	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)

Art History

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

Music History

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
MHS 333	Music History and Literature III.....	3
MHS 334	Music History and Literature IV	3

Elective chosen from either ENGL, PHIL, or HIST (selected from options listed above) (2-5 hours)

Note: Writing in the Liberal Arts (WILA) and Western Civilization *do not* count toward the Humanities concentration.

6) Intercultural Studies Concentration (minimum of 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.....	0-4

Electives (14-20 hours) – please select additional elective courses with input from your advisor(s).

Suitable electives are any **Liberal Arts (LA)** 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	Calculus I.....	4
MATH 182	Calculus 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 (minimum of 30 hours)

Mathematics (at least 14 hours)

EDUC 114	Mathematical Concepts & Reasoning.....	4
MATH 181	Calculus I.....	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: Organisms to Ecosystems.....	4

	BIOL 152	General Biology: Cellular Biology and Genetics.....	4
	BIOL 217	Human Anatomy & Physiology	4
<i>Chemistry</i>			
	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
<i>Earth Science/Physics</i>			
	ESCI 101	Physical Geology.....	(3-4)
	ESCI 212	Environmental Earth Science	(3-4)
	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 (minimum of 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 (minimum 30 hours)

MUS 250	Music in Christian Perspective	2
Music Theory and Musicianship Studies (14-16 hours)		
MTH 225	Music Fundamentals Review (suspended 2012F).....	0-2*
MTH 226	Musicianship Development: Intro to Tonality.....	2
MTH 227	Basic Tonal Harmony.....	3
MTH 228	Music Development: Tonal Melody & Harmony.....	1
MTH 325	Advanced Total Harmony & Counterpoint	3
MTH 326	Music Development: Advanced Tonality.....	1
MTH 327	The World of Contemporary Music	3
MTH 328	Musicianship Development: The World of Contemporary MusicI	
Music Literature, Stylistic, and Historical Studies (10 hours)		
MLT 211	Intro to Music and Listening	4
MHS 333	Music History & Literature III*	3
MHS 334	Music History & Literature IV*	3

Or entire Music History Sequence: MHS 231 (2), 232 (2), 333 (3), 334 (3)

Ensemble Participation – minimum 4 semesters of participation in major ensemble with or without credit (credit does not count toward 30 credit minimum).

Electives (2 -4 hours) – select music elective(s) in consultation with your curriculum advisor.

MCHU 312	Recent Congregational Song.....	2
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MCHU 451	Music and Worship	4
MTH 367	Adv Global Musicianship	2
MLT 4XX	Instrument/Vocal Literature.....	2

*Note: MTH 225 Music Fundamentals Review has been suspended as of 2012F. Students concentrating in music who demonstrate competency with music fundamentals will be exempt from this requirement; students needing to demonstrate proficiency in this area will be directed to take an online course to meet this competency.

11) Science Concentration (minimum of 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 (0-16)

BIOL 103	Fundamentals of Biology	4
BIOL 151	General Biology: Organisms to Ecosystems.....	4
BIOL 152	General Biology: Cellular Biology and Genetics.....	4
BIOL elective 105 or above		4

(Note: BIOL 151.152 are prerequisites for most upper level Biology courses.)

Earth Science (0-12)

ESCI 101	Physical Geology	3-4
ESCI 212	Environmental Earth Science.....	3-4
ESCI elective above 102.....		4

Chemistry (0-15)

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 (0-16)

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

(Choose from HIST 126, 220, 359, 360, 361, 362, or an approved ST course in American History chosen under advisement)

HIST elective above 220.....	4
HIST elective, non-European, non-American History	4

Political Science (4 hours) *select one of the following options*

POLS 205	In Search of Justice	4
POLS 220	The American Political System.....	4
POLS 375	Immigration and Citizenship.....	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
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(or another appropriate PSY elective with the approval of the appropriate department chairs)

SOC 101	Sociological Imagination or	
ANTH 243	Cultural Anthropology.....	4

Two ECON courses numbered 210 or above.....	2, 2
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Any POLS course number 204 or above	4
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(POLS 210 World Regional Geography recommended)

13) Spanish Language, Culture & Linguistics Concentration (minimum of 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 350	Advanced Spanish Grammar & Composition.....	4
SPAN 407	Hispanic World Cultures	4

Electives (4-16 hours)

Please select additional SPAN elective course(s) with input from your advisor(s).

14) TESOL Concentration (Teaching English to Speakers of Other Languages)

(**minimum 34 credits**, in most cases students concentrating in TESOL will earn 36 credits)

Language other than English: (12)

Note: If you enter Houghton College with demonstrated competency in a language, you still must complete twelve hours of course work in a language other than English to meet the requirement for this concentration.

Linguistics, English Grammar, and TESOL Methods: (24)

Core: (20)

LING 220	Introduction to Linguistics	4
LING 350	First and Second Language Acquisition.....	4
LING 351	Linguistics for TESOL	4
LING 370	Understanding English Grammar.....	4
EDUC 371	TESOL Methods: ELA.....	2
EDUC 372	TESOL Methods: Content Areas.....	2

Elective (choose one): (4)

LING 312	Sociolinguistics	4
LING 322	Phonetics	4
LING 323	Phonology I	4
LING 333	Grammar I.....	4

Note: According to NYS teacher certification requirements (as of April 2011), ICE graduates who are granted an Initial Teaching Certificate from New York State and who have completed the coursework included in this concentration, achieving a grade of C or better in each course, may be able to receive Initial ESOL certification through the Individual Evaluation for Additional Classroom Teaching Certificate pathway (<http://eservices.nysed.gov/teach/certhelp/CertRequirementHelp.do>).

15) Writing Concentration (30 hours)

Pre-requisites (2-4 hours)

WRIT 101	Writing in the Liberal Arts (4) or	
ENGL 207	Intro to Literary Studies	2

Note: If you enter Houghton College with writing 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). ENGL 202: Literary Voices is an acceptable elective for this concentration.

Education minor: 14-16 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
Or		
EDUC 218	Secondary Education and American 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

COURSE DESCRIPTIONS

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. Liberal Arts.

EDUC 218 **Secondary Education and American Culture** (4, WSP)

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. Liberal Arts.

EDUC 223 **Adolescent Literature** (4, F)

Students will read and analyze a variety of literature of interest to adolescents with an eye toward understanding adolescents and their place in society, developing criteria for evaluating adolescent literature, and exploring current trends in this literature. 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. Liberal Arts.

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, S13)

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. Liberal Arts.

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, M13)

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, M14)

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.

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, WSP)

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 326 TESOL Practicum I: Elementary

(1, F)

Two half days or one full day per week in an elementary TESOL placement. 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, EDUC 328, and EDUC/LING 371. Prerequisites:** EDUC 202, EDUC 219, and EDUC 235.

EDUC 327 TESOL Practicum II: Secondary

(1, S)

Two half days or one full day per week in a secondary TESOL placement. 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 329 and EDUC 372. Prerequisites:** EDUC 235, EDUC 326, EDUC 328.

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 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/ART 346 Art Education: Elementary Methods (2, S)

This course analyzes learning styles and cognitive theory in relationship to educating youth in visual arts, (grades PK-6). Students will discuss and work in a diversity of art materials and methods appropriate to grade level, relating them to integrated lessons addressing multiple student populations. Course work includes lectures, studio experiences, collaborative assignments, and demonstrations. Prerequisite: EDUC 338 or permission of instructor.

EDUC/ART 347 Art Education: Secondary Methods (2, S)

This course examines current assessment and instructional methods of teaching visual art to secondary-level students (grades 7-12). The role of the visual arts in the secondary level curriculum will be examined through lectures, discourse and projects focusing on media appropriate for grade level. Course focuses on current instructional theories in viewing and analyzing artwork, teaching methodologies of studio art, art history and theories of aesthetics discourse. Prerequisite: EDUC 338 or permission of instructor.

EDUC 355 Theory and Practice of Bilingual Education (3, WSP)

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 371 TESOL Methods: ELA (2, F)

Examines the language, reading and writing development of English language learners. It explores assessment and instructional methods of teaching English Language Arts to speakers of languages other than English. It also explores ways of creating a classroom learning environment that encourages English language and literacy development for all learners. **Prerequisites: LING 220, LING 350, and EDUC 351, or permission of instructor.**

EDUC 372 TESOL Methods: Content Areas (2, S)

Explores assessment and instructional methods designed to make content areas (math, science, social studies) concepts comprehensible while promoting English language development. **Taken concurrently with EDUC 327 and EDUC 329. Prerequisite: EDUC 371.**

EDUC 403 Student Teaching in Art Education: Elementary (6 F13&S14)

Six-to-seven week placement in an art setting at the elementary level (grades PK-6). The experience will include a minimum of two weeks with full teaching responsibilities. **(See department policy on "Employment and Activities While Student Teaching.")**

EDUC 404 Student Teaching in Art Education: Secondary (6, F13&S14)

Six-to-seven week placement in an art setting at the secondary level (grades 7-12). The experience will include a minimum of two weeks with full teaching responsibilities. **(See department policy on "Employment and Activities While Student Teaching.")**

***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)

Six-to-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)
Six-to-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, 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 412 Senior Capstone: Seminar in Art Education** (2, F13&S14)
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 403 & 404.**

***EDUC 422 TESOL Student Teaching: elementary level** (6, F&S)
Six-to-seven 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. (See department policy on “Employment and Activities While Student Teaching.”)

***EDUC 423 TESOL Student Teaching: secondary level** (6, F&S)
Six-to-seven 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. (See department policy on “Employment and Activities While Student Teaching.”)

***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 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 WSP)
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 WSP)

EDUC 496 Honors in Education (2, or 4 WSP)

***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, Christopher M. Wells, Mark E. Yuly

Phone: 585.567.9280

Applied Physics Major — Engineering Emphasis: BS (35 hours in major; 8-16 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 (8-16):		
PHYS 151,152	General Physics I, II	8
MATH 181, 182	Calculus I, II	8
or		
MATH 183	Science Honors Calculus	4
Co-requisites (12):		
MATH 241	Differential Equations.....	4
MATH 225	Multivariate Calculus.....	4
CHEM 151	General Chemistry I or	
CSCI 211	Programming I.....	4
Required (35):		
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.....	2
PHYS 275/276	Experimental Physics Lab	2
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 181, 182	Calculus I, II.....	8
or		
MATH 183	Science Honors Calculus	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	General Biology: Organisms to Ecosystems	4
BIOL 152	General Biology: Cellular Biology and Genetics.....	4
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

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.....	2
ENGL 316	Literary Criticism	2
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 OR	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 ENGL courses totaling 16 hours:

Required course: ENGL 207 Introduction to Literary Studies	2
Other (ENGL) literature courses.	14

COURSE DESCRIPTIONS

ENGL 111 College Literary Studies (3, S)
The principles of literary interpretation. Topical thematic study of texts, the reading process, and critical perspectives to develop analytical thinking and appreciation. Taught at participating high schools to their selected, qualified students. Culture: Literature. Liberal Arts.

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. Liberal Arts.

ENGL 207 Introduction to Literary Studies (2, F)
An introduction to the principles and practices of English studies. Emphasis on writing critical papers on the four major genres. Literary interpretation using appropriate MLA documentation. Development of critical vocabulary, and literary terms. Required of English majors. Competency: Writing. Liberal Arts.

ENGL 213 English Literature I (2, F13)
Surveys major works and literary movements in England from *Beowulf* through Neoclassicism. Provides biographical, historical, and ideological information to enhance understanding. Culture: Literature. Liberal Arts.

ENGL 214 English Literature II (2, F13)
Surveys major works and literary movements of the Romantic, Victorian, modern, and postmodern periods in their biographical, historical, and ideological contexts. Culture: Literature. Liberal Arts.

ENGL 217 American Literature I (2, F12)
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. Liberal Arts.

- ENGL 218 American Literature II** (2, F12)
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 20th and 21st centuries. Culture: Literature. Liberal Arts.
- ENGL 311 Literature in the Age of Shakespeare** (4, F12)
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. Liberal Arts.
- ENGL 312 Literature in the Age of Enlightenment** (4, WSP)
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. Liberal Arts.
- ENGL 313 Romanticism in Literature and Culture** (4, S13)
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. Liberal Arts.
- ENGL 314 Victorian Literature and Culture** (4, F12)
Literature of the Victorian period in the context of selected intellectual, artistic and popular culture movements. Liberal Arts.
- ENGL 315 Modern and Contemporary Drama** (4, S14)
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. Liberal Arts.
- ENGL 316 Literary Criticism** (2, F)
Theoretical and practical study of the principles of criticism. Introduction to contemporary critical schools. Major research using MLA. Required of English major. Liberal Arts.
- ENGL 319 Modern and Contemporary American Poetry** (4, F12)
American poetry from 1900 to present. Emphases on trends and selected major figures such as Eliot, Frost, Pound, Stevens, Williams, Oliver, Gluck, and Olds. Liberal Arts.
- ENGL 320 Modern and Contemporary British Poetry** (4, F13)
British poetry from 1900 to present. Emphases on trends and selected major figures such as Hopkins, Hardy, Yeats, Auden, Thomas, Larkin, Heaney, and Duffy. Liberal Arts.
- ENGL 321 Modern and Contemporary English Fiction** (4, S14)
An exploration of major trends in 20th and 21st 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. Liberal Arts.
- ENGL 322 American Fiction** (4, S13)
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. Liberal Arts.
- ENGL 334 The American Short Story** (4, WSP)
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. Liberal Arts.
- 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. Liberal Arts.
- ENGL 345 Literatures of the Cultures of Central and Southeastern Europe** (4, F)
Introduction to and survey of the literatures of central, eastern and southeastern Europe including samples from Catholic, Orthodox, and Muslim cultures. The course will cover a selection of novels, essays, and poetry.
- ENGL 350 Major Author: Shakespeare** (4, F13)
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. Liberal Arts.

ENGL 353 Internship for English Majors (4, WSP)
Opportunities for off-campus experiences investigating a career option in fields other than teaching, such as advertising, government service, industrial publications, and library science. Liberal Arts.

ENGL 355 Modern English Grammar in Historical Perspective (4, WSP)
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. Liberal Arts.

ENGL 361 Contemporary World Literature (4, F12)
Selections from world masterpieces of the 20th century, especially novels since World War II from the non-English-speaking world. Liberal Arts.

ENGL 390 Special Topics in Literature (1, 2, 3, or 4, WSP)
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. Liberal Arts.

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 19th Century, and Prize-Winning Literature and the Formation of Literary Canons. By permission of instructor only. Liberal Arts.

ENGL 291, -2; 391, -2; 491, -2 Independent Study (1, 2, 3, or 4)
Liberal Arts.

ENGL 496 Honors in English (4)
Liberal Arts.

Environmental Science/ Environmental Studies

(see Biology)

Equestrian Studies (minor)

(for major in Equestrian Studies see Recreation with Equestrian Studies Option)

Department of Leisure Studies: Thomas R. Kettelkamp, chair. Marcus W. Dean, Associate Dean

Faculty: Andrea N. Boon, Jo-Anne O. Young

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
EQST 223	Foundations of Equestrian Studies	4

EQST 224	Riding Instructor Certification	3
	Equestrian electives (EQST 200 or above)	5

Note: no more than eight hours of EQST 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. EQST 113 and EQST 114 have a single fee; others have double fees.

EQST 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.

EQST 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: EQST 113 or permission. Health and Wellness: Point 4.

EQST 223 Foundations of Equestrian Studies (Activity Lab) (4, S)
Principles of horse management, stable design, equestrian competition, and recreation management.

EQST 224 CHA Riding Instructor Certification (3, M)
Certified 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: EQST 114 and EQST 223 or permission.

EQST 230 Basic Western Riding (2, F)
Philosophy and techniques of western riding needed for ranch work, and basic western competitions. Prerequisite: EQST 113 or permission.

EQST 235 CHA Instructor of Riders with Disabilities Certification (1, WSP)
Certified Horsemanship Association (CHA) curriculum: CHA clinic and instructor of riders with disabilities (cognitive and physical) certification. Prerequisite: EQST 224 or permission.

EQST 240 Teaching Riding in Bolivia (2, WSP)
Combines teaching with intercultural experience in a missions outreach setting. Students will teach riding in Club Hipico 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: EQST 224 or permission.

EQST 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: EQST 114 or permission. Health and Wellness: Point 4.

EQST 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: EQST 276 and EQST 325, or permission. Health and Wellness: Point 4.

EQST 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: EQST 276 or permission.

EQST 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: EQST 114 or permission. Health and Wellness: Point 4.

EQST 326 Horsemanship: Jumping II (2, S)
Building skills, refining techniques, and expanding technical knowledge learned in EQST 325. Prerequisite: EQST 325 or permission.

- EQST 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: EQST 326 or permission.
- EQST 328 Horse Show Judging

(2, F13)
- Lectures and field trips incorporating judging assignments for learners; understanding the duties of the judge; using good judging to educate riders. Prerequisites: EQST 276 and EQST 325 or permission.
- EQST 337 Adventure Trails Riding and Guiding

(2, F)
- 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: EQST 114 or permission.
- EQST 334 Competition Dressage

(2, S)
- Builds on foundation laid in EQST 276 and guides students into the next two levels towards FEI. Prerequisite: EQST 276 or permission.
- EQST 421 Musical Freestyle Dressage

(2, S)
- Combines a solid foundation in classical dressage with the artistry of choreography and music. Prerequisite: EQST 334 or permission.
- EQST 295, 395, 495 Special Topics

(2 or 3, WSP)
- 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

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 326	Family Systems Theory through Film.....	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, and Theology.

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
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.

French minor: 16 hours beyond FREN 102. It may also include FREN 205 Intermediate French.
German minor: 16 hours beyond GERM 102. Self-Designed minor available. See page 126.
Spanish minor: 16 hours beyond SPAN 102. It may also include SPAN 205 Intermediate Spanish.

SPANISH MAJOR (36 hours)
The Spanish major consists of 36 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) *(These may be met through placement testing or previous work.)*

SPAN 101	Spanish Level 1.....	4
SPAN 102	Spanish Level 2	4
SPAN 205	Intermediate Spanish	4

Co-requisite:

INCL 211	Intercultural Transition	0-1
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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
SPAN 485	Senior Seminar: Spanish	4

Open Options: (16 hours) *(Must take at least one course in Latin-American Literature from the following.)*

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

(Must take at least one course in Spanish Peninsular Literature from the following.)

SPAN 401	Survey of Spanish Literature	4
SPAN 402	Spanish Literature and Film	4
SPAN 416	Eve and Mary in Spanish Literature	4
SPAN 417	Female Voice 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 391	Spanish Independent Study	1-4
SPAN 481	Spanish Internship	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.

COURSE DESCRIPTIONS

ARABIC

ARAB/LING 101 Arabic Language (4, S14, 16)

Arabic is spoken in various regional dialects throughout the Arab world. This class introduces Modern Standard Arabic (MSA), the commonly understood language used in all media and the academic and intellectual community. While MSA is not the “street language” of any particular country, it provides an excellent grounding towards fluency in any particular dialect in the Arab world. Those who wish to go beyond this one semester introduction will be directed to an intensive Arabic program within the Arab world.

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.

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. Liberal Arts.

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. Liberal Arts.

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. Liberal Arts.

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. Liberal Arts.

FREN 305 French Phonetics (4, S14)

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. Liberal Arts.

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. Liberal Arts.

FREN 350 Advanced French Grammar and Composition (4, F14)

A study of advanced grammar concepts and style. Extensive practice in writing in different styles and time frames. Prerequisite: FREN 301 or equivalent. Liberal Arts.

FREN 395 Special Topics (4, F13)
Study of literary and cultural topics not covered elsewhere in the curriculum. Prerequisite: FREN 301 or equivalent or permission of instructor. Liberal Arts.

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. Liberal Arts.

FREN 461 Advanced French Conversation: Current Events (4, S15)
Intensive oral practice with a focus on current issues in Francophone countries. Prerequisite: FREN 301 or permission of instructor. Liberal Arts.

FREN 391, -2; 491, -2 Independent Study (1, 2, 3 or 4)
Liberal Arts.

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. Liberal Arts.

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. Liberal Arts.

SPAN 111 Spanish for Human and Social Services I (4, WSP)

SPAN 112 Spanish for Human and Social Services II (4, WSP)
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, WSP)

SPAN 122 Spanish for Educators II (4, WSP)
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, WSP)

SPAN 132 Spanish for Business and Finance II (4, WSP)
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, WSP)

SPAN 142 Spanish for Health Professionals II (4, WSP)
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. Liberal Arts.

