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## General Information

- 2021-2022 College Calendar
- Mission Statement


## Philosophy

Houghton College, an educational institution of The Wesleyan Church, seeks to prepare "scholar servants" for effective engagement with the rapidly changing world of the $21^{\text {st }}$ century. As "scholars," students are trained in the theoretical knowledge of their fields but also in how to apply that knowledge to practical circumstances in this country and around the world. As "servants," they are inspired to steward their gifts humbly and graciously in the name of Jesus Christ in whatever circumstances in which God calls them to serve.

To be prepared to serve effectively, a Houghton graduate must develop 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 through a thorough grounding in one or more academic disciplines in addition to familiarity with the fundamental concepts, principles, and methods of the basic fields of knowledge. Learning must also relate disciplines to one another 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 be inspired to serve with grace, Houghton graduates must encounter positive models through life examples from Houghton's faculty and staff. To communicate Christianity effectively to others, their reasoned faith must rest on sufficient knowledge of the Bible and its central doctrines. Their lives will translate that knowledge into the daily circumstances of a worshipping and learning community.

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. The faculty and staff will strive to provide a challenging and stimulating intellectual environment that is also nurturing and supportive. The community will 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 such 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 Vision of Our Common Life. 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 two-thirds of these chapels per semester.

## 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 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.

## History

The institution was established in 1883 as a seminary (high school) under the Wesleyan Methodist Connection. Coeducational from its founding, Houghton operated as a secondary school for its first 15 years. The institution has been committed from its conception to making a high-quality, deeply Christian education available to those would not otherwise have this kind of opportunity. The commitment is grounded in the conviction that God has gifted each individual in ways that ought to be developed for the purpose of more effectively participating in God's redemptive purposes throughout our world. Thus, affordability, accessibility, and global engagement—as well as high quality and deeply Christian faith—have been consistent trademarks of a Houghton education throughout our history.

Beginning in 1899, a few college classes were offered—sufficient to allow the college department's first diploma to be awarded in 1901. Early principals of the school were Wesleyan Methodist pastors willing to accept the job, but, in 1908, Houghton acquired its first academically trained president, James S. Luckey, who served until his death in 1937.

President Luckey believed that, if Houghton College was to have the impact that God intended, it needed to be recognized within the larger world of American higher education. Thanks in large part to President Luckey's persistent efforts, Houghton College received its provisional charter from New York State in 1923 and awarded its first 19 baccalaureate degrees two years later. A permanent charter was granted in 1927 followed by full accreditation by the Middle States Association of Schools and Colleges in 1935.

When the former Buffalo Bible Institute in West Seneca merged with Houghton College in 1969, the West Seneca site was created. The programs at this site 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 now moved the focus of its work in Erie County from the former Buffalo Bible Institute site in West Seneca to Houghton College Buffalo Symphony Circle and Houghton College Buffalo, East Side. Through these teaching sites, as well as a growing presence through Houghton Online, Houghton College is continuing to expand its efforts to make a high-quality, deeply Christian education available to those of all ages who would not otherwise have this opportunity.

Throughout its history, Houghton has affirmed that an education grounded in a deep sense of our identity as God's children and a commitment to excellence in critical thinking, communication, and community formation is the very best preparation for a lifetime of effectiveness and impact in the everchanging circumstances of our $21^{\text {st- }}$-century world.

## 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 2015.

The Greatbatch School of Music is a member of and accredited by the National Association of Schools of Music, and the requirements for entrance and 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 Houghton College Teacher Education Program (HCTEP) is currently pursuing accreditation of its educator-preparation programs by the Association for Advancing Quality in Educator Preparation (AAQEP). Pursuant to $\$ 52.21$ of the Regulations of the Commissioner of Education, the educator-preparation programs offered by Houghton College are considered to be continuously accredited for the purposes of meeting the New York State requirement that all such programs maintain continuous accreditation. The HCTEP is a member in good standing of the AAQEP and is working toward accreditation of its educator-preparation programs under the AAQEP standards with an anticipated Quality Assurance Review in Spring 2021.

## Houghton Graduates

Each year, an average of $65 \%$ of Houghton's graduates go on to full-time employment. The remaining $35 \%$ enter graduate school within a year of leaving Houghton. Approximately $16 \%$ 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. Postgraduation statistics are available from the Office of Vocation and Calling.