- SPAN 207 or 346 Aspects of Costa Rica: Language, Culture, and People** (3 or 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.)
 This is a 3-week service-learning experience in Costa Rica, hosted in the homes of nationals. 30 hours of intense language instruction at Language in the San José area. Opportunities for service, worship, relationship-building and excursions present a broad picture of life in Latin America. Prerequisite: SPAN 101 or equivalent. Cost: check with professor. Liberal Arts.
- 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)*. Liberal Arts.
- 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. Liberal Arts.
- SPAN 305 Spanish Phonetics** (4, F)
 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. Liberal Arts.
- SPAN 311 Hispanic World Current Affairs** (4, Summer)
 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. Liberal Arts.
- SPAN 312 The Latino in the U.S.** (4, WSP)
 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. Liberal Arts.
- SPAN 350 Advanced Spanish Grammar and Composition** (4, S)
 A comprehensive course in structure and usage. Prerequisite: SPAN 301 or equivalent or permission. Liberal Arts.
- SPAN 395 / 495 Special Topics** (4, WSP)
 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. Liberal Arts.
- SPAN 401 Survey of Spanish Literature** (4, F13)
 Representative works of Spanish Peninsular literature from the pre-medieval *jarchas* to contemporary times. Prerequisite: SPAN 350 or permission of instructor. Liberal Arts.
- SPAN 402 Spanish Literature and Film: Twentieth Century - Present** (4, F12)
 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. Liberal Arts.
- SPAN 407 Hispanic World Cultures** (4, F)
 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. Liberal Arts.
- SPAN 410 Advanced Conversation: Film and Culture** (4, F13)
 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. Liberal Arts.

SPAN 412 Latin American Human Rights Narratives (4, WSP)
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. Liberal Arts.

SPAN 414 Faith and Society in Latin America (4, WSP)
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. Liberal Arts.

SPAN 415 Evita and Her Sisters: Women in Latin America Lit (4, WSP)
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. Prerequisite: SPAN 350 or permission. Liberal Arts.

SPAN 416 Eve and Mary in Spanish Literature (4, WSP)
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. Liberal Arts.

SPAN 417 Female Voice in Spanish Literature (4, WSP)
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. Liberal Arts.

SPAN 418 Latin American Boom Literature (4, WSP)
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. Liberal Arts.

SPAN 423 Masterpieces of Spanish-American Literature (4, S13)
Selected readings from outstanding Spanish-American authors representing different countries, periods and genres. Prerequisite: SPAN 350 or permission of instructor. Liberal Arts.

SPAN 481 Spanish Internship (1-4, WSP)
Experience in a college class. Assist a professor in an intermediate class 3 days a week. Introduction to prevailing methods of instruction. Prerequisite: Spanish major, instructor permission. Priority to upperclassmen and education students. Liberal Arts.

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, portfolio demonstrating the process of their learning, presentation, and a final project. Prerequisites: Senior, department chair approval. Liberal Arts.

SPAN 191, -2; 291, -2; 391, -2; 491, -2 Independent Study (1, 2, 3, or 4)
Liberal Arts.

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. Liberal Arts.

SELF-DESIGNED MINOR IN GERMAN

A 16-hour Self-Designed minor as determined by arrangement with the Chair of the Department of World Languages. 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.

Forestry (see Biology)

French (see Foreign Languages)

General Science (major)

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

Phone: 585.567.9280

General Science Major: BS (45-49 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 181, 182	Calculus I, II.....	8
or		
MATH 183	Science Honors Calculus	4
PHYS 151, 152	General Physics I, II	8
BIOL 151	General Biology: Organisms to Ecosystems.....	4
BIOL 152	General Biology: Cellular Biology and Genetics	4
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, WSP)

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. Liberal Arts.

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. Doezenia, David A. Howard, Meic Pearse

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.

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 Economic.....	2
HIST xxx	American History.....	4, 4
HIST xxx	European History.....	4, 4
HIST xxx	Non-European, non-American History.....	4, 4
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. Liberal Arts.

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. Liberal Arts.

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. Liberal Arts.

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. Liberal Arts.

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. Liberal Arts.

American History

HIST 126 New York State History (4, WSP)

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. Liberal Arts.

HIST 220 American History Survey (4, F)

Overview of American history to the present. Culture: History. Liberal Arts.

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 of them. Also considers social science explanations of urban development (why cities?), 20th century trends (suburbanization, metropolitanization) and reactions to them, and ponders the future of cities in the 21st 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. Liberal Arts.

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. Liberal Arts.

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. Liberal Arts.

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. Liberal Arts.

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. Liberal Arts.

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. Liberal Arts.

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. Liberal Arts.

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. Liberal Arts.

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. Liberal Arts.

HIST 347 The Balkans and Eastern Europe: Early Middle Ages to Present

(4, F)

A survey of Balkan and Eastern European history with special emphasis upon the interactions of Catholic, Orthodox, and Muslim cultures; ethnic and religious diversity; the fraught relationship with western Enlightenment and post-Enlightenment ideas; and mutually exclusive nationalist interpretations. Liberal Arts.

HIST 368 The Reformation

(4, F)

A survey of the continental, English, and Roman Catholic reformation of the 16th century. Culture: History. Liberal Arts.

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. Liberal Arts.

HIST 371 Religion, Fascism, and Communism in 20th Century Europe

(4, WSP)

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. Liberal Arts.

HUM 401 Pagans and Christians: Ancient and Medieval Texts

(4, WSP)

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. Liberal Arts.

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. Liberal Arts.

HIST 224 Latin American History since 1800

(4, F)

An introductory survey of Latin America from the revolutionary era to the present. Culture: History. Liberal Arts.

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. Liberal Arts.

*HIST 251 East African History (See Off-Campus Programs section for course description.)	(4, S)
*HIST 355 East Asia: History and Politics 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. Liberal Arts.	(4, WSP)
HIST 381 Historiography History of historical writings and methods; theories of history. Liberal Arts.	(4, WSP)
HIST 295, 395, 495 Special Topics (CDRP, see Foreign Languages) Group study of selected topics; open only by permission. Liberal Arts.	(4, WSP)
HIST 481 Senior Capstone: Senior History Seminar 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. Liberal Arts.	(4, S)
HIST 191, -2; 291, -2; 391, -2; 491, -2 Independent Study Liberal Arts.	(1, 2 or 4, WSP)
HIST 496 Honors in History Liberal Arts.	(4, WSP)

Honors Programs

HOUGHTON HONORS PROGRAMS: Director: Mark D. Hijleh

Houghton College offers three distinct honors programs, two in the humanities and one in the sciences. The programs vary in length, though the majority of the coursework for all of them is completed in the first year. Students have the option to write an honors thesis in their senior year. Qualified incoming students will be invited to apply for entrance into the honors program. Final selection of honors students will occur in early spring prior to their matriculation. Students in any one of the honors programs 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.

Contemporary Contexts Honors Program: Program Coordinators and teaching faculty: Jonathan P. Case, Benjamin J. B. Lipscomb, Susan Bruxvoort Lipscomb, Peter C. Meilaender, Theodore J. Murphy

The Contemporary Contexts Honors Program offers students the opportunity to explore some of the roots of Western culture coupled with a chance to respond to some of the current realities of the “river of custom” in which we all swim. In 2012-2013 the program will have as its theme: Modernity and the Search for Meaning. The one hour seminar in the fall will be followed by an eight hour integrated course in the spring. In May the group will travel to Vienna for three weeks of study and complete the program with a four hour course focused on postmodernism the following fall. Completion of INTS 161, 162, 163, and 164 together meets IS requirements in Faith Foundation: Theology, Culture: Philosophy, Culture: Literature, Culture: Art or Music; Community: Political Science; as well as the Writing Competency.

East Meets West: Program Director: Meic Pearse

This course of study in the spring semester, Mayterm, and the following fall semester focuses on the relationship between the “East” (Eastern Europe), the “Middle East,” and the “West”. Students take a total of 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: Christopher Wells

This course of study centers around the integrative, problem-based Science Honors course, which comprises 12 hours of coursework in both the fall and spring semesters, 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. An optional Mayterm study trip to the Pacific Northwest rounds out the program. 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 153 East Meets West (9, 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. Liberal Arts.

POLS 295H ST: East Meets West Honors Political Science (3, F13)

Completion of the political science component of the 2012-2013 East Meets West program; reserved for students in that program. Prerequisite: INTS 153 (spring/Mayterm 2013). Community: Political Science. Liberal Arts.

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. For 2012-2013 the focus will be on issues surrounding climate science. 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 2nd Science. Liberal Arts.

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. Liberal Arts.

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. Liberal Arts.

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. Liberal Arts.

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. Liberal Arts.

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. Liberal Arts.

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. Liberal Arts.

INTS 151 Climate Science on the West Coast

(2, M13)

This two-week, off-campus course includes visits to Portland and Eugene, Oregon to observe environmental sustainability practices while also working with faculty in the lab at the University of Oregon, continues with field work monitoring Humboldt Bay under the supervision of Humboldt State University faculty in Arcata, California while considering some climate-related features of Mt. Shasta National Forest and the Sisson-Callahan National Recreation Trail, and concludes with an inquiry into the workings of the Bay Aquarium in San Francisco. Optional. **Reserved for Science Honors students.** Liberal Arts.

INTS 161 Foundations of Contemporary Contexts Honors

(1, F12)

Introduction to the topics and methods of the Contemporary Contexts honors program. Analytical and critical reading and writing, coordinated with seminar-style discussion and other group activities. Liberal Arts.

INTS 162 Contemporary Contexts Honors: Modernity and the Search for Meaning: Origins and Issues

(8, S13)

Integrative exploration of Western modernity from the Reformation to the crisis at the turn of the 20th century. Investigates modern understandings of what it means to be rational, social, material, free, a self, and “modern”. Background lectures interspersed with frequent seminar-style discussions of primary texts and works of art; regular paper assignments. Liberal Arts.

INTS 163 Contemporary Contexts Honors: *Fin de siècle* Vienna and the Modern Search for Meaning

(3, M13)

Course conducted in Vienna. Integrative exploration of the crisis of Western modernity in the late 19th and early 20th centuries, focused on developments in philosophy, literature, politics, and the arts in turn-of-the-century Vienna. Background lectures interspersed with frequent seminar-style discussions of primary texts and works of art and music; regular excursions to visit museums and important sites in Vienna. Liberal Arts.

INTS 164 Contemporary Contexts Honors: Modernity and Postmodernity

(4, F13)

Integrative exploration of Western Modernity from World War I to the present, with special consideration of the meaning of “postmodernity”. Investigates modern and postmodern understandings of what it means to be rational, social, material, free, a self, and “postmodern”. Background lectures interspersed with frequent seminar-style discussions of primary texts and works of art; regular paper assignments. Liberal Arts.

THEL 209H Honors Introduction to Christianity

(4, F12)

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. Completion of the 2011-2012 Contemporary Contexts Honors program; reserved for students in that program. Faith Foundation: Theology. Liberal Arts.

Humanities (major)

Department of Philosophy: W. Christopher Stewart, chair, Associate Dean and Program Director

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 Project	1

COURSE DESCRIPTIONS

HUM 306 Varieties of Postmodernism (3, WSP)
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. Liberal Arts.

HUM 395 Special Topics (1, 2, 3, or 4)
Liberal Arts.

HUM 401 Pagans and Christians: Ancient and Medieval Texts (4, WSP)
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. Liberal Arts.

HUM 481 Senior Capstone: Humanities Project (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. Liberal Arts.

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

E-mail: business@houghton.edu

Phone: 585.567.9440

Major (BS): 64-65 hours in the major (22-23 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.

Co-requisites:

BADM 45	Spreadsheet Competency	0
ECON 201	Intro to Economics	2
ECON 210	Principles of Microeconomics <i>or</i>	
ECON 211	Principles of Macroeconomics	2
BADM 301	Business Communication.....	2
	Co-Requisites total	6

Business Core

ACCT 212	Managerial Accounting.....	3
BADM 212	Principles of Management.....	4
BADM 213	Business Law I <i>or</i>	
BADM 214	Business Law II.....	4
BADM 218	Marketing Principles.....	4
BADM 307 and 308	Statistics I/II.....	2, 2
Or BADM 309	Statistics.....	3
BADM 417	Senior Capstone: Business Strategy and Policy	4
	Business Core total	22 or 23

Information Technology

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. Hegeman, Ndunge Kiiti, Eli Knapp, Don Little, Ronald J. Oakerson, Paul W. Shea
Phone: 585.567.9634

Major: 34-54 hours which includes a 22-30 hour core plus either six to eight hours of electives or one 16-20 hour concentration. The concentration options include: French, International Development, Islamic Studies, Linguistics, Missions, Spanish, TESOL, and Urban Studies.

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, multi-cultural contexts in the US, and the 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 – 8 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 <i>or</i>	
POLS 345	Community Organization & 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.

Art Department

INCL/ART 238 Art and Music in Australia and New Zealand

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 22 Latin American History

HIST 249 African History

HIST 251 East African History

HIST 355 East Asia: 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

Psychology and Sociology Department

SOC 293 East African Cultures

INCL/PSY/SOC 329 Australia and New Zealand Culture through Film

SOC 330	Culture and Family
SOC 338	Religion, Faith and Society
SOC 361	Race, Gender and Environment
Social Science Methodology	
SOC 307 and SOC 308 <i>or</i>	
SOC 309	Statistics

Optional French Concentration - 16 hours

This concentration allows the student to progress in their fluency of French. The Intercultural Studies Department recognizes that the work we prepare students for must be done in the language of the people we serve. French is particularly pertinent to development work in Francophone Africa.

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.

Optional International Development Concentration – 5 Courses (19-20 hours)

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	Development Communication and Grant Writing	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 (16 hours)

Since 2004, Houghton College has moved into the front-line position among Christian colleges in training students in an Islamic concentration. In addition to introductory Arabic, students can take courses, spanning Islam's sacred texts, engaging the Muslim world, Globalization and Islamization, Folk Islam, Islam in North America, and the history of Islam. Courses are offered by Missionary scholars in residence or similar courses can be taken through study abroad options when available. Arabic is to be taken as the Conversational Language requirement for the INCL Major.

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/MISS 442	Globalization & Islamization	4

One optional course from list below.....4

Optional Linguistics Concentration – 20 hours

Linguistics courses are useful to anyone expecting to learn or work with languages. The linguistics concentration seeks to train students to become global scholar-servants, offering opportunities for global scholarship and service in language development, documentation of “endangered” languages, literacy and service in Bible translation. The program along with the INCL Core prepares the student to work in the multicultural settings where these opportunities abound. Students become familiar with both the sound systems and grammatical structures of language to prepare them for comprehensive language analysis and documentation.

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 4

INCL 236	Literacy, Culture, and Development
LING 312	Sociolinguistics
LING 350	First and Second Language Acquisition
LING 351	Linguistics for TESOL

Optional Missions Concentration - 5 courses for 19-20 hours**Required Courses:**

MISS 241	History of the Global Christian Movement.....	4
MISS 242	The Contemporary Church in Missionss.....	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

Optional Spanish Concentration - 16 hours

This concentration allows the student to progress in their fluency in Spanish. The Intercultural Studies Department recognizes that the work we prepare students for must be done in the language of the people we serve. Spanish is vital for service within all of the Americas.

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:8

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

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 TESOL concentration 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 350	First and Second Language Acquisition	4
LING 351	Linguistics for TESOL	4
LING 371	TESOL Methods: ELA.....	2
LING 373	TESOL Field Experience	2

Optional Urban Studies Concentration – 19-20 hours

The coursework exposes students to diverse theoretical perspectives, engages them in analyzing real-world problems, and 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. The program is holist 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.

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 course from the following:

POLS 375	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 (12-16 hours)

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
Liberal Arts.

(1-4, WSP)

ANTH 291, 391, 491 Independent Studies
Liberal Arts.

(1-4, WSP)

ANTH/COMM 225 Intercultural Communication

(4, WSP)

Explores theory and practice of communicating interculturally. Recommended for those with an interest in international vocations, or in working with ethnic or cultural groups within the United States. Liberal Arts.

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, WSP)

Topics offered according to interest and demand. Liberal Arts.

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. Liberal Arts.

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. Liberal Arts.

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. Liberal Arts.

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. Liberal Arts.

INCL/ART 238 Art and Music in Australia and New Zealand (4, F13)
Art, architecture, and music in context in Australia and New Zealand. Examines the interaction of Western and indigenous cultural styles and the influence of local and national conditions on the arts. Readings, journal-keeping, and questions pertaining to site-specific works are required. Culture: Music or Art. Liberal Arts.

INCL/ANTH/SOC 243 Cultural Anthropology (4, F)
Cultural and social aspects of human behavior; comparison of cultures. Community: Anthropology. Liberal Arts.

INCL 301 Engaging Australian and New Zealand Culture (4, F13)
Reading history, literature, and cultural analysis of the various cultures of Australia and New Zealand will combine with relating to locales and people through study, discussion, and the service projects. Incorporates travel, homestays, and the involvement in local cultural activities. Liberal Arts.

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. Liberal Arts.

INCL 311 Intercultural Experience (0-4, F&S, M, Summer)
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. Liberal Arts.

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.) Liberal Arts.

INCL/MISS 322 History of Islamic Theology and Movements (4, S13)
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. Liberal Arts.

INCL/MIN/MISS/PSY/SOC/URMN 328 Community and Society in Australia and New Zealand (4, F13)
Examines social institutions in urban Australia and New Zealand. Analyzes social problems and institutional and community responses by churches and faith-based organizations and compares them with those of governments, non-government organizations and prosocial community organizations. Community: Psychology or Sociology. Liberal Arts.

INCL/PSY/SOC 329 Australia and New Zealand Culture through Film (4, F13)
Since creating the first feature-length film in the world, Australian film-makers have examined themselves, their culture, their environment, and their interactions with the rest of the world in varied and distinctive ways, often with a gloss of revealing humor. Through the films studied in this class, students will be introduced to the diversity of Australia and New Zealand culture, from pre-historical aboriginal and Maori to post-modern. Community: Psychology or Sociology. Liberal Arts.

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. Liberal Arts.

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, F12)
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. Liberal Arts.

INCL 345 Peacebuilding: Genocide and Religious Diversity (3, F&S)
(See Off-Campus Programs – Go ED for course description.)

INCL/POLS 346 Governance and Development (4, F13)
A study of patterns of governance and politics typical of developing countries with an emphasis in relationships between governance and development. Liberal Arts.

INCL 347 Development Communication and Grant Writing (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. Liberal Arts.

INCL 348 Foundations of Health Development (4, M)
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. Liberal Arts.

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. Liberal Arts.

INCL/MISS 360 Introduction to Islamic Foundations (4, F13)
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. Liberal Arts.

INCL/MISS 361 Engaging the Muslim World (4, 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. Liberal Arts.

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, F13)

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. Liberal Arts.

INCL/MISS 441 Islam in North America (4, M13)

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. Liberal Arts.

INCL/MISS 442 Globalization and Islamization (4, S14)

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. Liberal Arts.

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. Liberal Arts.

INCL 291, 391, 491 Independent Studies (1-4, WSP)

Liberal Arts.

INCL 195, 295, 395, 495 Special Topics (1-4, WSP)

Topics offered according to interest and demand. Liberal Arts.

INCL 496 Honors in Intercultural Studies (4, S)

Liberal Arts.

Interdisciplinary Studies (major)

Interdisciplinary Studies Major: 33 - 52 hours

This major is for students who wish to pursue a multidisciplinary program of study not already offered by the college. The major enables students to integrate two or more areas of study or pursue a topic that crosses the boundaries of multiple disciplines. Recipients of this degree will not be certified in any major field; the degree on the transcript will be Interdisciplinary Studies.

Interested students must fill out an application (available in the Academic Records Office) and create a proposal including a name for the program, course of study, rationale for the program's cohesiveness, and an explanation of how it meets the student's educational or vocational goals. Applicants may not be on academic probation.

The application must be approved by the department chairs of the selected program areas (in consultation with appropriate departmental faculty), the Director of Academic Records, the chair of the Integrative Studies Committee (in consultation with the Committee), and the Office of the Academic Dean. The Academic Dean's Office will report these approvals to the Academic Council for review, which will in turn report them to the faculty. Proposals will not be considered approved until this reporting is completed.

COURSE DESCRIPTIONS

INDS 482 **Senior Capstone: Interdisciplinary Studies** (1-4)

International Development (minor)

Department of Intercultural Studies: Marcus W. Dean, chair and Associate Dean

Faculty: Ndunge Kiiti, Paul W. Shea, Ron J. Oakerson

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 and	2
ECON 211	Principles of Macroeconomics (<i>must take both courses</i>)	2
INCL/EDUC 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	Development Communication and Grant Writing	4
INCL 348	Foundations of Health Development	4
INCL 350	Culture Change	4
INCL 442	Globalization and Islamization	3-4

COURSE DESCRIPTIONS

See Economics, Intercultural Studies and Political Science.

Islamic Studies (minor)

Department of Intercultural Studies: Marcus W. Dean, chair and Associate Dean

Faculty: Benjamin Hegeman, Don Little

Phone: 585.567.9634

Minor: (15-16 hours)

Minor (2 required courses + 2 electives)	
INCL/MISS 360	Intro to Islamics..... 4
INCL/MISS 361	Engaging the Muslim World 4
Minor Electives (2)	
INCL/MISS 322	History of Islamic Theology and Movements 4
INCL/MISS 440	Unorthodox & Folk Islam 4
INCL/MISS 441	Islam in North America 4
INCL/MISS 442	Globalization & Islamization (London Mayterm)..... 4
Approved study abroad course such as (CCCU: Middle East Studies)	
	Peoples and cultures of the Middle East 4
	Islamic Thought and Practice in the Middle East 4
	Conflict and Change in the Middle East 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

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/ARAB 101 **Arabic Language** (4, F14)

Arabic is spoken in various regional dialects throughout the Arab world. This class introduces Modern Standard Arabic (MSA), the commonly understood language used in all media and the academic and intellectual community. While MSA is not the “street language” of any particular country, it provides an excellent grounding

towards fluency in any particular dialect in the Arab world. Those who wish to go beyond this one semester introduction will be directed to an intensive Arabic program within the Arab world. Liberal Arts.

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). Liberal Arts.

LING 312 Sociolinguistics (4, F)

Focuses on language use patterns in multilingual societies: language maintenance and death; language attitudes; language planning; Pidgins and Creoles. Liberal Arts.

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. Liberal Arts.

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.) Liberal Arts.

LING 333 Grammar I (4, S)

Principles and techniques of the analysis of morphological and syntactic structures of language. Liberal Arts.

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. Liberal Arts.

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, WSP)

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. Liberal Arts.

LING 370 Understanding English Grammar (4, S)

This course focuses on a linguistics approach to the essentials of English structure, i.e., information about English words, sentences, and sounds in a way that should be comprehensible to English speakers with some linguistic background. This course will help students understand some of the basic concepts of modern linguistics. (Prerequisite: LING 220, or permission of instructor.) Liberal Arts.

LING/EDUC 371 TESOL Methods: ELA (2, F)

Examines the language, reading and writing development of English language learners. It explores assessment and instructional methods of teaching English Language Arts to speakers of languages other than English. It also explores ways of creating a classroom learning environment that encourages English language and literacy development for all learners. Prerequisites: LING 220, LING/EDUC 351 and LING 350, or permission of instructor.

LING 373 TESOL Field Experience (2, F)

Taken concurrently with TESOL Methods: ELA, this weekly practicum experience working in a non-formal

setting with adult learners of English as a second language provides students completing the Intercultural Studies TESOL Concentration or TESOL Minor an opportunity to put their learning into practice. Prerequisites: LING 220, LING/EDUC 351 and LING 350, or permission of instructor.

LING 295, 395, 495 **Special Topics** (1-4, WSP)
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. Liberal Arts.

LING 291, -2; 391, -2; 491, -2 **Independent Study** (1, 2, 3 or 4)
Liberal Arts.

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, Jill E. Jordan, Jun-Koo Park, Rebekah B. Johnson
Yates

Phone: 585.567.9280

The mathematics major comprises coursework in mathematical concepts and computation with growing attention to the centrality of mathematical reasoning and proof. The major prepares students to work both collaboratively and independently and works to develop facility with both oral and written communication of mathematics. This combination of content, reasoning, and communication skills prepares students for a wide variety of vocations, including careers in education, industry, actuarial science, finance, computer science, health professions, and linguistics. Many students pursue advanced degrees in diverse areas such as mathematics, applied mathematics, education, architecture, law, health professions, and computer science.

Major: (36 hours)

Required courses

MATH 181/182	Calculus I <i>and</i> Calculus II	8
OR		
MATH 183	Science Honors Calculus	4

(Students doing MATH 183 may complete the major with 32 hours)

MATH 210	Introduction to Proofs	2
MATH 261	Linear Algebra	4
MATH 361	Abstract Algebra I	4
MATH 325	Real Analysis I	4
MATH 482	Senior Capstone: Mathematics Seminar	4

Mathematics electives (above 210) at least 4 hours must be at 300-or 400-level

10

Co-requisites: Choose cognate course(s) to equal 4 hours from Investment management (BADM 302), Marketing research (BADM 319), Financial management (BADM 406), General Chemistry I (CHEM 151), Programming I (CSCI 211), Intro to Economics *and* Principles of Microeconomics (ECON 201, ECON 210), Intro to Economics *and* Principles of Macroeconomics (ECON 201, ECON 211), Advanced French Grammar and Composition (FREN 350), Intro to Linguistics (LING 220), Music Fundamentals Review *and* Musicianship Development: Intro to Tonality (MTH 226), Logic and Critical Thinking (PHIL 222), History and Philosophy of Science (PHIL 360), General Physics I (PHYS 151), or Advanced Spanish Grammar and Composition (SPAN 350). Students are encouraged to select additional courses from the cognate list.

It is highly recommended that teachers of math choose

MATH 281	History of Mathematics
MATH 333	Probability and Statistics I
MATH 351	Modern Geometries

Often, math majors will take more math courses than the preceding minimum requirement. This is strongly recommended 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)

COURSE DESCRIPTIONS

MATH 111 Math for the Liberal Arts (4, S)

A survey course intended to introduce students to several ideas of mathematics, their historical context, and their applications and significance in society. The course will cultivate an appreciation of the significance of mathematics and develop student's mathematical reasoning through selected topics in logic, set theory, probability, statistics, number theory, graph theory, the real number system, and problem solving. Creation: Math. Liberal Arts.

MATH 115 Introduction to Calculus (4, F)

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. Creation: Math. Liberal Arts.

MATH 131 Principles of Statistics (4, S)

This course introduces students to basic concepts and applications of probability theory and statistics. Students will learn how to collect, describe, understand, use, and interpret data in meaningful ways. Topics will include sampling procedure & bias, summary statistics, graphical displays, probability and probability distributions, statistical inference, correlation and linear regression. This course does not satisfy requirements for any major. Creation: Math. Liberal Arts.

MATH 181 Calculus I (4, F&S)

A first semester of single variable calculus including limits, continuity, and the Intermediate Value Theorem; theory and computation of differentiation of algebraic, trigonometric, and transcendental functions with base e ; applications of derivatives including optimization, curve-sketching, related rates, and the Mean Value Theorem, introduction to integration, including the fundamental theorem of calculus, computation of areas, and the technique of substitution. Creation: Math. Liberal Arts.

MATH 182 Calculus II (4, F&S)

A second semester of single variable calculus including derivatives of all transcendental functions and L'Hospital's rule; theory and techniques of integration including substitution, parts, trigonometric substitution, partial fractions, and improper integrals, applications of integrals including area, volume, arc length, and surface areas; sequences and series, including Maclaurin and Taylor series; basic calculus for parametric equations and polar coordinates. Prerequisite: MATH 181. Creation: Math. Liberal Arts.

MATH 183 Science Honors Calculus (4, F)

An accelerated study of calculus. Investigates problems of motion, curvature, area and volumes, and the infinite using the tools of limits, derivatives, integrals, and the infinite series. Reserved for first-year Science Honors students. Satisfies the same requirements as MATH 181 and MATH 182. Creation: Math. Liberal Arts.

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. Prerequisite: MATH 181. Liberal Arts.

MATH/CSCI 214 Discrete Mathematics (2, F13)

Introduction to discrete mathematical topics: equivalence relations, partial orders, functions, recurrence relations, counting, introduction to probability, graphs, and introduction to algorithm analysis. Prerequisite: MATH 210. Liberal Arts.

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- MATH 225 Multivariate Calculus** (4, S13, F13)
Space geometry, vectors, vector function, function of several variables, partial differentiation, multiple integration. Prerequisite: MATH 182. Liberal Arts.
- MATH 241 Differential Equations** (4, F12, S14)
Methods of solution and applications of principle types of differential equations. Prerequisite: MATH 182. Liberal Arts.
- MATH 261 Linear Algebra** (4, S)
Linear algebra: vector spaces, linear mappings, inner products and matrices. Prerequisite: MATH 181. Liberal Arts.
- MATH 281 History of Mathematics** (4, M14)
A contextual study of the history of mathematics and some of the classical problems. Prerequisite: MATH 182. Liberal Arts.
- MATH 325 Real Analysis I** (4, S)
This course develops a rigorous foundation for the fundamental topics covered in calculus: continuity, differentiability, integrability, and convergence based on limits and the axioms of the real number system. Prerequisites: MATH 182, MATH 210 and MATH 261. Liberal Arts.
- MATH 331 Numerical Analysis** (3, WSP)
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 182, MATH 261, CSCI 211. Liberal Arts.
- MATH 333 Probability and Statistics I** (4, F)
This course introduces students to discrete and continuous probability, including conditional probability, random variables, independence, Bayes' Theorem, expected value, variance, distributions, and the Central Limit Theorem. Using the probability covered in the first half of the semester, the course also covers some of the main topics of mathematical statistics, including statistical hypothesis testing, errors, correlation, regression equations, and analysis of variance. Co-requisites: MATH 210 and MATH 225. Liberal Arts.
- MATH 341 Mathematical Modeling** (2, S13)
A course designed to develop an appreciation for and an understanding of the mathematics of complex systems. Particular problems from the life sciences and social sciences illustrate the principles and process of mathematical modeling and motivate the development of tools and techniques employed throughout applied mathematics. Prerequisite: MATH 241. Liberal Arts.
- MATH 351 Modern Geometries** (4, F12, F14)
A survey of geometry including advanced Euclidean geometry and an introduction to non-Euclidean geometries. Prerequisite: MATH 182 and MATH 210. Liberal Arts.
- MATH 361 Abstract Algebra I** (4, F)
Groups and subgroups, rings and ideals, fields, homomorphisms, and isomorphisms. Prerequisites: MATH 210 and MATH 261. Liberal Arts.
- 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. Liberal Arts.
- MATH 425 Real Analysis II** (2, S14)
This course covers selected topics from real and functional analysis, building on the foundation from Real Analysis I. Prerequisite: MATH 325. Liberal Arts.
- MATH 433 Probability and Statistics II** (2, S13)
This course covers topics selected from parametric and non-parametric hypothesis testing, ANOVA, partial and multiple correlation methods, regression, curve fitting, and Monte Carlo simulation. Prerequisite: MATH 333. Liberal Arts.
- MATH 452 Point Set Topology** (4, WSP)
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Open and closed sets. Connected, compact, and metric topological spaces. Prerequisite: MATH 261. Liberal Arts.

MATH 461 Abstract Algebra II (2, S14)
A continuation of material from Abstract Algebra I. Topics may include advanced group theory and ring theory, Sylow theorems, modules and vector spaces, Galois theory, and finite fields. Prerequisite: Math 361. Liberal Arts.

MATH 471 Complex Analysis (4, WSP)
Complex number system, limits, differentiation and integration in the complex plane, complex series. Prerequisites: MATH 225 and MATH 325, or permission. Liberal Arts.

MATH 482 Senior Capstone: Mathematics Seminar (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. Liberal Arts.

MATH 391, -2; 491, -2 Independent Study (1, 2, 3 or 4)
Liberal Arts.

MATH 295, -6; 395, -6; 495 Special Topics in Mathematics (1, 2, 3 or 4)
Previous topics include: graph theory; knot theory; number theory; linear algebra II. Liberal Arts.

MATH 496 Honors in Mathematics (4)
Liberal Arts.

Medical Technology (see Biology)

Ministry — *See the following headings:* Christian Formation (includes Outdoor Ministries Concentration and Youth Concentration option); Missions; Religion (includes Ministerial Concentration, Missions and Intercultural Studies Concentration, Worship Studies Concentration, Church Administration Concentration, and Worship and the Arts Concentration options); 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, Don B. Little, Jonathan P. Case, Paul W. Shea
Phone: 585.567.9634

Mission preparation takes multiple paths at Houghton because 21st century missions is so diverse. The breadth of liberal arts opens knowledge and skills appropriate for today's world. Our students join the long tradition from here and partner with the expanding global church in serving Christ in today's world. Students who take the missions minor have majored (or double majored) in everything from Bible, music, and psychology to education, pre-med and more. Other minor options for missions careers include International Development, Linguistics, TESOL and Islamic Studies. Everything about Houghton – the faculty, the missions representatives, the students, the programs and general campus and community ethos point to excellent preparation for missions.

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 241	History of the Global Christian Movement..... 4 hrs
And	
MISS 242	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 each in the curriculum with permission, one of the two being 300 level or above.	

COURSE DESCRIPTIONS

MISS 241 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. Liberal Arts.

MISS 242 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. INCL 211 Intercultural Transition and Adjustment is recommended.

MISS/INCL 322 History of Islamic Theology and Movements (4, S13)
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. Liberal Arts.

MISS 325 Life in the City (3, F&S)
(See Off Campus Programs – Houghton College City Semester for description.)

MISS/INCL/MIN/PSY/SOC/URMN 328 Community and Society in Australia and New Zealand (4, F13)
Examines social institutions in urban Australia and New Zealand. Analyzes social problems and institutional and community responses by churches and faith-based organizations, and compares them with those of governments, non-government organizations and prosocial community organizations. Community: Psychology or Sociology. Liberal Arts.

MISS 341 Biblical and Theological Foundations of Missions (4, F13)
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. Liberal Arts.

MISS/INCL 342 Contextualization in Missions (4, F12)
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. Liberal Arts.

MISS/INCL 360 Introduction to Islamic Foundations (4, F13)
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. Liberal Arts.

MISS/INCL 361 Engaging the Muslim World (4, 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 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. Liberal Arts.

MISS/INCL 440 Unorthodox and Folk Islam (4, F13)
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. Liberal Arts.

MISS/INCL 441 Islam in North America (4, M13)
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. Liberal Arts.

MISS/INCL 442 Globalization and Islamization (4, S14)
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. Liberal Arts.

MISS 395 Special Topics in Missions (1-4, WSP)
Topics offered according to interest and demand.

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

Music (undergraduate majors and minors)*

The Greatbatch School of Music: director and Associate Dean

Faculty: Brian Casey, Judy A. Congdon, David Davies, Paul T. DeBoer, Robert J. Galloway, Kelley Hijleh, Mark D. Hijleh, Brandon P. Johnson, Sharon D. Johnson, William J. Newbrough, Cory J. Renbarger, Gary M. Stith

Part-time & Adjunct: Anne Brown, Amanda Young Cox, Ken Crane, Marcia Giambrone, Patricia Gingras, Virginia Halberg, Margaret Kuhl, Ernie Lascell, Ji Won Lee, Donna Lorenzo, Anton Machleder, Chisato Marling, Angela McBrearty, B. Jean Reigles, Brett Shurtliffe, 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.**

E-mail: 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 226, 227, 228, 325, 326, 327, 367	Theory	16
Electives in Music (211 or above).....		6
Total:	.....	38-40

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). 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. A modified list of IS requirements for students pursuing the BMus degree can be found at Academic Records Office/Academic Information webpage.

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	6-18
	(Required piano: min. 4 hours at or above PIAN 201)	
PERF 485	Senior Capstone: Senior Recital	0
MUS 229	Basic Conducting.....	2
MUS 329	Choral Conducting or	
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, 328	Aural Skills.....	5
MTH 227, 325-7, 367	Theory.....	11
	Advanced coursework, as follows:.....	6
	At least one of MTH 458 Sixteenth Century Counterpoint (3) or MTH 463 Form and Analysis (3) or	
	MTH courses numbered 500 and above, with permission.	
	If only one MTH prefix is chosen, the second advanced course may be MHS 490,	
	Topics in Music History	
	Total:	64-78

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, 328	Aural Skills	5
MTH 227, 325-7, 367	Theory	11
	Music Electives	6-13
	Music Capstone	0-3
	Music Total needs to equal	58
	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 PK-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),
- 8. Complete all of the required contact hours, and
- 9. 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 (piano concentration only)	(1)
MCHU 476	Service Playing, Organ (organ concentration only)	(2)
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, 328	Aural Skills	5
MTH 227, 325-7, 367	Music Theory	11
Total:		60-61
Professional Education:		Hours
EDUC 202	Topics in Professionalism	0
EDUC 219	Educational Psychology	4
EDUC 217	Education and American Culture <i>or</i>	
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 (piano concentration only)	(1)
MCHU 476	Service Playing, Organ (Organ concentration only)	(2)
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 Dictionn	2
MUS 250	Music in Christian Perspective	2
MUS 356	Vocal Pedagogy (Voice concentration only)	(2)
MTH 226, 228, 326, 328	Aural Skills	5
MTH 227, 325-7, 367	Music Theory	11
Total:		60-67

Professional Education:		Hours
EDUC 202	Topics in Professionalism	0
EDUC 219	Educational Psychology	4
EDUC 217	Education and American Culture or	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 240	Percussion Techniques (1) or	
MED 227	String Techniques (2)	1-2
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, 328	Aural Skills	5
MTH 227, 325-7, 367	Theory	11
Advanced coursework, as follows:		6
At least one of MTH 458 Sixteenth Century Counterpoint (3) or MTH 463 Form and Analysis (3) or		
MTH courses numbered 500 and above, with permission.		
If only one MTH prefix is chosen, the second advanced course may be MHS 490, Topics in Music		
History.		
Total:		79-82

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, organ	2
MUS 229	Basic Conducting	2
MUS —	Ensembles (with or without credit -- 8 semesters)	0
MHS 231-334	Music History and Literature I-IV	10
MLT 470	Organ Literature	2
MUS 250	Music in Christian Perspective	2
MUS 470	Organ Pedagogy	2
MED 330	Keyboard Skills	2
MTH 226, 228, 326, 328	Aural Skills	5
MTH 227, 325-7, 367	Theory	11
Advanced coursework, as follows:		6
At least one of MTH 458 Sixteenth Century Counterpoint (3) or MTH 463 Form and Analysis (3) or		
MTH courses numbered 500 and above, with permission.		
If only one MTH prefix is chosen, the second advanced course may be MHS 490, Topics in Music		
History		
Total:		79

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, 328	Aural Skills.....	5
MTH 227, 325-7, 367	Theory.....	11
Advanced coursework, as follows:		6
At least one of MTH 458 Sixteenth Century Counterpoint (3) or MTH 463 Form and Analysis (3) or MTH courses numbered 500 and above, with permission.		
If only one MTH prefix is chosen, the second advanced course may be MHS 490, Topics in Music History.		
Total:		79

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, 328	Aural Skills.....	5
MTH 227, 325-7, 367	Theory.....	11
Advanced coursework, as follows:		6
At least one of MTH 458 Sixteenth Century Counterpoint (3) or MTH 463 Form and Analysis (3) or MTH courses numbered 500 and above, with permission.		
If only one MTH prefix is chosen, the second advanced course may be MHS 490, Topics in Music History.		
Total:		78-81

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.

INST 401, 402 (1-6, F&S)
Advanced private study for BMus. majors. Prerequisite: INST 302 and successful Sophomore Review.

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.

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**

Keyboard

HPSC 101-102, 201-202, 301-302, 401-402 **Harpsichord**

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**

Woodwinds

FLUT 101-102, 201-202, 301-302, 401-402 **Flute**

ORGN 101-102, 201-202, 301-302, 401-402 **Organ**
101-102, 201-202, 301-302, 401-402 **Piano**

Voice

VOIC 101-102, 201-202, 301-302, 401-402 **Voice**

Special Studies

SPEC 101-102, 201-202, 301-302, 401-402 **Specialized Study**

OBOE 101-102, 201-202, 301-302, 401-402 **Oboe**PIAN
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**

PERF 385 **Junior Recital**

PERF 485 **Senior Capstone: Senior Recital**

(0, F&S)

Church Music

MCHU 311 **Historical Congregational Song**

(2, F13)

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. Liberal Arts.

MCHU 312 **Recent Congregational Song**

(2, F13)

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. Liberal Arts.

MCHU 451 **Music and Worship**

(4, WSP)

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. Liberal Arts.

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 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. Required of organ majors and organ concentration within music education curricula.

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 310-314), Women's Choir (MUS 315-319), Symphonic Winds (MUS 336-340), Philharmonia (Orchestra) (MUS 331-335), and College Choir (MUS 320-324). 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 310-314, MUS 315-319, MUS 336-340, MUS 331-335, MUS 320-324, as assigned) is required of music majors (BMUS and BA) during each semester of residence. All Bachelor of Music majors must also participate in at least one semester of chamber music, small or minor ensemble, or collaborative performance/accompanying (keyboard principal) during their program of study. See the Online Music Student Handbook (<http://campus.houghton.edu/orgs/music/undergraduate/handbook/policies.html>) for applicable policy discussion.