## Consortiums

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

- Christian College Consortium
- Council for Christian Colleges and Universities (CCCU)
- See Off-Campus Study Opportunities for information about the off-campus options with the CCCU.
- Acadeum Online Course Sharing Consortium
- Western New York Consortium of Higher Education
- Five-College Committee
- Houghton is 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 can be found through the Registrar's Office.

- Rochester Area Colleges
- Rochester Area Colleges is a consortium of higher education institutions in the Rochester, NY, area. Founded in 1970, Rochester Area Colleges has numerous area public and private colleges as members and provides many 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 Registrar's Office.


## Policy Information

- Army ROTC
- Family Educational Rights and Privacy Act
- Crime Statistics Reporting
- Harassment Policy and Prevention


## Administrative Staff

| Name | Title |
| :--- | :--- |
| Erin Bard | Network Administrator |
| Kushal Bhardwaj | Associate Director, Symphony Circle |
| Greg Bish | Chief of Staff, Office of the President |
| Michael Blankenship Director of Marketing and Communications |  |
| Kathleen Breitigan | Director of Residence Life and Housing |
| Carlton Campbell | Assistant Director of Technical Arts |
| Daniel Chapman | Assistant Athletic Trainer |
| Alissa Collins | Resident Director of Gillette Hall |
| Guthrie Collins | Director of Campus Recreation; Head Disc Golf Coach |
| Benjamin Colter | Donor Relations Coordinator |
| Rebecca Crouch | Director of Conferences and Community Engagement |
| Tammy Dunmire | Assistant Director of Online Student Success/Academic Services |
| Nikki Elsaesser | Head Women's Soccer Coach |
| Danae Forrest | Controller |
| Phyllis Gaerte | Senior Director of Alumni and Community Engagement Director |
| Kurtis Habecker | Director of Data Management |
| Patrick Hager | Head Cross Country and Track and Field Coach |


| Don Haingray | Director of Technology Services |
| :--- | :--- |
| Deanna Hand | Associate Athletic Director for Sports Medicine and Administration |
| Jay Livingston | Associate Director of Technology Services |
| Marianne Loper | Director of Student Financial Services |
| H. "Skip" Lord | National Director of Athletics Engagement |
| Robert McColl | Head Men's Soccer Coach |
| Pierre Michel | Program Director-Symphony Circle |
| J. L. Miller | Director of Strategic Partnerships; Associate Dean of the Chapel |
| Jason Mucher | Associate Director of Athletics for Compliance and Communications |
| Daniel Noyes | Regional Director of Development |
| Heléna Oden | Campus Store Director |
| John Oden | Executive Director of Advancement Services and Operations |
| Hannah Ogden | Head Field Hockey Coach |
| Ray Parlett | Director of Campus Safety and Security |
| Phillip Pellegrino | Head Women's Basketball Coach |
| Beth Phifer | Resident Director of Lambein Hall; Assistant Director of Housing |
| Chad Plymale | Facilities Manager |
| Brian Reitnour | Head Baseball Coach and Assistant Sports Information Director |
| Susanna Roorbach | Associate Registrar |
| Elizabeth Rutledge- | Associate Director for Admission Events and Office Operations |
| Aikens |  |
| Katherine Sinclair | Head Softball Coach and Event Services Specialist |
| Nancy Stanley | Associate Director of Human Resources |
| Meghan Taylor | Director of Graduate and Online Admission |
| Seth Taylor | Senior Network Administrator |
| Joshua Tompkins | Head Volleyball Coach |
| Jason Towers | Chief Officer of Enrollment and Marketing |
| Austin Walden | Assistant Athletic Trainer |
| Matthew Webb | Director of Athletics |
| Lance Westberg | Head Men's Basketball Coach |
| Shua Wilmot | Men's Area Coordinator |
| Jane Willis | Interim Program Director-Houghton Utica |
| Amanda Zambrano | Grant Writer and Donor Communications Director |
| Raegan Zelaya | Area Coordinator, Women's Hall and Townhouses |
| Buildings and Facilities |  |
| Campus map and building and facilities information |  |

## Computing Facilities

The College offers wired network access for each student in a college-owned dormitory or townhouse as well as a robust campus-wide wireless network. Most classrooms have projection technology. There are several wired classrooms and two distance-learning facilities. The Art, Music, Communication, and Computer Science departments maintain labs for departmentspecific applications. General-use computers and print centers are located in the basement of the Campus Center and on the second floor of the library. Additional print centers are located in the Chamberlain Center, Library, Paine Science Center, and Center for the Arts and in the laundry room of the Hazlett townhouse.