Major ensembles (§ course available for 2 credits in any semester wherein ensemble tours.)

Audition required. By permission of the director.

MUS 310-314 Men's Choir	(0/1, F&S)
MUS 315-319 Women's Choir	(0/1, F&S)
MUS 336-340 Symphonic Winds (Touring) §	(0/1, F) (0/1/2, S)
MUS 331-335 Philharmonia (Orchestra) (Touring)	(0/1, F&S)
MUS 320-24 College Choir (Touring) §	(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.

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 sonatas.

MKBD V Practical Keyboard V (1, F&S)

All major/minor scales and arpeggios, hands together, three rhythms. Progressions, harmonization; by-ear work using secondary chords and dominants in expanded patterns. Grade 3 sight reading; four-part transposition. Repertoire: easier Bach inventions, allegro sonatina movement.

MKBD VI Practical Keyboard VI (1, F&S)

All scales and arpeggios, four rhythms. Harmonization and by-ear work with advanced chords and accompaniments. Hymns and patriotic songs in pianist styles with transposition. Choral (including open vocal score) and art song accompaniment. Grade 4 sight reading. Repertoire such as Bach inventions and easy classic sonatas.

Group Instruction: Voice Class

MCLV I Class Voice I (1, F&S)

Study of posture, breath control, tone production, and diction. Textbook used. Includes both group and individual singing of simple vocalises and songs in English. Hearing required. Six hours practice.

MCLV II Class Voice II (1, F&S)

Continued study of basic vocal techniques. Emphasis on individual singing of vocalizes and songs in English. Introduction to Italian diction. Hearing required. Six hours practice.

Music Education

MED 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&S)

Basic techniques of playing flute, oboe, clarinet, saxophone, and bassoon; acoustical, historical, and practical understanding of these instruments. Two hours class, two hours practice per week.

MED 215 Stringed Instruments (1, F&S)

Basic techniques of playing violin, viola, 'cello, and double bass; acoustical, historical, and practical understanding of these instruments. Two hours class, two hours practice per week.

MED 217 Brass Instruments (1, S)
Class instruction in various brass instruments to acquaint music education majors with basic problems and teaching techniques of the brasses. Includes study on at least three brass instruments. Two hours class, two hours individual practice per week.

MED 218 Percussion Instruments (1, S)
Snare drum, timpani basics, bass drum, mallet instruments, cymbals, smaller instruments of the battery; prepares music education majors to teach percussion instruments in public schools. Concentration on snare drum: coordination of hands; counting and playing rhythm. Two hours class, two hours individual practice per week.

MED 227 String Techniques (2, S)
Preparation for teaching violin, viola, 'cello, and double bass through the high school level. Development of playing and demonstration abilities. Survey of methods and materials. Two hours class, three hours practice. Prerequisite: MED 215.

MED 240 Percussion Techniques (1, S)
Preparation for teaching percussion instruments through high school level. Development of playing skills on timpani, mallet instruments, drums. Survey of percussion ensemble music and other materials. One class per week, three hours practice. Prerequisite: MED 218.

MED 241 Brass Techniques (2, F)
Preparation for teaching brass instruments through the high school level. Development of playing and demonstration abilities. Survey of methods and materials. Two hours class, three hours practice. Prerequisite: MED 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 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, six-to-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, WSP)
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. Liberal Arts.

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. Liberal Arts.

MHS 232 Music History and Literature II (2, S)
Continues MHS 231, from late Renaissance through Baroque (1750). With MHS 231 satisfies Culture: Music. Liberal Arts.

MHS 254 Music of World Cultures (3, WSP)
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. Liberal Arts.

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. Liberal Arts.

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. Liberal Arts.

MHS 490 Topics in Music History (3, F/S)
Historical and analytical study of works from the topic chosen for each semester's offering. Topics may include focused period surveys, specific composer studies, national or regional musics, specific major works, genre surveys, etc. Liberal Arts.

MLT 113 Masterworks of Sight and Sound (3, WSP)
Introduction of art and music from classic age to present; concert and gallery attendance included. Liberal Arts.

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. Liberal Arts.

MLT 450, 451, 452, 453 Brass, Woodwind, String and Percussion Literature (2, WSP)
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. Liberal Arts.

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. Liberal Arts.

MLT 470 Organ Literature (2, WSP)
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. Liberal Arts.

MLT 480 Piano Literature (2, WSP)
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. Liberal Arts.

Music Pedagogy and Specialized Courses

MUS 180 Practicum in Sound and Recording (0, 1 F/S)
Hands-on training and operational experience in principles and practices of live sound and recording events for Houghton College, Greatbatch School of Music. Emphasis on proper procedures and best practices in real-world work environment. Co-requisite: employment as student worker for Live Sound and Recording Services. Can be repeated; must be taken for credit in first semester. By permission of instructor.

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. This course has a fee. 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. This course has a fee. 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. Liberal Arts.

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, S13)
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, WSP)
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, WSP)

MUS 495 Internship (3-6, WSP)

Music Theory

MTH 225 Music Fundamentals Review Suspended 2012F (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. Liberal Arts.

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. Liberal Arts.

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. Liberal Arts.

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. Liberal Arts.

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. Liberal Arts.

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. Liberal Arts.

MTH 327 The World of Contemporary Music (3, S)
Western music of the twentieth and twenty-first centuries along with relevant materials from selected world music traditions. Development of analytical, compositional and arranging skills using these materials. Continued development of software skills. Prerequisite: MTH 325. Co-requisite: MTH 328. Liberal Arts.

MTH 328 Musicianship Development: The World of Contemporary Music (1, S)
Development of sight-singing, aural, and improvisational skills involving the music of the twentieth and twenty-first centuries along with relevant materials from selected world music traditions. Two class hours per week plus independent computer- and tutor-assisted instruction. Continued development of software skills. Co-requisite: MTH 327 or permission of instructor.

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. Liberal Arts.

MTH 458 Sixteenth Century Counterpoint (3, WSP)
A study of the principles of counterpoint in western music with an emphasis on models from 16th century vo-cal polyphony. Analysis of repertoire, original compositions. Prerequisite: MTH 326 or permission. Liberal Arts.

MTH 463 Form and Analysis (3, WSP)
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. Liberal Arts.

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

Phone: 585.567.9460

Major: (32 hours)		
History of Philosophy	.....	12
At least three selected from 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
PHIL 222	Logic & Critical Thinking	4
Philosophy Electives (eight hours must be at the 400-level)	.....	14
PHIL 495	Senior Capstone: Philosophy Colloquium.....	2
Total:	.....	32

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 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.

Integrative Philosophy Major: (24 hours in philosophy combined with 16 hours in allied field)		
Philosophy requirements:		
History of Philosophy	.....	8
At least two selected from 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
Philosophy Electives	.....	14
PHIL 495	Senior Capstone: Philosophy Colloquium	2
Total:	.....	24

Allied Discipline requirements: 16 hours in allied field. Pre-approved fields are: Business Administration, Communication, Biblical Studies, Theology, Art, politics, Psychology, Literature, Writing, and Science (Pre-Med emphasis). Check with any philosophy faculty on specific requirements (if any) for each area. Other allied fields are possible, with approval from the department chair.

Double major in philosophy and another discipline: (24 hours)

Philosophy requirements:

History of Philosophy	8
At least two selected from 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
Philosophy Electives	14
PHIL 495 Senior Capstone: Philosophy Colloquium	2
Total:	24

Minor: The minor consists of 12 hours of course work in philosophy 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. Liberal Arts.

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. Others by permission. Culture: Philosophy. Liberal Arts.

PHIL 222 **Logic and Critical Thinking** (4, S13)

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. Liberal Arts.

PHIL 230 **Philosophy in Film** (3 or 4, M)

Introduction through texts and film to philosophical reflection on foundational questions in metaphysics (the nature of reality), morality, and epistemology (the nature of knowledge, or the link between the mind and realities outside the mind, otherwise known as "the external world"). This course introduces philosophical reflection through a close examination of several films that illustrate the challenges of issues such as skepticism and relativism, the nature of personal identity, the possibility of moral responsibility, the problem of evil, and the meaning of life. Culture: Philosophy. Liberal Arts.

PHIL 243 **Ancient Philosophy** (4, F13)

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. Liberal Arts.

PHIL 244 **Medieval Philosophy** (4, S14)

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. Liberal Arts.

PHIL 245 **Early Modern Philosophy** (4, F12)

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. Liberal Arts.

- PHIL 246 Late Modern and Contemporary Philosophy** (4, S13)
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. Liberal Arts.
- PHIL 250 Aesthetics** (2, S13)
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. Liberal Arts.
- PHIL/POLS 260 Introduction to Political Thought** (4, F12)
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. Liberal Arts.
- PHIL/THEL 300 Christianity, Postmodernism, and Beyond** (4, F13)
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. Liberal Arts.
- PHIL/HUM 306 Varieties of Postmodernism** (3, M WSP)
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. Liberal Arts.
- PHIL/POLS 322 Philosophy of Law** (2, S13)
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. Liberal Arts.
- PHIL 330 Medical Ethics** (2, F14)
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). Liberal Arts.
- PHIL/THEL 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). Liberal Arts.
- PHIL/THEL 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. Liberal Arts.
- PHIL 360 History and Philosophy of Science** (4, WSP)
Survey of the rise of western science from its origins in antiquity to the present, addressing both the content and methods of science in each major period. Major figures considered include Aristotle, Galen, Copernicus, Kepler, Galileo, Descartes, Boyle, Newton, Lavoisier, Darwin, and Einstein. A wide range of science fields will be surveyed and specific attention is given throughout to the interrelationships between science and other disciplines, the relationship between science and culture, and the interaction of science and religion. Liberal Arts.
- PHIL 414 Major Figures** (2 or 4, WSP)
In-depth study of the thought of one or more figures with an emphasis on critical analysis and evaluation of primary source material. Liberal Arts.
- PHIL 435 Ethical Theory** (4, F13)
Analysis of traditional normative theories (formalism, consequentialism, and virtue ethics) through the read-

ing of primary sources. Also explores developments in contemporary moral theory. Liberal Arts.

PHIL 445 Religious Epistemology (4, S13)
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. Liberal Arts.

PHIL/THEL 455 Aquinas (4, F13)
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. Liberal Arts.

PHIL 465 Nietzsche (2 or 4, S13)
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.) Liberal Arts.

PHIL/THEL 475 Kierkegaard: A Man for All Disciplines (4, S14)
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. Liberal Arts.

PHIL/THEL 485 Issues in Philosophical Theology (4, S14)
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. Liberal Arts.

PHIL 290, 390, 490 Special Topics (2 or 4, WSP)
Examination of specific movements or particular problems in philosophy, or themes in the history of ideas. Liberal Arts.

PHIL 191, 291, 391, 491 Independent Study (2 or 4, WSP)
Liberal Arts.

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. Liberal Arts.

PHIL 496 Honors in Philosophy (4, S)
Liberal Arts.

Physical Education (majors and minors)

Department of Physical and Health Education: Trini G. Rangel, chair. Cathy E. Freytag, Associate Dean

Faculty: Sandra D. Johnson, Thomas R. Kettelkamp, David B. Lewis, Christopher Nafziger, Trini G. Rangel

Phone: 585.567.9645

Majors: Physical Education (teaching PK-12: 36.5 hours in the major; 11.5 hours in activities; 29 hours in education; 4 hours in pre/co-requisites).

Physical-Health Education (dual certification PK-12: 65-68 hours in major; 24 hours in education).

Physical Education (non-certification: 26-38 hours in the major).

Physical Education majors meet Health and Wellness: Point 1 by taking PHED 237 and 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,
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,
5. Complete all state-mandated training sessions required for certification (completed in EDUC 202),
6. Complete all of the required contact hours, and
7. 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
PHED 220	Adventure Sports.....	3 or 4
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 <i>or</i>	
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
<i>The Physical Education Teaching major satisfies the Health and Wellness competencies with the following courses:</i>		
<i>Point 1 – PHED 237 Holistic Health</i>		
<i>Point 2 – PHED 330 Physiology of Exercise</i>		
<i>Point 3 – PHED 229 Educational Gymnastics and Movement Foundations</i>		
<i>Point 4 – PHED 123 Canoeing or PHED 124 Cross Country Skiing or PHED 125 Downhill Skiing</i>		

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 306	Principles of Coaching and Sport Management	4
PHED 229	Educational Gymnastics and Movement Foundations	2
PHED 254	Teaching Net/Wall/Target Sports <i>or</i>	
PHED 255	Teaching Team Passing/Striking/Fielding Sports	2
PHED 230	Aquatics	2
PHED 320	Measurement and Evaluation in Physical Education	4
PHED 330	Physiology of Exercise	4
PHED 341	Kinesiology	4
PHED 225	Teaching Elementary Physical Education	2
PHED 302	Teaching Secondary Physical Education	2
<i>Choose one of the following:</i>		1-4
PHED 256	Cooperative Games	
REC 103	Initiatives (<i>meets Health & Wellness: Point 4</i>)	
REC 109	Highlander Adventure (<i>meets Health & Wellness: Points 3 & 4</i>)	
REC 227	Outdoor Leadership Training (<i>meets Health & Wellness: Point 4</i>)	
REC 240	Administration of Organized Camps	
REC 301	Methods & Materials: Camps and Outdoor Education	
<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
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 Ed./Health K-6	6
PHED 408	Student Teaching in Secondary Physical Ed./Health 7-12	6
PHED 412	Issues Seminar in Physical Education/Health	2
	Total	24

The Physical-Health Education Dual Certification 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 – REC 103 Initiatives

Physical Education Non-Certification Option

The physical education non-teaching major requires 36-38 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	2

Special Populations Course (Inclusive Physical Education;

Educating Exceptional Learners)	2-4
PHED 415 Senior Capstone for Non-Certification: Issues Seminar	2
Total.....	36-38

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
PHED 237 Holistic Health	4

Plus 8 hours from courses numbered above 200*

(* 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; however, it does not lead to certification in athletic training.

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	ST: 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 on 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, WSP)
For those who have a physical disability or are limited by lack of basic training. Prerequisite: PHED 101. Health and Wellness: Point 2, 3, or 4 as needed.

PHED 121 Badminton (0-.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 (0-.5, WSP)
Physical coordination and conditioning; basic skills; appreciation for physical activity and lifetime fitness in Christian life. Health and Wellness: Point 3.

PHED 123 Canoeing (0-.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 (0-.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 (0-.5, S)
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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- PHED 126 Golf** (0-.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** (0-.5, WSP)
Physical coordination and conditioning; basic skills; appreciation for physical activity and lifetime fitness in Christian life. Health and Wellness: Point 3.
- PHED 130 Racquetball** (0-.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** (0-.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** (0-.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** (0-.5, F&S)
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** (0-.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** (0-.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** (0-.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** (0-.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 141 Walking for Wellness** (0-.5 or 1, S)
Physical coordination and conditioning; basic skills; appreciation for physical activity and lifetime fitness in Christian Life. **For Off Campus Program students.** Health and Wellness: Point 4.
- PHED 145 Continuing Ballet** (0-1, WSP)
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** (0-.5, WSP)
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** (0-.5, F)
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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- PHED 148 Continuing Jazz Dance** (0-1, WSP)
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, S13)
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, WSP)
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, F13)
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, S13)
Students will develop an understanding of the sports culture and will learn 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 parachurch 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, F12)
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.
- 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, M13)
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 hypotheses 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. *Does not count for major or minor credit in biology.*

PHED x95 ST: Advanced Concepts of Personal Training (4, M WSP)

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, F13)

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, F12)

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, WSP)

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, WSP)

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.

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 (Activity Lab) (2, F13)

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 (Activity Lab) (2, F12)

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 (Activity Lab) (1, S14)

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, S14)

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, WSP)

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, F12)

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, F12)

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, S14)

A supervised field experience in a sports ministry setting: church, camp, mission organization or parachurch sports ministry. The student will relate theory to practice through a cooperative learning relationship between the ministry organization, student and advisor.

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. This course has a fee.

PHED 310 Organization of School Health (4, F13)

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 (2 or 4, F13)

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, WSP)

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 1 and 2. This course has a fee.

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. This course has a fee.

PHED 347 Therapeutic Modalities (2, F13)
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, S13)
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, WSP)
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. Prerequisite: PHED 281. 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.

PHED 406 Student Teaching in Physical Education/Health Education K-6 (6, F&S)
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, F&S)
Observation and teaching in elementary and secondary programs. Off-campus assignment under the direction of skilled teachers. Senior year. Student must register for PHED 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

PHED 415 Senior Capstone for Non-Certification: Issues Seminar (2, WSP)
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 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, F&S)
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.

- 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, WSP)

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

Phone: 585.567.9280

Physics Major: BS

(35 hours in major; 8-16 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 (8-16):

PHYS 151, 152	General Physics I, II	8
MATH 181, 183	Calculus I, II	8
Or		
MATH 183	Science Honors Calculus	4

Co-requisites (12):

MATH 241	Differential Equations	4
MATH 225	Multivariate Calculus	4
CHEM 151	General Chemistry I	4

Required (35) which must include:

PHYS 251	Mechanics I	4
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PHYS 352	Mechanics II	4
PHYS 212	Modern Physics	2
PHYS 275/276	Experimental Physics Lab	2
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; 8-16 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; 4-12 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 (4-12):		
PHYS 151	General Physics I	4
MATH 181, 183	Calculus I, II.....	8
or		
MATH 183	Science Honors Calculus	4
Co-requisites (8):		
MATH 241	Differential Equations	4
MATH 225	Multivariate Calculus	4
Required (25) which must include:		
PHYS 152	General Physics II	4
PHYS 251	Mechanics I	4
PHYS 212	Modern Physics	2
PHYS 275/276	Experimental Physics Lab	2
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, S13)

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 2nd Science. Liberal Arts.

PHYS 130 **How Things Work** (4, F12)

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 2nd science. Liberal Arts.

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. 2nd Science. Liberal Arts.

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 waves (I) and thermodynamics, electricity, magnetism, optics and modern physics (II). Prerequisite: MATH 181 or 183 (or evidence of adequate math preparation) for PHYS 151; PHYS 151 for PHYS 152. Lab Science or 2nd Science: PHYS 151 only. Liberal Arts.

PHYS 212 **Modern Physics** (2, F12)

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 hours/week. Prerequisite: PHYS 152. Liberal Arts.

PHYS 215 **Statics & Engineering Design** (4, S14)

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. Liberal Arts.

PHYS 251 **Mechanics I** (4, F12)

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. Liberal Arts.

PHYS 258 **Analog Electronics** (4, S13)

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. Liberal Arts.

PHYS 259 **Digital Electronics** (4, S14)

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. 3 lecture and 3 laboratory hours each week. Prerequisite: PHYS 152. Liberal Arts.

PHYS 260 **Optics** (4, WSP)

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. Liberal Arts.

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- PHYS 275, 276 Experimental Physics Laboratory** (1, 1 F12 & S13)
Selected experiments in mechanics, electricity and magnetism, and modern physics. Liberal Arts.
- PHYS 352 Mechanics II** (4, S13)
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. Liberal Arts.
- PHYS 353 Electricity and Magnetism I** (4, F13)
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 hrs/week. Prerequisite: PHYS 152; Pre/co-requisite: MATH 321. Liberal Arts.
- PHYS 354 Electricity and Magnetism II** (4, S14)
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. Liberal Arts.
- PHYS 355 Thermal Physics** (4, F13)
Analysis of laws of thermodynamic equilibria in solid, liquid, and gaseous phases; introduction to statistical mechanics in terms of the microcanonical, canonical and grand canonical ensembles. Prerequisites: PHYS 152, MATH 241. Liberal Arts.
- PHYS 356 Quantum Mechanics** (4, S13)
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. Liberal Arts.
- 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. Liberal Arts.
- 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. Liberal Arts.
- 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 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). Liberal Arts.
- PHYS 391, 392, 491, 492 Independent Study** (1, 2, 3, or 4)
Liberal Arts.
- PHYS 295, 395, 495 Special Topics in Physics** (1, 2, 3 or 4)
Introduction to areas of physics not treated in other courses. Liberal Arts.
- PHYS 496 Honors in Physics** (4, WSP)
Liberal Arts.
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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: Peter C. Meilaender, Ronald J. Oakerson

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:*	
20 hours of core requirements	
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
16 hours of political science electives*	
(Majors may fulfill up to 4 of these 16 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.

Optional Public Law and Policy concentration – 16 hours
Required:

POLS 270	Introduction to Public Policy..... 4
Electives: choose 3 courses from the list below	
POLS 225	Introduction to Environmental Governance 4
POLS/PHIL 322	Philosophy of Law 4
POLS 328	Governing Urban Communities..... 4
POLS 342	American Foreign Policy..... 4
POLS 346	Governance and Development 4
POLS 375	Immigration and Citizenship..... 4
POLS 427	Constitutional Law I 4
POLS 428	Constitutional Law II 4
POLS 429	Religion and the Constitution 4
POLS 437	International Law and Organization 4

Minor: 16 hours of POLS coursework.*
*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 205 In Search of Justice (4, F/S)
How do we do justice and avoid injustice through political activity? We explore the possibilities and pitfalls of the search for justice by considering classic theories of justice, studying citizen action and the policy process, and examining case studies of specific issues such as health care, same-sex marriage, human trafficking, or other issues of current concern. Community: Political Science. Liberal Arts.

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 geo-

graphy is examined, followed by detailed analysis of nine regions, focusing on political and economic issues and cultural diversity. Liberal Arts.

POLS 212 Social Science Research Methods

(4, S)

Basic scientific method, application to social phenomena; procedures and methodological problems in various types of social research; methods of data analysis. Liberal Arts.

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. Liberal Arts.

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. Liberal Arts.

POLS 227 Governing Rural Communities

(4, WSP)

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. Liberal Arts.

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. Liberal Arts.

POLS 240 Comparing Nations

(4, WSP)

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. Liberal Arts.

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. Liberal Arts.

POLS 270 Introduction to Public Policy

(4, WSP)

An introduction to the nature of public problems and the diverse ways in which governments respond. Includes concepts and methods of policy analysis, legal instruments of public policy, legislation and its implementation, the work of public agencies at various levels of government, and the role of the courts in the policy process. Illustrated by cases drawn from a range of policy areas, such as the environment, education, health-care, transportation, and housing. Liberal Arts.

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. Liberal Arts.

POLS 325 Executive Power and the Presidency

(4, WSP)

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. Liberal Arts.

POLS 328 Governing Urban Communities

(4, WSP)

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. Liberal Arts.

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. Liberal Arts.

POLS 336 American Foreign Policy (4, WSP)
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. Liberal Arts.

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?), 20th century trends (suburbanization, metropolitanization) and reactions to them, and ponders the future of cities in the 21st 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. Liberal Arts.

POLS 342 The European Union: Politics and Policymaking (4, WSP)
Examines the vision, structure, and functioning of the European Union, together with case studies of the policy process in various policy areas, as well as controversial issues unique to the EU. Liberal Arts.

POLS 345 Community Organization and Development (4, WSP)
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. Liberal Arts.

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. Liberal Arts.

POLS/INCL 353 War & Terrorism in the Middle East: History and Politics (4, WSP)
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. Liberal Arts.

POLS 355 East Asia: History and Politics (4, WSP)
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. Liberal Arts.

POLS 357 Russia and the USSR: History and Politics (4, WSP)
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. Liberal Arts.

POLS 362 Loyalty (4, WSP)
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. Liberal Arts.

POLS 364 The Roots of Conservatism (4, WSP)
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. Liberal Arts.

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. Liberal Arts.

POLS 368 Aristotle (4, WSP)
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. Liberal Arts.

POLS 375 Immigration and Citizenship (4, WSP)

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. Liberal Arts.

POLS 393 Field Experience (Internship) (1-4, WSP)

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. Liberal Arts.

POLS 425 Problems and Issues in American Politics (4, WSP)

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. Liberal Arts.

POLS 427 Constitutional Law I: Structures and Powers of Government (4, F)

First half of the constitutional law sequence. Focuses on government structure and powers, including judicial review, the separation of powers, and federalism. May be taken independently of Constitutional Law II. Liberal Arts.

POLS 428 Constitutional Law II: Civil Rights and Liberties (4, S)

Second half of the constitutional law sequence. Focuses on civil rights and liberties, especially issues dealing with the Bill of Rights and equal protection. Constitutional Law I is not a prerequisite. Liberal Arts.

POLS 429 Religion and the Constitution (4, WSP)

Examines constitutional debates surrounding the "first freedom", religious liberty. In the context of different theories of the proper relationship between church and state, we examine First Amendment cases involving the establishment and free exercise clauses, as well as relevant privacy issues such as abortion and euthanasia. Liberal Arts.

POLS 437 International Law and Organization (4, WSP)

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. Liberal Arts.

POLS 468, 469 America and the World I, II (4, WSP)

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. Liberal Arts.

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 communication 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. Liberal Arts.

POLS 191, 291, 391, 491 Independent Study (1, 2, 3, or 4)

Liberal Arts.

POLS 295, 395, 495 Special Topics in Political Science (4, WSP)

According to demand and interest, courses will be offered on a range of topics in any area of political science. Liberal Arts.

POLS 496 Honors in Political Science (4, S)

Liberal Arts.

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
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 (see Biology)

Pre-law

Faculty Advisors: Peter C. Meilaender, Ron J. Oakerson, W. Christopher Stewart

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) and the Law School Admissions Council (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. Students are also encouraged to join the Runnymede Society, Houghton's student Pre-Law society. Founded in 2010, the Runnymede Society sponsors a range of events devoted to helping students prepare for law school and promoting campus discussion about issues of law and public affairs.

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.

Pre-Pharmacy

with University of Buffalo PharmD program (Biology BA Major) Please see the Biology section of the catalog.

Pre-physical Therapy

(see Biology)

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.

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
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. For example, coursework in psychology will be required for the Medical College Admission Test starting in 2015.

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 307 and 308	Statistics I/II	2,2
Or PSY 309	Etatistics	3 or 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 Psychology	4
PSY 314	Child Psychopathology	2
One integrative issues course from:		
PSY 401	History and Systems of Psychology	2

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	.....	4-10
	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 or	
PSY 217	Adolescence & Emerging Adulthood	4
PSY 305	Abnormal Psychology	4
PSY 314	Child Psychopathology	2
PSY 325	Human Sexuality or	
PSY 335	Drugs and Behavior	4
PSY 402	Counseling and Psychotherapy	4
PSY 410 or 415	Practicum or 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 or	
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	Child 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

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 Clinical12

Students majoring in psychology who wish to complete two or more tracks within the major must complete a minimum of 12 distinct credits in each track. Courses beyond these distinct credits may be counted for more than one track if they meet requirements for both tracks.

Minor: A minor in psychology consists of at least four courses in psychology above PSY 111, totaling 12-16 hours. Statistics (PSY 307, 308 and 309) are 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. Liberal Arts.

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. Liberal Arts.

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. Liberal Arts.

PSY 218 Social Psychology (4, F)
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. Liberal Arts.

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. Liberal Arts.

PSY 301 Psychology of Personality (4, S)
Description, development, dynamics, determinants and assessment of the normal personality. Emphasis on contemporary theories and research. Liberal Arts.

PSY 305 Abnormal Psychology (4, F)
Etiology, dynamics, assessment, and treatment of psychopathology. Prerequisite: six hours in psychology. Liberal Arts.

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. Liberal Arts.

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- PSY 307 Statistics I** (2, F&S)
Descriptive statistics: Measures of central tendency and variability, skewness, frequency distributions, graphing, discrete and continuous probability functions, and sampling. Liberal Arts.
- PSY 308 Statistics II** (2, F&S)
Inferential statistics: Sampling distributions, estimation, hypothesis testing, t-tests, ANOVA, Chi-Squared, correlation, and regression. Prerequisite: BADM/ECON/PSY/SOC 307 or equivalent by placement test. Quantitative Literacy Competency. Does not meet Creation Requirement. Liberal Arts.
- PSY 309 Statistics** (4, F&S, 3, M)
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. Does not meet Creation Requirement. Liberal Arts.
- 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. Liberal Arts.
- 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. Liberal Arts.
- PSY 321 Adult Development and Aging** (4, WSP)
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. Liberal Arts.
- PSY 324 Life in the City** (3)
(See Off Campus Programs – Houghton College City Semester for description.)
- PSY 325 Human Sexuality** (4, S, 3, M)
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. Liberal Arts.
- PSY 326 Family Systems Theory through Film** (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. Liberal Arts.
- PSY/INCL/MIN/MISS/ SOC/URMN 328 Community and Society in Australia and New Zealand** (4, F13)
Examines social institutions in urban Australia and New Zealand. Analyzes social problems and institutional and community responses by churches and faith-based organizations, and compares them with those of governments, non-government organizations and prosocial community organizations. Community: Psychology or Sociology. Can use either 328 or 329. Liberal Arts.
- PSY/INCL/ SOC 329 Australia and New Zealand Culture through Film** (4, F13)
Since creating the first feature-length film in the world, Australian film-makers have examined themselves, their culture, their environment, and their interactions with the rest of the world in varied and distinctive ways, often with a gloss of revealing humor. Through the films studied in this class, students will be introduced to the diversity of Australia and New Zealand culture, from pre-historical aboriginal and Maori to post-modern. Community: Psychology or Sociology. Can use either 328 or 329. Liberal Arts.
- 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. Liberal Arts.
- 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. Liberal Arts.
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- PSY 336 Cognitive Psychology** (4, F12)
Critical examination of the main psychological theories and research of perception, thinking, solving problems, memory, and language with applications in learning, research, and therapy. Liberal Arts.
- PSY 337 Social Cognition** (4, S13)
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. Liberal Arts.
- 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. 3 hours lecture, 3 hours lab per week. Lab fee applies. Liberal Arts.
- 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 submission format, and present at an appropriate conference. Students may take this course up to four semesters. Requires permission of instructor. Liberal Arts.
- PSY 401 History and Systems of Psychology** (2, S13)
Antecedents and evolution of psychological systems and concepts, including the life and works of historically eminent psychologists. Prerequisite: 16 hours in psychology. Liberal Arts.
- PSY 402 Counseling and Psychotherapy** (4, S)
Introduction to major systems of psychological intervention and their rationale. Emphasis on theory rather than practice. Liberal Arts.
- 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. Liberal Arts.
- PSY 415 Internship in Psychology** (4 or 6, F&S)
A supervised experience in a psychological setting integrating theory with professional practice. Also available as part of the City Semester program. By application only through the department. Contact: Professor Richard Stegen. Liberal Arts.
- PSY 451 Learning and the Brain** (2, S13)
Analyzes theories and research of learning, including the interaction of learning and the brain. Applications in teaching, research, and therapy. Liberal Arts.
- 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. Liberal Arts.
- PSY 211, 311, 411 Special Topics in Psychology** (2, 3, or 4, WSP)
According to interest and demand, courses will be offered in Cross-cultural Psychology, Environmental Psychology, Industrial/Organizational Psychology, and other topics. Liberal Arts.
- PSY 191, -2; 291, -2; 391, -2; 491, -2 Independent Study** (1, 2, 3 or 4, WSP)
Liberal Arts.
- PSY 496 Honors in Psychology** (4, S)
Liberal Arts.

Public Health (minor)

Department of Intercultural Studies: Marcus W. Dean, chair and Associate Dean
Faculty: Robert A. Black, David A. Brubaker, Marcus W. Dean, Irmgard K. Howard, Ndunge Kiiti, Eli Knapp, Ronald J. Oakerson, Jamie Potter, Cynthia S. Symons, and others as needed

Minor in Public Health – 14 hours

The minor in Public Health is an introduction to the field of global public health, which entails programs and policies within the domestic and international context. Its purpose is to provide a Christian liberal arts perspective to understanding the domains of public health which facilitate the well-being of communities and populations in a holistic and sustainable way. The program will follow the guidelines of the “Undergraduate Public Health Learning Outcomes” published by the *Association of Schools of Public Health*. The minor has a common core for all students and is then structured from the elective courses to best complement the student’s major.

Core:	
INCL 348	Foundations of Health Development (Mayterm) 4
BIOL 232	Epidemiology (Mayterm) 2
Electives: (8 hours)	
INCL 310	Intercultural Competencies* 4
INCL 347	Development Communication and Grant Writing* 4
INCL 295	ST: Introduction to Public Health 2-4
ANTH/SOC 315	Human Ecology** 4
SOC 307 and 308 Statistics <i>or</i>	
SOC 309	Statistics 4
CHEM 187	Introduction to Nutrition** 3
<i>With</i> CHEM 188 Introduction to Nutrition Lab 1	
BIOL 2XX or higher (with advisement).....	4
(BIOL 380 Pathogenic Microbes recommended – has prerequisites)	
POLS 345	Community Organization and Development 4
*Recommended for Biology majors and other non-INCL majors	
**Recommended for INCL majors and other non-biology majors	
Other considerations:	
CHEM 187 and 188 Introduction to Nutrition be taken as an IS elective.	
COMM 101 Presentational Speaking be taken as an IS elective.	
MATH 131 Principles of Statistics be taken as the IS Math requirement when possible.	

Non-Biology majors may also choose to use the IS Creation requirement to take a Biology course.

Recreation (major and minor)

Department of Leisure Studies: Thomas R. Kettelkamp, chair. Marcus W. Dean, Associate Dean
Faculty: Andrea Boon, Sharon J. Mulligan, Thomas R. Kettelkamp, Chris Nafziger, Jaynie Nafziger, Robert B. Smalley, Jo-Anne Young
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 12 hours in co-requisites)

Co-requisites	
BIOL 215	Local Flora and Vegetation 3
REC 104	Backpacking 1
BADM 212	Principles of Management..... 4

PSY 213	Developmental Psychology	4
	Total.....	12
Core Requirements		
REC 222	Leisure, Work and Society.....	4
REC 300	Program Planning and Evaluation.....	4
REC 406	Capstone Recreation Internship.....	4-6
	Total:	12-14
Theory Requirements		
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

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, and up to four hours of equestrian courses; starting with EQST 113.

Recreation: Equestrian Option – Performance Track (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.

Co-requisites

ACCT 211	Financial Accounting	3
BADM 212	Principles of Management.....	4
EDUC 219	Educational Psychology.....	4
	Total:	11

Core Requirements

REC 222	Leisure, Work and Society.....	4
REC 300	Program Planning and Evaluation.....	4
REC 406	Capstone Recreation Internship.....	4-6

Certification in CPR and First Aid or WFR or WFA

Total: 12-14

Theory Requirements

EQST 223	Foundations of Equestrian Studies	4
EQST 224	CHA Riding Instructor Certification	3
EQST 276	Dressage.....	2
EQST 325	Jumping I	2
EQST 323	Eventing.....	2
EQST 324	Principles of Training.....	2
EQST 328	Horse Show Judging	2
EQST xxx	Horsemanship electives (from following)	4
	EQST 326 Jumping II	2
	EQST 327 Mini Prix Equitation	2
	EQST 334 Competition Dressage	2
	EQST 421 Musical Freestyle Dressage	2
	EQST 230 Basic Western Riding	2
	EQST 337 Adventure Trails	2
	EQST 240 Teaching Riding in Bolivia	2
	EQST 235 CHA-IRD	1
	EQST xxx Independent Study	2

EQST xxx Special Topics	2
Total:	21

Recreation: Equestrian Option – Management Track (31-33 hours plus 13 hours in co-requisites)

Co-requisites

ACCT 211	Financial Accounting	3
BADM 303	Entrepreneurship	2
BADM 212	Principles of Management	4
BADM 314	Human Resources Management	4
Total		13

Core Requirements

REC 222	Leisure, Work and Society	4
REC 300	Program Planning and Evaluation	4
REC 406	Capstone: Recreation Internship	4-6
WFR or Advanced WFA		
Total		12-14

Theory Requirements

EQST 223	Foundations of Equestrian Studies	4
EQST 224	CHA Riding Instructor Certification	3
EQST 276	Dressage	2
EQST 230	Basic Western Riding	2
EQST 337	Adventure Trails	2
REC 227	Outdoor Leadership Training	4
EQST xxx	Horsemanship electives (from following)	2
	EQST 325 Jumping I	2
	EQST 323 Eventing	2
	EQST 324 Principles of Training	2
	EQST 326 Jumping II	2
	EQST 327 Mini Prix Equitation	2
	EQST 334 Competition Dressage	2
	EQST 421 Musical Freestyle Dressage	2
	EQST 240 Teaching Riding in Bolivia	2
	EQST 235 CHA-IRD	1
	EQST xxx Independent Study	1-2
	EQST xxx Special Topics	1-2
Total:		19

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 during 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. Health and Wellness: Point 3 and Point 4.

REC 202 Scuba Diving in Honduras (2, M)
This course will offer PADI Open Water Diver Certification. You earn this license by completing 5 sessions in a diving pool, 5 knowledge development sessions, and by making 4 open water dives. Throughout this dive certification course, you will learn the fundamentals of scuba diving, including dive equipment and

techniques. The PADI Open Water Certification license is a permanent scuba qualification and as a certified diver you have the freedom to dive with a buddy independent of a professional. With REC 203, Health and Wellness: Points 2 and 4.

REC 203 Advanced Wilderness First Aid (2, M)

The AWFA is 24 hours long, and focuses on the basic skills of: Response and Assessment, Musculoskeletal Injuries, Environmental Emergencies, Survival Skills, Soft Tissue Injuries, Tropical Medicine and Medical Emergencies. Building on the WFA, the AWFA course goes into greater depth on the basic first aid subjects, emphasizes leadership skills, and presents new skills such as building improvised litters and litter carrying. You will receive a SOLO AWFA certification, which is good for two years. It can be used to recertify SOLO's or any other 72+-hour WFR certification. With REC 202, Health and Wellness: Points 2 and 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, WSP)

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.

REC/INTS 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, F12)

Principles and techniques used in organized camp administration; the role of camping in the development of personality. Staff and program development.

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, F13)
Outdoor education. Field experience in lesson planning; development of organized camp programs, activities, structured programs (cabin, campfire, work, etc.).

REC 311 Special Topics (WSP)
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. Prerequisite: REC 222.

REC 315 Wilderness First Responder (4, S)
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. This course has a fee.

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, WSP)
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 191, 291, 391, 491 Independent Study (1, 2, 3 or 4)

REC 496 Honors in Recreation and Leisure Studies (4)

Horsemanship (EQST) Course descriptions can be found in the equestrian studies section.

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

Phone: 585.567.9460

Major: BA (34-38 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 34-38 hours in a specified core of religion courses and 16 hours in the ministerial concentration.

Specific requirements are: (34-38 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	Hinduism and Buddhism	2
REL 225	Confucianism and Taoism	2
REL 231	Judaism	2
INCL/MISS 360	Introduction to Islamic Foundations	4
REL 222	New Religious Movements I	2
REL 232	New Religious Movements II	2

12 hours of Bible:

BIBL 221	Biblical Interpretation (required for Wesleyan ordination)	4
	Bible electives.....	8

At least 2-4 hours from the following:

THEL 210	Theology of Creation	2
THEL 315	Wesleyan Tradition (required for Wesleyan ordination)	4
MISS 222	The Contemporary Church in Missions (required for Wesleyan ordination).....	4
THEL 337	Theological Foundations of the Family	4

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 Theology.

Major with Ministerial Concentration (BA): This combines the above major in religion (34-38 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 Theology. 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
MIN 410	Ministerial Field Education	4-8

Select one of the following:

URMN 250	Evang & Social Action in the Urban Context.....	3
MIN 328	Community and Society in Australia and New Zealand.....	4

Major with Missions and Intercultural Studies Concentration (BA): This combines the above major in religion (34-38 hours) with a 16 - 20 hour missions and intercultural studies concentration.

INCL/ANTH 310	Intercultural Competencies.....	4
INCL/ANTH/SOC 243	Cultural Anthropology	4
MISS 341	Biblical and Theological Foundations of Missions.....	4
MISS 222	The Contemporary Church in Missions	4
	Cross-cultural experience	0-4

Major with Worship Studies Concentration (BA): This combines the above major in religion (34-38 hours) with a 15 hour worship studies concentration.

MCHU 311	Historical Congregational Song	2
MCHU 312	Recent Congregational Song.....	2
MCHU 451	Music and Worship	3
MIN 316	Worship in the Church.....	4
WRIT 311	Poetry, Liturgy, and Worship	4

Major with Church Administration Concentration (BA): This combines the above major in religion (34-38 hours) with a 18 hour church administration concentration.

BADM 202	Accounting and Finance for Non-financial Managers	2
BADM 212	Principles of Management.....	4
BADM 320	Leadership Development	4
COMM 216	Organizational Communication.....	4
MIN 317	Leadership in the Church.....	4

Major with Worship and the Arts Concentration (BA): This combines the above major in religion (34-38 hours) with a 16-20 hour worship and the arts concentration.

PHIL 250	Aesthetics.....	4
<i>Choose 4 of the following:</i>		
ART 131	Intro to Visual Arts.....	2
MCHU 311	Historical Congregational Song	2
MCHU 312	Recent Congregational Song	2
WRIT 311	Poetry, Liturgy, and Worship	4
ART 232	Renaissance and Baroque Art History.....	4
ART 245	Graphic Design	4

Religion Minor: (12-14 hours)

Required courses:		
PHIL 350	Reason and Religious Belief	2
Select 2 of the following:		
REL 221	Hinduism and Buddhism.....	2
REL 231	Judaism.....	2
INCL/MISS 360	Introduction to Islamic Foundations.....	4
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

World Religions Minor: (14 hours)

REL 221	Hinduism/Buddhism.....	2
REL 225	Taoism/Confucianism.....	2
REL 231	Judaism.....	2
REL 222	New Religious Movements I	2
REL 232	New Religious Movements II.....	2
INCL/MISS 360	Introduction to Islamic Foundations.....	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. Liberal Arts.

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. Liberal Arts.

MIN 210 Introduction to Christian Ministries (2, F13 & 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 parachurch 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, F12 & 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.

MIN 317 Leadership in the Church (4, S13 & 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 on 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/INCL/MISS/PSY/SOC/URMN 328 Community and Society in Australia and New Zealand (4, F)
Examines social institutions in urban Australia and New Zealand. Analyzes social problems and institutional and community responses by churches and faith-based organizations, and compares them with those of governments, non-government organizations and prosocial community organizations. Community: Psychology or Sociology. Liberal Arts.

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 Hinduism and Buddhism (2, F13)
Examines the history, major beliefs and current practice of the Indic (Hindu, Buddhist) religious traditions. Special emphasis is given to the Christian encounter with these world faiths. Liberal Arts.

REL 222 New Religious Movements I: Eastern Branches (2, F13)
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. Liberal Arts.

REL 225 Taoism and Confucianism (2, S13)
Examines the history, major beliefs and current practice of the Sinic (Taoist and Confucian) religious traditions. Special emphasis is given to the Christian encounter with these faiths. Liberal Arts.

REL 231 Judaism (2, F12)
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. Liberal Arts.

REL 232 New Religious Movements II: Western Branches (2, F12)
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. Liberal Arts.

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. Liberal Arts.

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 in urban setting.

ROTC at Houghton [Army] (minor)
Houghton faculty advisor: John F. VanWicklin
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, Aaron S. Routhe, Cynthia Symons
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 so-ciology 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 direc-tions: 1) obtain a second major in Biology, Communication, Intercultural Studies, Political Science, Psychology, Recreation, or another field; OR 2) deeply explore environment, development, and marriage and family-related issues in 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. Coursework in sociology will be required for the Medical College Admission Test beginning in 2015.

Sociological Imagination (SOC 101) is not required for upper level sociology or anthropology coursework.

Required courses:

SOC 226	Culture, Faith, and Creation.....	4
SOC 307 and 308	Statistics I/II.....	2, 2
Or 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 307, 308 and 309 Statistics.

COURSE DESCRIPTIONS

SOC 101 Sociological Imagination (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. Liberal Arts.

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. Liberal Arts.

SOC 222 Social Problems (4, F13)
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. Liberal Arts.

SOC 225 Environmental Sociology (2, 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. Liberal Arts.

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. Liberal Arts.

SOC 237 Introduction to Marriage and Family Studies (CDRP, see Foreign Languages) (4, F12)
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. Liberal Arts.

SOC/ANTH/INCL 243 Cultural Anthropology (CDRP, see Foreign Languages) (4, F)
Cultural and social aspects of human behavior; comparison of cultures. Community: Anthropology. Liberal

Arts.

- SOC 277 Crime and Society: Environmental Crime** (2, WSP)
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. Liberal Arts.
- SOC 285 Sociology of Development** (2, WSP)
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. Liberal Arts.
- 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, WSP)
Topics offered according to interest and demand. Liberal Arts.
- SOC/ANTH 296 Special Topics in Anthropology** (2 or 4, WSP)
Topics offered according to interest and demand. Liberal Arts.
- SOC 297 Special Topics in Family Studies** (2 or 4, WSP)
Topics offered according to interest and demand. Liberal Arts.
- SOC 307 Statistics I** (2, F&S)
Descriptive statistics: Measures of central tendency and variability, skewness, frequency distributions, graphing, discrete and continuous probability functions, and sampling. Liberal Arts.
- SOC 308 Statistics II** (2, F&S)
Inferential statistics: Sampling distributions, estimation, hypothesis testing, t-tests, ANOVA, Chi-Squared, correlation, and regression. Prerequisite: BADM/ECON/PSY/SOC 307 or equivalent by placement test. Quantitative Literacy Competency. Does not meet Creation Requirement. Liberal Arts.
- SOC 309 Statistics** (4, F&S, 3, M)
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. Does not meet Creation Requirement. Liberal Arts.
- SOC 312 Social Science Research Methods** (4, S)
Basic scientific method, application to social phenomena; procedures and methodological problems in various types of social research; methods of data analysis. Recommended for junior year, after completion of SOC 309. Liberal Arts.
- 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. Liberal Arts.
- SOC 322 Social Stratification** (2, WSP)
Major theories and evidence relating to the origin, nature, and social consequences of stratification systems of social inequality in contemporary United States. Liberal Arts.
- SOC 325 Life in the City** (3)
(See Off Campus Programs – Houghton College City Semester for description.)
- SOC/INCL/MIN/MISS/PSY/ URMN 328 Community and Society in Australia and New Zealand** (4, F)
Examines social institutions in urban Australia and New Zealand. Analyzes social problems and institutional and community responses by churches and faith-based organizations, and compares them with those of gov-

ernments, non-government organizations and prosocial community organizations. Community: Psychology or Sociology. Can use either 328 or 329. Liberal Arts.

SOC /PSY/INCL 329 Australia and New Zealand Culture through Film (4, F)

Since creating the first feature-length film in the world, Australian film-makers have examined themselves, their culture, their environment, and their interactions with the rest of the world in varied and distinctive ways, often with a gloss of revealing humor. Through the films studied in this class, students will be introduced to the diversity of Australia and New Zealand culture, from pre-historical aboriginal and Maori to post-modern. Community: Psychology or Sociology. Can use either 328 or 329. Liberal Arts.

SOC 330 Culture and Family (CDRP, see Foreign Languages) (4, WSP)

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. Liberal Arts.

SOC 338 Religion, Faith, and Society (2, WSP)

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). Liberal Arts.

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. Liberal Arts.

SOC 351 The Individual and Society (2, WSP)

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.) Liberal Arts.

SOC 361 Race, Gender and Environment (4, WSP)

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. Community: Sociology. Liberal Arts.

SOC 362 Gender Relations (2, WSP)

Introduction to gender relations; focus on gender roles over life cycle. Includes multicultural perspectives on gender relations. Liberal Arts.

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. Liberal Arts.

SOC 394 Internship in Family Studies (4 or 6, WSP)

An optional supervised experience in a family studies setting integrating theory with professional practice. Also available as part of the City Semester program. By application only through the department. Contact: Professor Richard Stegen. Liberal Arts.

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. Liberal Arts.

SOC 415 Internship in Sociology (4 or 6, F&S)

An optional supervised experience in a sociological setting integrating theory with professional practice. Also available as part of the City Semester program. By application only through department. Contact: Professor Richard Stegen. Liberal Arts.

SOC 480 Senior Capstone: Sociology Seminar 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. Liberal Arts.	(2, S)
SOC 191, -2; 291, -2; 391, -2; 491, -2 Independent Study Liberal Arts.	(1, 2, 3 or 4, F or S)
SOC 496 Honors in Sociology Liberal Arts.	(4, S)

Spanish (see Foreign Languages)

Sports Ministry (minor)

Department of Physical and Health Education *and* Department of Theology

Faculty: Jonathan P. Case, David B. Lewis, Paul W. Shea, Robert B. Smalley, Matthew T. Webb

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 & 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 242	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</i> 4	

*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	Cross Cultural Field Experience .....(3-4)
INCL 311	Intercultural Experience .....(0-4)

Sports Ministry minors may not choose Sports Ministry as their emphasis in a Christian Formation minor.

COURSE DESCRIPTIONS

See Christian formation, intercultural studies, missions, 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

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 351	Linguistics for TESOL	4
LING 350	First and Second Language Acquisition.....	4
LING/EDUC 371	TESOL Methods: ELA	2
LING 373	TESOL Field Experience	2
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, WSP)
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. Liberal Arts.

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. Liberal Arts.

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). Liberal Arts.

LING 350 First and Second Language Acquisition (4, S)
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. Liberal Arts.

LING 351 Linguistics for TESOL (4, S)
This course examines some of the unique challenges of English structure (phonological, morphological, syn-

tactical, semantics and pragmatics) and transfer problems that non-native speakers may have. Prerequisite: LING 220.

LING/EDUC 371 **TESOL Methods: ELA** (2, F)
Examines the language, reading, and writing development of English language learners. It explores assessment and instructional methods of teaching English Language Arts to speakers of languages other than English. It also explores ways of creating a classroom learning environment that encourages English language and literacy development for all learners. Prerequisites: LING 220, LING 351 and LING 350, or permission of instructor.

LING 373 **TESOL Field Experience** (2, F)
Taken concurrently with TESOL Methods: ELA, this weekly practicum experience working in a non-formal setting with adult learners of English as a second language provides students completing the Intercultural Studies TESOL Concentration or TESOL Minor an opportunity to put their learning into practice. Prerequisites: LING 220, LING 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
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. Liberal Arts.

THEL 210 **Theology of Creation** (2, S13)
Explores the notion of creation from a biblical and theological perspective and examines several contemporary Christian responses to the environmental crisis.

THEL 215 **Christian Apologetics** (4, S13)
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. Liberal Arts.

THEL/PHIL 300 **Christianity, Postmodernism, and Beyond** (4, F13)
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. Liberal Arts.

THEL 313 Systematic Theology (4, S)
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. Liberal Arts.

THEL/MIN 316 Worship in the Church (4, S13)
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, F13)
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. Liberal Arts.

THEL 325 American Church History (4, WSP)
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. Liberal Arts.

THEL 333 Major Figures in Theology (2 or 4, WSP)
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. Liberal Arts.

THEL 334 Studies in Theology (2 or 4, WSP)
Topics of current theological interest. Specific schools of theology, doctrines, or theological trends will be considered.

THEL 337 Theological Foundations of the Family (4, F)
Study of major conceptual designs for family. Will emphasize a comparative analysis of religious models and the relationships between these influential systems and family practices. Introduces students to the role of the family in ethical value formation. Liberal Arts.

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). Liberal Arts.

THEL 346 Elements of Catholic, Muslim and Orthodox Theology (4, F)
An examination of the development of Catholic and Orthodox theology and practices from the early Middle Ages with a particular emphasis upon major figures, and differences between the traditions. An introduction will be given to Islam with particular attention paid to Christian-Muslim interaction from the seventh century through to modern times and to syncretistic folk religion, the dervish, etc.

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. Liberal Arts.

THEL/HIST 368 The Reformation (4, WSP)
A survey of the continental, English, and Roman Catholic reformation of the 16th century. Liberal Arts.

THEL/PHIL 455 Aquinas (4, F13)
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. Liberal Arts.

THEL/PHIL 475 **Kierkegaard: A Man for All Disciplines** (4, S14)
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. Liberal Arts.

THEL/PHIL 485 **Issues in Philosophical Theology** (4, S14)
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. Liberal Arts.

THEL 495 Special Topics (1-4, WSP)
Liberal Arts.

THEL 191, -2; 291, -2; 391, -2; 491, -2 **Independent Study** (1, 2, 3 or 4 hours)
Liberal Arts.

Urban Ministry (minor)
(see also Intercultural Studies urban studies concentration)
Department of Theology: Kristina LaCelle-Peterson, chair. W. Christopher Stewart, Associate Dean
Faculty: Richard K. Eckley, Paul W. Shea, J. Michael Walters
Phone: 585.567.9460

Minor: (16-17 hours)	
CRFM 231	Foundations of Educational Ministries 2
or	
MIN 210	Intro to Christian Ministries 2
<i>And 4 of the following courses</i>	
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 328	Community and Society in Australia and New Zealand..... 4
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 in Buffalo.

URMN 300 **Urban Ministry Field Experience and Seminar** (3, WSP)
Supervised field experience in a core-city church or parachurch 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/INCL/MIN/MISS/PSY/SOC 328 **Community and Society in Australia and New Zealand** (4, F)
Examines social institutions in urban Australia and New Zealand. Analyzes social problems and institutional and community responses by churches and faith-based organizations, and compares them with those of governments, non-government organizations and prosocial community organizations. Community: Psychology or Sociology. Liberal Arts.

URMN 350 **The City in Biblical and Theological Perspective** (4, WSP)
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.

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
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:
- ENGL courses numbered 216 and above totaling 12 hours.
- WRIT courses totaling 24 hours including:
 - WRIT 214 Literary Non-Fiction
 - WRIT 401 Workshop

Minor: (16 hours) WRIT 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. Liberal Arts.

WRIT 111 **College Writing** (3, F)
Development of writing skills, particularly commensurate with advanced College curricula. Demands of audience and form taught by reading, frequent writing, peer workshops, discussion and conferences. Taught at participating high schools to their selected, qualified students. Competency: Writing. Liberal Arts.

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. Liberal Arts.

WRIT 215 Life Narratives	(4, S12)
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. Liberal Arts.	
WRIT 301 Fiction	(4, F)
Techniques of the traditional short story. Liberal Arts.	
WRIT 302 Poetry	(4, S)
Techniques of open and closed verse. Liberal Arts.	
WRIT 304 Screenwriting	(4, S14)
Techniques in writing screenplays. Emphasis on dramatic structure, cinematic rendering, story concept, and characterization. Liberal Arts.	
WRIT 307 Writing about Spiritual Experience	(4, S14)
Disciplines of the spiritual journal, writing and evangelism, the meditative essay, and devotional writing. Liberal Arts.	
WRIT 310 The Extended Narrative	(4, S13)
A multi-genre course exploring the differences and similarities of the nonfiction and fictive narrative. Prerequisite: WRIT 215 or WRIT 301. Liberal Arts.	
WRIT 311 Poetry, Liturgy, and Worship	(4, F13)
Techniques of poetry dedicated to worship in its several forms. Liberal Arts.	
WRIT 312 Creative Writing in Public Life	(4, S14)
Study and practice in the various forms of writing dedicated to social awareness and action. Prerequisite: WRIT 214 or WRIT 215. Liberal Arts.	
WRIT 320 Special Topics in Writing	(1, 2, 3, or 4, WSP)
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. Liberal Arts.	
WRIT 401 Workshop	(4, S)
Life experience, project and task-centered integrative capstone. Liberal Arts.	
WRIT 403 Internship	(4, WSP)
Opportunities for practical off-campus experience. Workshop alternative with permission of Department Chair. Liberal Arts.	
WRIT 404 Praxis	(4, WSP)
Writing Center theory and practice. Liberal Arts.	
WRIT 291, -2; 391, -2; 491, -2 Independent Study	(1, 2, 3, or 4)
Liberal Arts.	
WRIT 496 Honors in Writing	(4)
Liberal Arts.	

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 413.

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

The selection process is by invitation to qualified applicants. There are options in the program: Contemporary Contexts Honors Program 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.

Contemporary Contexts Honors Program

The Contemporary Contexts Honors Program offers students the opportunity to explore some of the roots of Western culture, coupled with a chance to respond to some of the current realities of the "river of custom" in which we all swim, including elements of the post-modern turn, the challenge of living in increasingly diverse and pluralistic settings, and the possibilities and limitations of developing global consciousness. The program is structured to meet multiple IS requirements, combining integrative study of topics and themes from a variety of disciplinary perspectives, delivered by faculty teams during the first and second years and anchored by three weeks of off-campus study during the Mayterm following the first year.

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.

Houghton Balkans Semester – Program director: Meic Pearse

The Balkans Semester is taught in four different locations (Krk, Croatia; Sarajevo, Bosnia; Skopje, Macedonia; Zagreb, Croatia), with short periods of travel in between. Instructors include both Houghton and local

professors. The program features living, studying, and traveling together in constant interaction with people from the Catholic, Muslim, and Orthodox worlds.

The Balkans has been called the powder keg of history — and it continues to have a rich and sometimes volatile mix of cultures, faiths, and languages. The in-depth study of this interaction of cultures leaves the student with a richer understanding of each of these societies and of the issues surrounding politics, art, literature, and faith that are raised by cross-cultural pressures. This program will stretch students academically and demand active curiosity and wide and constant reading — tied with solid interactions with local people (including instructors) — to come to a solid understanding of what makes this region (and, by extension, other 'problem' areas of the world) tick. Amidst spectacular scenery and dazzling art and architecture, students will come to navigate with knowledge and confidence the cross-currents of these three exciting major cultures.

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 operates both fall and spring semesters annually and will serve primarily students in their junior and senior years of study. (Course list follows.)

Houghton in London - Program director: Stephen Woolsey. (*On hold*)

Houghton in Tanzania - Program directors: Eli Knapp and 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 and 18 hours. (Course list follows.)

Houghton Down Under - Program directors: Paul D. Young *Planned for fall 2013.*

In Houghton Down Under, you will study Australian and New Zealand cultures and communities; including their art, music, film, history, and literature. Serve in the cities, hike in the bush and rainforest, swim in the South Pacific, and learn with local teachers--all amidst spectacular scenery, fantastic flora and fauna, and friendly people. In this travel semester, you will live and study in three urban centers in two countries. Pack lightly!

COURSE DESCRIPTIONS

FIRST-YEAR HONORS

INTS 153 East Meets West

(9, 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. Liberal Arts.

POLS 295H ST: East Meets West Honors Political Science

(3, F13)

Completion of the political science component of the 2012-2013 East Meets West program; reserved for students in that program. Prerequisite: INTS 153 (spring/Mayterm 2013). Community: Political Science. Liberal Arts.

INTS 161 Foundations of Contemporary Contexts Honors (1, F12)

Introduction to the topics and methods of the Contemporary Contexts honors program. Analytical and critical reading and writing, coordinated with seminar-style discussion and other group activities. Liberal Arts.

INTS 162 Contemporary Contexts Honors: Modernity and the Search for Meaning: Origins and Issues (8, S13)

Integrative exploration of Western modernity from the Reformation to the crisis at the turn of the 20th century. Investigates modern understandings of what it means to be rational, social, material, free, a self, and “modern”. Background lectures interspersed with frequent seminar-style discussions of primary texts and works of art; regular paper assignments. Liberal Arts.

INTS 163 Contemporary Contexts Honors: *Fin de siècle* Vienna and the Modern Search for Meaning (3, M13)

Course conducted in Vienna. Integrative exploration of the crisis of Western modernity in the late 19th and early 20th centuries, focused on developments in philosophy, literature, politics, and the arts in turn-of-the-century Vienna. Background lectures interspersed with frequent seminar-style discussions of primary texts and works of art and music; regular excursions to visit museums and important sites in Vienna. Liberal Arts.

INTS 164 Contemporary Contexts Honors: Modernity and Postmodernity (4, F13)

Integrative exploration of Western Modernity from World War I to the present, with special consideration of the meaning of “postmodernity”. Investigates modern and postmodern understandings of what it means to be rational, social, material, free, a self, and “postmodern”. Background lectures interspersed with frequent seminar-style discussions of primary texts and works of art; regular paper assignments. Liberal Arts.

THEL 209H Honors Introduction to Christianity (4, F12)

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. Faith Foundation: Theology. Liberal Arts.

HOUGHTON BALKANS SEMESTER

ART 348 Fine Arts of Southeastern Europe (4, F12)

Art history of Catholic southern Europe and especially of the Venetian Empire, principally painting and architecture. Comparison is made with the art and iconography of Orthodox Europe, especially of Serbia and Macedonia. Some study of Ottoman Muslim art during time in Bosnia. Culture: Art.

ENGL 345 Literatures of the Cultures of Central and Southeastern Europe (4, F12)

Introduction to and survey of the literatures of central, eastern and southeastern Europe including samples from Catholic, Orthodox, and Muslim cultures. The course will cover a selection of novels, essays, and poetry.

HIST 347 The Balkans and Eastern Europe: Early Middle Ages to Present (4, F12)

A survey of the history of Balkan and Eastern European history with special emphasis upon the interactions of Catholic, Orthodox, and Muslim cultures; ethnic and religious diversity; the fraught relationship with western Enlightenment and post-Enlightenment ideas; and mutually exclusive nationalist interpretations.

THEL 346 Elements of Catholic, Muslim and Orthodox Theology (4, F12)

An examination of the development of Catholic and Orthodox theology and practices from the early Middle Ages with a particular emphasis upon major figures, and differences between the traditions. An introduction will be given to Islam with particular attention paid to Christian-Muslim interaction from the seventh century through to modern times and to syncretistic folk religion, the dervish, etc.

HOUGHTON COLLEGE CITY SEMESTER

Core courses

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 of them. Also considers social science explanations of urban development (why cities?), 20th century trends (suburbanization, metropolitanization) and reactions to them, and ponders the future of cities in the 21st 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. Liberal Arts.

INTS 275 Engaging Urban Culture

(1, F&S)

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] Liberal Arts.

MIN/MISS/SOC /URMN 325/PSY 324 Life in the City

(3, F&S)

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. Liberal Arts.

Internship Experience

(4-6, F&S)

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 Higher Education Consortium in the General Information section of the catalog for information regarding cross registration.)

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, S)

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 2nd science. Liberal Arts.

HIST 251 East African History

(4, S)

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 elective credit. Liberal Arts.

SOC/ANTH 293 East African Cultures

(4, S)

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 elective credit. Liberal Arts.

Optional courses

ENG 390 ST: African Folk Lore

(2-4, S)

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. Liberal Arts.

INCL 311 Intercultural Experience

(0-4, S)

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. Prerequisite: INCL 310 Intercultural Competencies. Liberal Arts.

MISS 395 ST: Missions in Africa

(2-4, WSP)

The Gospel in East Africa. Exploration of the receptivity of African Christians to 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 DOWN UNDER

ART/INCL 238 Art and Music in Australia and New Zealand

(4, F13)

Art, architecture, and music in context in Australia and New Zealand. Examines the interaction of Western and indigenous cultural styles and the influence of local and national conditions on the arts. Readings, journal-keeping, and questions pertaining to site-specific works are required. Culture: Music or Art. Liberal Arts.

INCL 301 Engaging Australian and New Zealand Culture

(4, F13)

Reading history, literature, and cultural analysis of the various cultures of Australia and New Zealand will combine with relating to locales and people through study, discussion, and the service projects. Incorporates travel, homestays, and the involvement in local cultural activities. Liberal Arts.

INCL/MIN/MISS/PSY/SOC/URMN 328 Community and Society in Australia and New Zealand*

(4, F13)

Examines social institutions in urban Australia and New Zealand. Analyzes social problems and institutional and community responses by churches and faith-based organizations, and compares them with those of governments, non-government organizations and prosocial community organizations. Community: Psychology or Sociology. Liberal Arts.

INCL/PSY/SOC 329 Australia and New Zealand Culture through Film*

(4, F13)

Since creating the first feature-length film in the world, Australian film-makers have examined themselves, their culture, their environment, and their interactions with the rest of the world in varied and distinctive ways, often with a gloss of revealing humor. Through the films studied in this class, students will be introduced to the diversity of Australia and New Zealand culture, from pre-historical aboriginal and Maori to post-modern. Community: Psychology or Sociology. Liberal Arts.

*May use only one of these courses for one Community IS requirement.

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 sites 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.

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, F&S)

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. (No Integrative Studies credit.) Liberal Arts.

INCL 319 Intercultural Practicum

(3, F&S)

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 as-

signed 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. Liberal Arts.

ANTH/INCL 340 African Traditional Culture and Religion (3, F&S)

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. Liberal Arts.

INCL 345/POLS 344 Peacebuilding: Genocide and Religious Diversity (3, F&S)

Students will study the ethnic conflicts of Rwanda as a means of learning issues in the healing of trauma (both personal and social) and 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. Liberal Arts.

INCL 381 Social Context for Community Development (3, F&S)

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 Millennium 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. Liberal Arts.

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, F&S)

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. Liberal Arts.

ANTH/INCL 256 History, Religion, & Society of the Mekong Region (3, F&S)

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. Liberal Arts.

INCL/POLS 314 Exclusion and Exploitation: marginal people of the Mekong (3, F&S)

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. Liberal Arts.

INCL 319 Intercultural Practicum (3, F&S)

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. Liberal Arts.

INCL 381 Social Context for Community Development (3, F&S)

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. Liberal Arts.

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 Leadership and Vocation (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.

Professional Mentorship (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 voluntary 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 Development 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 I

(2-3)

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 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 Society: 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 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: (either Dimensions or One or Both of the other two)

Dimensions of East Asian Culture

(3)

This elective course introduces students to Chinese visual, physical, medical and culinary arts. Each component consists primarily of hands-on practice. Students will also have several lectures on the unifying Chinese philosophy that underlies these dimensions of Chinese culture.

Chinese Painting

(1)

Students will learn to paint from a Chinese artist. They will practice the basics of Chinese water-based brush-work, 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

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.

Supervised 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.

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 communicators. Both on-campus showcases and public performances are presented throughout the semester.

Business Track
Strategic Management (3)
Business Track students will assemble a successful artist roster and participate in the following activities on their artist's behalf: scheduling, creating a business plan, analyzing and forecasting trends in popular music, advising and developing the artists with regard to their live show and recordings.

Music Business Survey (3)
Through lecture, text and visiting music industry experts, Business Track students will gain a broad understanding of key aspects of the music business including: Booking, Artist Management, Touring, Road Management, Production, Marketing and Promotion, Copyright and Legal Issues, Publishing and Licensing. This course will outline economic, creative and spiritual elements critical to a career in contemporary music and guide students in assessing their own strengths, weaknesses and interests. The focus for this course is hands-on application through work with contracts, live show production and career planning.

Advanced Media Marketing (3)
Through classroom instruction and presentations by visiting industry experts, Business Track students will become familiar with traditional and progressive marketing strategies. Key areas including publicity, advertising, radio and video promotion, Internet marketing, and tour support will be addressed. Students will develop a comprehensive marketing plan for each Artist and will also create and implement the marketing plan for the CMC Tour.

Technical Track
Advanced Studio Recording (3)
This course focuses on professional audio recording and production. The concepts and practices learned in this course will be used by the students to engineer and mix three songs per student in the Artist Track. The goal is for students to leave the CMC prepared for an entry level position in any area of studio recording.

Concert Production (3)
This course focuses on sound reinforcement, stage lighting and design, stage management, and concert production management. The concepts and practices learned in this course will be used by the students to produce the weekly CMC Live show in support of the Artist Track student performances, as well as the weeklong tour of CCCU college campuses. The goal is for students to leave the CMC prepared for an entry level position in any area of concert production.

Audio Engineering (3)
This course focuses on concepts and common practices in professional audio. Instruction and practical experience will focus on sound reinforcement for concerts as well as recording studio techniques, since both disciplines employ the same concepts. The information learned in this course will be put into practice in both the Concert Production and Studio Production courses.

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.

Core Seminar: Perspectives on Latin American History, Contemporary Issues (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.

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
Responses to Third World Reality Seminar (3)
Community Immersion/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)
Community Immersion/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)
Environment Science Seminar (4)
Field Research Practicum (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.

International Business: Management and Marketing Concentration (Fall Semester only)
Business Seminar (3)
Community Immersion/Internship (3)
Students address fundamentals and application of international business. They experience the political, social, and economic realities of Latin America. Students will meet Latin American business and government

leaders, visit plantations, cooperatives, maquilas, and local businesses as well as participate in a hands-on case study/ internship project. Presentations are delivered in English and Spanish, most required readings are in English. Prerequisite: Course background should include macro-/micro-economics and introductory-level management.

Satisfactory completion of this program (grade C or better) fulfills the internship requirement for students majoring in business administration at Houghton plus students earn six business elective credits.

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 (4)
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.

Faith and Artistic Development (3)
A class that explores the connection between the eye, the heart and the hand, this course focuses on the integration of faith and learning as well as developing the necessary skills for analysis of the culture of Hollywood.

(Electives: Choose 1)
Narrative Story Telling (3)
Concentrating on the art form of narrative storytelling, the course places special emphasis on the visual aspect of the discipline. Two tracks are offered in the course, writing and production. After the core instructional period in each track, students from both tracks are reunited and will have the opportunity to hone their narrative analysis skills, participate in workshop style labs and make two short films that demonstrate their ability to utilize storytelling theory on screen.

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.

Professional Acting for the Camera (3)
An advanced workshop in the practice and process of acting for the camera aimed at students who have a desire to pursue acting as a career. Instruction includes an overview of current camera acting techniques and thorough discussion of the art of acting. Several class sessions throughout the course will be devoted to the business of acting for film and television in the Hollywood entertainment industry with an emphasis given to developing the materials and relationships necessary for a successful career.

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

(4)

This course examines many dimensions of Islamic faith-historical, legal, doctrinal, popular and behavioral—from early times to the present. While emphasis is on the early period and its influence on events and people, the course also attempts to relate these early developments to contemporary issues in the Middle East, such as the impact of colonialism, gender equality, modernization, development and democracy. Students are encouraged to begin thinking about relevant similarities and differences between themselves and Muslim peoples around the world.

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

Au Sable 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.

Chez Vous

The Chez Vous summer program is a relational language-study experience, organized into 6 different study tracks from Intermediate to Advanced language levels. Each track is about 6 weeks long and contains 2 semester-courses in French. These courses progress in close harmony with the other Houghton courses. The program offers students a fairly intense immersion into French life and language, along with multiple opportunities to connect with French people. Students also experience cultural activities, historical excursions, daily worship in French, service projects, church services, and other enriching experiences.

COURSE DESCRIPTIONS

FREN 210 French Grammar and Culture

(4, summer)

This course provides intensive work in all four language skills: speaking, listening, reading, and writing. Study includes both review and expansion of grammar and phonetics foundational to oral and written communication, along with substantial experience interacting with French culture and target-language materials.

FREN 310 French Grammar and Conversation

(4, summer)

This course continues to strengthen grammar comprehension while providing intensive work in all four language skills: speaking, listening, reading, and writing. Study also includes basic phonetics. Extensive language use is applied in substantial interactions with French national, culture and target-language materials.

FREN 312 French Conversation and Phonetics

(4, summer)

This course provides intensive practice and instruction in French conversation, listening comprehension, and phonetics, with an additional focus on expanded vocabulary. Study includes continuing work in grammar, discourse, and critical thinking skills and an orientation to informal and formal use of French. Taught in French by national professors trained in teaching French as a Second Language.

FREN 351 Advanced Stylistics and Grammar

(4, summer, 14)

This course offers intensive work in native expression and refined grammar, enhancing students' ability to communicate fluidly in high-level conversations and in extended written forms. Taught in French.

FREN 361 French Civilization and Culture

(4, summer, 13)

This course concentrates on French life since WWII. Particular attention is given to social, political and economic structures, along with trends in art, media and daily living. Taught in French.

FREN 451 Advanced Conversation Themes and Phonetics

(4, summer)

This course provides intensive practice and instruction in French conversation, particularly on the formal level and with a special focus on pronunciation and accent. Study includes continuing work in higher-level communication skills engaging abstract thoughts and concepts. Taught in French by national professors trained in teaching French as a second language.

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.

TMIS 204 Spiritual Dynamics and Power Encounters

This course will encourage the students 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.

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, contact to the Academic Records Office.

Tabular Listing of Off-Campus Programs (*data is subject to change*)
Students studying in the off-campus programs listed below may qualify to receive federal and state financial aid.

	HC Catalog Courses	Grades on Transcript	HC Fin Aid Awarded	Qualifies Mayterm
Houghton Programs				
Honors: Contemporary Contexts	Yes	Yes	Yes	Yes
First Year Honors: East Meets West Honors	Yes	Yes	Yes	Yes
Go ED (Africa and Mekong)	Yes	Yes	Yes	Yes
Houghton Down Under	Yes	Yes	Yes	Yes
Houghton: Balkans Semester	Yes	Yes	Yes	Yes
Houghton in London	Yes	Yes	Yes	Yes
Houghton in Tanzania	Yes	Yes	Yes	Yes
Council for Christian Colleges & Universities				
American Studies Program (Washington, DC)	Yes	Yes	No	No
China Studies	Yes	Yes	No	No
Contemporary Music Center	Yes	Yes	No	No
LA Film 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
Affiliated Programs				
AuSable Institute of Environmental Studies	Yes	Yes	No	No
Chez Vous	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
WNYHE Consortium	No	Yes	NA	No
Study Abroad (Transfer Credits)				
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
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
Address: 2732 Transit Road, Suite 100, West Seneca, NY 14224
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:

<i>Minimum hours</i>	
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.

For more information, write to P.A.C.E., Houghton College at West Seneca, 2732 Transit Road, West Seneca, NY 14224, call 716.674.6363 or 888.874.7223, or visit www.houghton.edu/pace.

COURSE DESCRIPTIONS

TERM I

ADC 321 **Adult Development**

(3)

Overview of adulthood in context of life span, including biological change, cognitive characteristics, personality and moral reasoning. Also addresses issues of gender, interpersonal relations, ethnicity, aging and impact of theory on organizational development.

ADC 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.

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 P.A.C.E. 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 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.

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.

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 301 Psychology of Personality (3)

Description, development, dynamics, determinants and assessment of the normal personality. Emphasis on contemporary theories and research.

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.

ADC 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 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 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 of both 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 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 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 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 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 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.

ADC 295 Special Topics (3)

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 217	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 Principles (prerequisite: ADC 218)
ADC 319	Marketing 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, 2012 to May 31, 2013):

Enrollment deposit	.....\$100
Tuition per term (12 credit hours)	..... \$7,620
Tuition for program (36 credit hours)	.....\$22,860
* OPTION courses	.....\$0 or \$585 and non-refundable registration fee of \$50
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 tuition-free OPTION courses. 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. Once a student has exceeded four Option courses, each course will cost \$585.

P.A.C.E. students have many options for payment including online with a checking account, savings account, or credit card (MasterCard, Discover, American Express); employer sponsored tuition assistance; New York State TAP; Federal PELL grants; Federal Direct Loans; VA grants; etc.

Students are billed at the beginning of each term. Payment deferment can only be arranged for special circumstances approved by Student Financial Services. Students will receive periodic statements showing account activity for the preceding period and their current balances. The statement also includes any changes for additional courses taken, experiential learning credits, etc.

To reduce students’ expenses, P.A.C.E. has purchased the texts and materials needed for each course. **Tuition covers textbook use, supplemental readings, and the computer lab.** Student syllabi and course materials are on the internet for downloading directly to personal computers. Students may purchase new textbooks for their personal libraries. Additional course materials are conveniently made available on class nights. P.A.C.E. students do not have to arrange their schedules around bookstore hours.

Students are required to have access to a computer with certain specifications for continuous use throughout the program. Contact the P.A.C.E. office for the required specifications.

Financial Aid for P.A.C.E.
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 2012-2013 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/PORTALSWebApp/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 Direct Loan. The student may be 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 P.A.C.E. 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/drop date is the date the student returns a signed withdrawal/drop form to his or her academic advisor or the student financial services advisor.

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 arts 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 co-curricular 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. An event planning committee 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 one of 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 two other housing options: a townhouse, which has seven or eight students sharing a four-bedroom townhouse with full kitchen facilities; 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.

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 11:30 a.m. - 12:10 p.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), Global Christian Fellowship (GCF), The Gospel Choir, Journey’s End Tutoring, Young Life 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.

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. An up-to-date tetanus/diphtheria immunization is also required. TB testing is recommended but is up to the discretion of the student's physician based on risk profile. 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 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 for many different reasons. Typical concerns presented in counseling are:

- "...I'm anxious and stressed a lot lately ... I think I've even had some panic attacks ...anything I can do?"
- "...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 I 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 was abused as a child ... I've never spoken to anyone about it, but the memories are coming and making it harder to concentrate on my studies."
- "... I'm getting married ...I'd like some pre-marital counseling...do you offer any?"
- "...I'm bothered by my attitude toward food and my eating habits...do I have an eating disorder?"
- "... A family member/friend from home has died ...I know I need to get over it, but I can't concentrate and don't know how."
- "...I'm having some doubts about my Christian faith.... God seems nowhere these days"

It's not uncommon to hear these sentiments from students. At the same time, however, they might not stop to consider that a counselor might be of help. One or two conversations may help you manage 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 with these concerns. The Center also has a psychiatric consultant 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 recovery from abuse, and grief. 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. Counseling services are confidential.

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 activities and events that Intercultural Student Programs coordinates for these students includes the Orientation Program, the Host Family Program, help getting a New York state driver's license, visa assistance, and other activities.

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 (CAB)

Coordinated by the Student Programs Office, this board works with groups across campus to coordinate a wide array of quality on-campus entertainment reflecting the Christian character and geographic setting of our community.

Campus Center

The Van Dyk Lounge is first and foremost for the use and enjoyment of Houghton College students, employees, and alumni. The Campus Center lower level 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 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.

Black Heritage Club - enriches the campus through providing programming to celebrate cultures represented on campus.

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 Environmental Club - works to encourage awareness and action on campus for environmental issues.

Encore - a student-run theater club open to everyone, produces several shows and theatrical events each year, including skits, one-act plays and full-length productions. Encore also strives for variety in its play selection, performing shows from many different time periods and countries.

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 oppor-

tunities for students and community members.

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 students 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.

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.

Journey's End Tutors - Houghton students are partnered with refugees that are new to the country through Journey's End Refugee Services. Volunteer students spend a few hours with refugee families for eight Saturdays each semester. They help these families, especially the children, to learn English and acclimate to the American educational system as well as some life skills.

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.

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.

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 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.

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.

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 (Wylld-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.

Residence Halls Gillette Event Planning Committee
 Lambein Event Planning Committee
 Rothenbuhler Event Planning Committee
 Shenawana Event Planning Committee
 Townhouse Leadership Council

Publications *Boulder* (Yearbook)
 Drawing Board (Student Comic Publication)
 The Lanthorn (Literary/Art publication)
 STAR (Student newspaper)

NEW STUDENT PROGRAMS

See page 47.



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 immediately upon their arrival on campus. They can then be 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
- Any other item that may be deemed as dangerous at the discretion of the Office of Safety and Security.
- Fireworks are not allowed on campus unless approved for a particular event. Students may not possess fire-works 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 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.

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.

Pedestrian Safety

The sidewalks of Houghton College are intended for pedestrians. While alternate, non-motorized forms of transportation (such as bicycles, skates, longboards, skateboards and scooters) are also permitted, the following procedures are in place for the safety of all:

- Pedestrians have the right of way on all sidewalks and paved paths. Those using bicycles, skates, longboards, skateboards or scooters should exercise caution near pedestrians, including announcing their presence when coming from behind and going slowly when coming around buildings or into other limited visibility areas.
- Cars and other motorized vehicles (aside from emergency and college-owned vehicles) are not permitted on campus sidewalks at any time.
- Houghton College will occasionally allow trick riding in limited areas such as parking lots. Trick riding is only permitted on stairs with the prior approval of the Safety & Security Office.
- Bicycles, skates, longboards, skateboards and scooters are not permitted to be used inside college buildings.

While vehicles are required by law to yield for pedestrians in crosswalks, it is important that pedestrians continue to exercise extreme caution. This is especially true on Centerville Road, at the confluence of several roads and crosswalks. The steep grade of the road, combined with limited visibility and the possibility of slippery conditions can be very dangerous.

- Riding in the dark should be done only with extreme caution. New York State law requires that bicycles have a light, not just reflectors, for use after dark.
- The road between the Fancher Building and Rothenbuhler Hall is closed to all foot traffic. This hill is extremely dangerous for pedestrians due to limited visibility for drivers and the lack of shoulders on the roadside. Pedestrians (including runners) should use the footpath adjacent to Rothenbuhler Hall.

For safety reasons running along route 19 should be done with caution. Students should run with a companion or in groups (single file for safety) and preferably with reflective clothing.

- The following campus locations are for pedestrian use only. For safety reasons, bicycles, skates, longboards, skateboards and scooters should be walked through these areas.

Arcade (tunnel) through the Center for the Arts

Walking path between Stevens Art Studios and Centerville road

Walking path from the Campus Center to Rothenbuhler (including past the Rothenbuhler bridge and the path toward the Fire hall parking lot)

STUDENT LIFE POLICIES

For a complete listing of Student Life Policies see the Student Guide at:

http://www.houghton.edu/student_life/Student%20Guide%202010-2011.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 - Constructed in 1964 and renovated in 2000, the library offers holdings of approximately 250,000 volumes and 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 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 47,000 online magazines and journals and 73,000 ebooks in electronic full text.

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 welcome desk and a large lounge, renovated in 2007. Second floor: kitchen, self-service areas, main dining room and private dining rooms. Newly renovated basement area includes campus mailroom; student government offices; Big Al's snack shop and JAVA 101 coffee shop, both with wireless access; student publications and outreach offices; recreation room; Technology Help Desk; Quick Print; and new conference rooms.

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, along with the Center for Academic Success and Advising and audio/visual services. A beautiful atrium divides the classroom and office wings. In 2011, a state-of-the-art digital media lab, the Forsyth Learning Commons, was added to support exciting new course offerings in this area.

Paine Center for Science - This 65,000-square-foot teaching and research facility, renovated in 2011, serves Houghton's biology, chemistry, mathematics/computer science and physics departments. The fully wireless facility includes airy and reconfigurable state-of-the-art teaching laboratories built for interactive hands-on learning; dedicated undergraduate research laboratories; an environmental science-greenhouse complex; student study spaces and faculty offices. Teaching and research spaces are complemented by support facilities, including department-specific stockrooms, a BSL2 cell-culture facility, temperature and humidity-conditioned modern instrumentation laboratories, a student machine shop and an animal behavioral research facility.

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 computers 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 in room 116.

ATHLETIC FACILITIES

Nielsen Physical Education Center - Occupied in December 1980, this facility houses three basketball courts, a running track, auxiliary gymnasium, four racquetball courts, weight room, fitness center, 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 - Houghton offers a wide variety of activities for curricular and extra-curricular outdoor recreation, including soccer and hockey fields; a 1,300-seat grandstand; six tennis courts; cross-country running course; downhill ski facility/lodge with three trails and tow ropes (for beginners); and a 400-meter all-weather, eight-lane outdoor track. Located in a mature hardwood forest, Houghton also maintains over seven miles of trails for cross-country skiing, hiking or running, and one of the largest and oldest ropes initiatives courses in the Northeast.

Equestrian Center -The site of the Houghton College Equestrian Program includes accommodations for boarding student-owned as well as college-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 which accommodates 335 women, with lounge, recreation facilities and a prayer chapel.

Lambein Residence Hall - A 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 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.







Trustees, Officers, Faculty

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Harry F. Woodd	Orefield, PA
Elwood Zimmerman	Potomac Falls, VA

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- Melvin Dieter, Chair Emeritus
- Robert Kaltenbaugh
- Ian Lennox, Chair Emeritus
- John Mervine

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Jeffrey Prinsell	Marietta, GA
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Cathy Reese	Kennett Square, PA
Lawrence Reynolds	San Jose, CA
James Rogan	Tell City, IN
David Tideman	Landenberg, PA
Robert Van Dyk	Ridgewood, NJ

Chief Officers of Administration

Shirley Mullen, PhD	President
Sharra Hynes, PhD	Vice President for Student Life
Linda Mills Woolsey, PhD	Interim, Dean of the College
Kent Stroman, BS, CPA, CFRE	Interim Vice President for Advancement
Dale Wright, MS	Chief Business Officer

Administrative Staff

Mark Alessi	Administrative Systems Manager
Kevin Austin	Assistant Coach - Women's Soccer & Basketball and Men's Baseball
Margery Avery	Director of Academic Records
Jeffrey Babbitt	Director of Marketing and Communications
Erin Bard	Administrative Programmer/Analyst
Susanna Brautigam	Financial Aid Counselor
David Brubaker	Dir. of Student Health Services; College Physician; Asst. Prof.
John Buteyn	Assistant Director, SFS-Student Accounts
Martin Coates	Upward Bound Curriculum Coordinator
Nancy Cole	Volleyball Coach
Ryan Cool	Technology Administrator
Rebecca Crouch	Director of Conferences
James DeFelice	P.A.C.E. Student Financial Services Advisor/Admission Rep.
Matthew Dougherty	Head Men's and Women's Cross Country and Track & Field Coach
Darby Emerson	Admission Counselor
Katie Felton	P.A.C.E. Program Coordinator
Eileen Frawley	Academic Counselor, Upward Bound
Phyllis Gaert	Director of Community Relations
Diane Galloway	Student Transitions and Advising Coordinator
Marshall Green	Public Relations Specialist
Justin Hackett	Senior Admission Counselor
Donald Haingray	Director of Technology Services
Richard Halberg	Assistant Men's and Women's Golf Coach
Deanna Hand	Head Athletic Trainer and Senior Woman Administrator
Andrew Hannan	Head Men's Basketball Coach and Director of Nielsen PEC Student Employees
Mark Hijleh	Associate Dean for Academic Affairs
Heather Hill	Development Fund Specialist
Sharleen Holmes	Library Operations Manager
Dwight Hornibrook	Director of Major Gifts
James Hutter	Associate Director of Academic Records
Gabriel Jacobsen	Director of Residence Life and Housing
Virginia Jacobsen	Human Resources Administrator
James Janiszski	P.A.C.E. Academic Advisor
Thomas Kettelkamp	Head Men's and Women's Golf Coach
Jeff Kirksey	Dean of Admission and Retention
Cindy Lastoria	Director of Operations for the President
Gina Leete	Assistant Controller

Jay Livingston	Associate Director of Technology Services
Marianne Loper	Director, Student Financial Services
H. Skip Lord	Executive Director of Athletics
Bridget Mast	P.A.C.E. Program Coordinator & Academic Records Assistant
Stephen Mattiace	Assistant Director of Residence Life & Resident Director - Shenawana Hall
Elizabeth Mayhle	Events and Graphic Designer/Traffic Coordinator
David Mercer	Controller
J. L. Miller	Resident Director - Townhouses
Daniel Moore	Instructional Support Coordinator
Alicia Mucher	Head Women's Basketball Coach and Assistant S.I.D.
Jason Mucher	Director of Compliance and Communication
Sharon Mulligan	Upward Bound Program Director
Jaynie Nafziger	Director, Wilderness Adventure
Daniel Noyes	Executive Director of Alumni Relations
Andrew Oden	Visit Office Coordinator
Helena Oden	Operations Manager, Campus Store
John Oden	Advancement Services Manager
Ray Parlett	Director, Campus Safety & Security
Brian Reitnour	Head Baseball Coach and Coordinator of Career Services
Matthew Reitnour	Director of Admission
Yvonne Ribaud	Southern Tier Program Coordinator, P.A.C.E.
Brandon Rush	Senior Creative Designer
Annette Shepherd	Assistant Softball Coach
Jeremy Shepherd	Head Softball Coach and Assistant Sports Information Director
Robert Smalley	Assistant Men's and Women's Track & Field Coach; Instructor
Charles Smith	Director of Maintenance Services
Marc Smithers	Resident Director - Rothenbuhler Hall
Janyce Smithley	Intercultural Admission Counselor
Josiah Snelgrove	Head Men's Lacrosse and Assistant Men's Soccer Coach
Rachael Snelgrove	Head Women's Field Hockey Coach and Women's Lacrosse Coach
Lori Sonnenfeld	Project Manager, P.A.C.E.
Ryan Spear	Associate Director of Admission Operations
Dennis Stack	Dean of Students
Seth Taylor	Network Administrator
Christopher Tetta	Web Coordinator
Lee-Anna Upperman	Resident Director - Gillette Hall
Matthew Webb	Head Men's Soccer Coach; Assistant Athletics Director
Aimee White	Admission Counselor
Ashley Whitney	Assistant Director of Housing; Resident Director - Lambein Hall
Stephanie Wittenrich	Assistant to the Dean of the Chapel and Student Programs Assistant
Pamela Witter	Director of Development
Collin Wright	Assistant Coach - Men's Basketball and Men's Lacrosse
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)

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 E. Avery (1987-93; 1998)

Instructional Technology Librarian; Professor Equivalent

BA, Houghton College, 1976; MBA, Plymouth State College, 1980; MLS, EDM, University at Buffalo, 1993, 2001; CAGS, Regent University, 2009

-
- Kenneth J. Bates** (Spring, 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
- Gregory T. Bish** (2004)
Director of Student Programs
BA, Houghton, 1995; MS, Alfred University, 1997
- Robert A. Black** (1991)
Professor of Economics; Hoselton Chair (2011-2014)
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. Buvoltz** (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 & Computer Science
BA, St. Olaf College, 1997; MS, PhD, Cornell University, 2006
- Jonathan P. Case** (2005)
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 Horn & Director of Instrumental Activities
BA, Harding University, 1984; MMus, University of Delaware, 2000; DA, 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)

(Sabbatical Fall 2012)

Professor of English

BA, Nazareth College, 1987; MA, PhD, Miami University of Ohio, 1989, 1996

David H. Davies (2011)

Assistant Professor of Music Theory and Composition

BMus, Houghton College, 2001; MM, DMA, University of Miami, 2004; 2007

Marcus W. Dean (2003)

Associate Professor of Intercultural Studies; Associate Dean for Intercultural, World Languages and Leisure 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

Sarah B. C. Derck (2012)

Assistant Professor of Old Testament

BA, Indiana Wesleyan University, 1999; MA, Nazarene Theological Seminary, 2002; PhD, Nazarene Theological College University of Manchester, 2012

William R. Doezema (1979)

Professor of History

AB, Calvin College, 1969; MA, PhD, Kent State University, 1974, 1978

Richard K. Eckley (1990)

Professor of Theology; NAIA 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)

(Sabbatical Spring 2013)

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

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

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

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; Associate Dean for Academic Administration; Director of Honors Programs

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; 2010 part-time)

Professor 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

Mark A. Hunter (2012)

Director, Center for Academic Success and Advising; Associate Professor of Psychology

BA, Western Kentucky University, 1981; MA, East Tennessee State University, 1991; MDiv, Samford University, 1997; PhD, University of Alabama, 2010

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

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

Thomas R. Kettelkamp (1975-76, 1978)

Professor of Recreation and Physical Education; Chair, Department of Leisure 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

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

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

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)

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
- 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) *(Sabbatical Spring 2013)*
Professor of Political Science; Chair, Department of History and Political Science; Chair of Integrative Studies Committee
 BA, Kenyon College, 1993; MA, PhD, University of Notre Dame, 1997, 1999
- Daniel C. Minchen** (2006, part-time 2011)
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, part-time 2010)
Counselor; Assistant Professor
 BA, Mount Vernon Nazarene College, 1980; MA, 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) *(Sabbatical Spring 2013)*
Associate Professor of Piano
 BA, University of California at Berkeley, 1994; MM, DMA, AD, Peabody Conservatory of Music/Johns Hopkins University, 1995, 1998, 2000
- 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
- Jun-Koo Park** (2012)
Assistant Professor of Applied Mathematics
 BS, Hanyang University, 2005; MS, PhD, Iowa State University, 2008, anticipated 2012
- Meic Pearse** (2004)
Professor of History; Director of the East Meets West Honors Program; Director of the Balkans Semester
 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
-

Stephen W. Plate (2012)

Professor of Music; Director of the Greatbatch School of Music; Area Associate Dean for Music
BMEd, Evangel University, 1979; MMus, DMA, University of Cincinnati/College Conservatory of Music, 1980, 1986

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

Cory J. Renbarger (2010)

Assistant Professor of Voice
BA, Concordia College, 2000; MMus, Artist Diploma, Cincinnati College Conservatory of Music, 2002, 2005; DMA, University of Minnesota, 2010

John M. Rhett (1995)

Professor of Art
BFA, MFA, Virginia Commonwealth University, 1979, 1995

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, University of Tennessee-Knoxville, 2003

John Rowley (2008)

Assistant Professor of Chemistry
BS, Houghton College, 2003; MS, PhD, Cornell University, 2005, 2008

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; Associate Professor Equivalent
 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
- Aaron M. Sullivan** (2004)
Associate 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)
Assistant Professor of Education
 BA, Mount 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
- Kulli Tõniste** (2006)
Assistant Professor of New Testament
 BA (equivalent), Baltic Methodist Theological Seminary, 2000; MA, Asbury Theological Seminary, 2002; PhD, Brunel University/London, 2010
- Karen E. Torraca** (2007)
Associate Professor of Chemistry; Chair, Department 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 P. Vandock** (2010) (on leave 2012-13)
Assistant Professor of Biology
 BS, Bowling Green State University, 2006; PhD, Bowling Green State University, 2010
- John F. Van Wicklin** (1983)
Professor of Psychology
 BS, Wheaton College, 1968; MA, Columbia University, 1971; PhD, New School for Social Research, 1981
- J. Michael Walters** (1995) (Sabbatical Fall 2012)
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
 BA, Gordon College, 1979; MDiv, Eastern Baptist Theological Seminary, 1982; MA, Villanova University, 1984; PhD, University of Rhode Island, 1989
-

Christopher M. Wells (2010)

Assistant Professor of Physics

BS, Houghton College, 2005; MA, The Johns Hopkins University, 2008; PhD, 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)

Professor of English

BA, Houghton College, 1974; MA, SUNY Binghamton, 1976; PhD, Drew University, 1989

Stephen A. Woolsey (1999)

Professor of English; Chair, Department of English and Writing

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 Down Under

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

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

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

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
BEEd, 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
- Richard A. Jacobson** (1966-2012)
Professor of Mathematics
BS, MS, South Dakota School of Mines, 1959, 1961
- Paul F. Johnson** (1972-94)
Professor of French
BA, MA, Boston University, 1951; MEd, Rhode Island College, 1969
- Ben R. King** (1980-1992, 1996-2011)
Professor of Voice; Director, School of Music; Associate Dean for Music
BM, MM, Texas Tech University, 1973, 1974; DMA, Eastman School of Music, 1985
- Harold E. Kingdon** (1967-2006)
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
- 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
- Carl Schultz** (1965-67; 1971-2011)
Professor of Old Testament
 BRE, Malone College, 1952; BA, Houghton College, 1953; MA, Wheaton College, 1954; PhD, Brandeis University, 1973
- 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

Susan M. Hice (1993-2011)

Associate Professor of Education; Director, Student Academic Services

BA, Kalamazoo College, 1965; MSciEd, SUNY College at Fredonia, 1974; PhD, Michigan State Univ., 1983

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	Chemistry	84
Academic information	32	Chez Vous Program	230
Academic petitions.....	44	China Studies Program (CCCU)	223
Accounting	51	Christian Formation.....	87
Accreditations	2	Christian ministries (AAS)	90
Admission.....	11	Church history (<i>see theology</i>)	
Adolescence education.....	104	Church music	162
Adult degree program (P.A.C.E.)	234	Class classification	41
Advanced placement tests	13	CLEP	13
Africa semester (Tanzania).....	217, 219	Clubs and organizations	244
American Studies Program (CCCU)	222	Coaching	176
Applied music	16, 159	Communication	91
Applied physics.....	117	Community expectation.....	7
Application	11	Composition	155
Army ROTC.....	9, 205	Computational physics.....	96
Art	54	Computer science	97
Art Education.....	105	Computing facilities	250
Articulation agreements	15	Consortium visitor.....	233
Athletic facilities	250	Contemporary Music Center Program.....	225
Attendance (requirements).....	38	Counseling services	243
termination of.....	42	Course load	37
Audit classes	38	Course numbering system	45
Au Sable Institute	230	Creedal Statement	6
Australia and New Zealand, Houghton in ..	217, 220	Crime statistics reporting	10
Australian and New Zealand Studies.....	62, 217, 220		
Automobile at college.....	247	Dean's honor list	42
Auto registration fees	17	Dean's list.....	42
		Degree completion program	234
Bible	63	Degree requirements.....	32-33
Biochemistry	67	Degrees offered	33-35
Biology	68	Disabilities, Students with.....	44
Board of Trustees	253	Dismissal.....	42
Board plan	18	Dropping classes	38
Boulder (yearbook).....	246		
Brass instruments (<i>see music</i>)		Earth science.....	99
Buildings and facilities.....	249	Economics	100
Business administration	79	Education.....	102
		Education: Art	105
Calendars	4, 5	Education: elementary/childhood.....	106
Career Services.....	242	Education: secondary/adolescence	104
CCCU	9, 222	Education: TESOL	105
Center for Academic Success and Advising	44	Educational Rights & Privacy Act	10
Change of schedule (<i>see Drop/Adds</i>).....	38	Eligibility for participation.....	40

Engineering/applied physics (dual-degree)	117	Internships	43
English	118	Islamic studies.....	146
Ensembles.....	163	Keyboard instruments (<i>see music</i>)	
Entrance examinations	12	Late registration (student fees).....	18
Environmental stewardship (<i>see biology</i>).....	75	Latin American Studies Program (CCCU)	226
Environmental studies (<i>see biology</i>).....	74	Law, Pre	190
Equestrian studies	121, 198	Liberal arts requirements	33
Expenses	16	Library	249
Family studies	123	Linguistics	146
Fees	17	Load-limit policy	37
Financial aid.....	21	Loans, scholarships, grants	21
Financial delinquency.....	19	London, Houghton in	217
Financial information	16	Los Angeles Film Studies Prog (CCCU)	228
First-year Honors Programs	133, 216	Majors offered.....	34-36
Five-College Committee	9	Mathematics.....	148
Foreign languages.....	124	Mayterm.....	18, 43
Forestry (<i>see Biology</i>)	71, 74	Medical technology	69, 72
French (<i>see foreign languages</i>)		Middle East Studies Program (CCCU)	229
General Information	6	Ministry—see the following headings:	
General Science.....	129	Christian Formation	
German (<i>see foreign languages</i>)		Missions	
Go ED Program	220	Religion	
Grade grievance procedure	39	Sports Ministry	
Grading system	39	Urban Ministry	
Graduation honors	42	Minors, self-designed.....	37
Graduation requirements.....	33	Mission of Houghton College.....	6
Grants, loans, scholarships.....	21	Missions	151
Greek (<i>see religion</i>)		Music.....	154
Guidance.....	42	Music education (<i>see music</i>)	
Health services.....	241	Music opportunities	162
Health professions, Pre.....	70	New student program	47
Hebrew (<i>see religion</i>)		New York State financial aid	23
History	130	New York teacher certification.....	104
History of Houghton College	7	Off-campus programs	216
Homeschoolers	15	Organ (<i>see music</i>)	
Honesty.....	41	Outdoor education.....	197
Honors programs.....	133, 216	Outreach groups.....	241
Honors projects.....	42	Oxford Summer School Prog (CCCU)	229
Horsemanship (<i>see equestrian</i>)		P.A.C.E. (degree completion).....	234
Houghton Balkans Semester.....	216, 218	Pastoral ministry (<i>see religion, ministerial</i> <i>concentration</i>)	
Houghton College City Semester.....	217, 218	Percussion instruments (<i>see music</i>)	
Houghton in Australia and New Zealand ...	217, 220	Petitions.....	44
Houghton in London	217	Philosophy.....	169
Houghton in Tanzania	217, 219	Philosophy statement.....	6
Houghton College scholarships	25	Physical education	172
Housing.....	17	Physical-Health education	174
Humanities.....	135	Physical therapy, Pre- (<i>see biology</i>)	70, 73
Immunization policy	242	Physics.....	182
Independent study.....	43	Computational.....	96
Information Technology Management	136	Piano (<i>see music</i>)	
Insurance, health & accident.....	18	Political Science	186
Integrative studies	48	Pre-Art Therapy	190
Integrative studies, BMus.....	155	Pre-health professions (<i>see biology</i>)	68, 70
Intercultural student programs	243	Pre-law	190
Intercultural studies	138	Pre-medical (<i>see biology</i>).....	69
Interdisciplinary studies	145		
International Business Institute.....	231		
International Development.....	145		

Pre-Pharmacy (<i>see biology</i>)	70, 73	Student government association	244
Pre-physical therapy (<i>see Biology</i>)	70, 73	Student life	240
Pre-seminary	191	Student teaching policy	103
President's list	42	Study abroad (<i>see off-campus programs</i>)	
Pre-veterinary (<i>see biology</i>)	70	Teacher certification (<i>see education</i>)	
Privacy Act	10	TESOL	210
Probation	42	Theology	211
Psychology	192	Theory (<i>see music</i>)	
Public Health	197	TOEFL	12
Quality point average	40	Training in Ministry Outreach (TIMO) program	231
Recreation	197	Transcript fees	17
Refunds	19	Transfer agreements	15
Religion	201	Transfer students	14
Religious observances	10, 37	Transitions 102 (<i>see New student program</i>)	
Repeating a course	40	Trustees	253
Residence life	240	Tuition rates	16, (P.A.C.E. 238)
Residency requirement	33	Tutorial study	43
Rochester Area Colleges	9	Tutoring service (CASA.)	44
ROTC (Army)	205	Urban ministry	213
Safety and Security	247	Veterinary, Pre- (<i>see biology</i>)	70
Satisfactory progress	23, 42	Voice (<i>see music</i>)	
Scholarships, grants, loans	21	Western New York Higher Ed Consortium	9
Second degree	33	Withdrawal from college	44
Secondary (adolescence) education	104	Woodwind instruments (<i>see music</i>)	
Semester schedule	4, 5	Work-study	22
Seminary, Pre-	191	Writing	214
Senior-in-absentia	43	Yearbook (<i>Boulder</i>)	246
Sociology	205	Youth ministry (<i>see Christian formation, youth concentration</i>)	
Spanish (<i>see foreign languages</i>)			
Spiritual life	241		
Sports Ministry	209		
String instruments (<i>see music</i>)			