## Health Center

Located in the lower level of the southwest wing of Gillette Hall, the Health Center contains exam rooms and a nursing treatment room, reception area, and conference room.

## Trustees and Officers

## Board of Trustees

| Names | City, State |
| :--- | :--- |
| Gary Bahler | Stockbridge, MA |
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| Wayne Schmidt ex officio | - Indianapolis, IN |
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| Ruth Woodworth | Fredericton, NB |
| Jun Zhuang | Buffalo, NY |
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| President's Advisory Board |  |
| Names | City, State |
| Adam Compton | Atlanta, GA |
| Matthew Eubanks | Louisville, CO |
| Melissa Fisher (chair, interim) | Rochester Hills, MI |
| Jamey Moran | Williamsville, NY |
| Audrey Moses | Houston, TX |
| Jeffrey Prinsell | Marietta, GA |
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| Stephen Sawanda | Zionsville, IN |
| Jeffrey Thompson | East Aurora, NY |
| Robert Van Dyk | Ridgewood, NJ |
| Chief Officers of Administration |  |
| Name | Title |
| Wayne D. Lewis | President |
| Cathy Freytag | Chief Academic Officer and Dean of the Faculty (interim) |
| Kenneth Schenck | Vice President for Planning and Innovation |
| Karl Sisson | Vice President for Advancement and External Relations |
| Marc A. Smithers | Chief Student Life Officer, Dean of Students |

Jason Towers<br>Vice President of Enrollment and Marketing<br>Dale Wright<br>Chief Fiscal Officer and Vice President for Finance

## Admission Information

## General Information

Houghton admits students who demonstrate ability to contribute to and benefit from Houghton's Christ-centered academic community. The Office of Admission holistically reviews each application for admission.

## Nondiscrimination

Houghton College admits students of any race, color, and national or ethnic origin to all the rights, privileges, programs, and activities generally accorded or made available to students at the school. It does not discriminate based on sex, race, color, national or ethnic origin, or handicap in administration of its educational policies, admission policies, scholarship and loan options, and athletic or other school-administered offerings. 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.

## Application Decisions

Applicants to Houghton College will be granted one of the following admission decisions upon completion of their application file: admission, admission with support, waitlist, or denial of admission. Students admitted with support are reviewed by the admission committee, a cross-section of campus representatives from student life, academic support services, faculty, students (one representative), and the Academic Dean's Office.

Admission with support refers to resources assigned to facilitate transition to the rigors of college life. Resources include mandatory consultation with the Center for Student Success; "light load" (no more than 14 credits the first semester); Writing in the Liberal Arts; and, in some cases, admission on probation (referred to as "manual probation"). Students admitted on manual probation are expected to achieve a GPA benchmark by a set date (after either the first semester or the first year of attendance) to remain enrolled and remove the probationary restriction.

Students placed on the waitlist are those who demonstrate the ability to be successful at Houghton but regarding whom more information is required before offering an official decision. Students can improve their standing on the waitlist by following guidance from admission staff members. Initial waitlist decisions are made after March 1 but may be made in advance if the candidate has shown initiative by following through on guidance from the Office of Admission.

A denial of admission is often a "not yet" rather than a "never"; we encourage students not initially eligible for admission to pursue higher education at another institution and reapply as transfer students. Students may appeal a denial of admission by contacting their admission counselors and following their guidance. An appeal does not guarantee a different outcome
but is intended for students to show additional information to that contained in their first application.

## Application Forms

Students will be eligible to receive an admission decision upon completing an application for admission. First-year applicants are eligible for an admission decision after completing their junior year of high school and submitting a transcript showing grades to that point.

An admission decision will be provided upon completion of the application file. All students are required to submit the application as well as a personal statement, recommendation, and transcript(s). Houghton is a test-optional school, and students have the freedom to choose whether or not to submit standardized test scores.

International students whose first language is other than English must submit a Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS). They may also submit a Scholastic Assessment Test (SAT) of the College Entrance Examination Board, American College Testing exam (ACT), or Classic Learning Test (CLT) score in lieu of the TOEFL or IELTS.

Houghton College accepts The Common Application in addition to our own online or print application. Application forms are available from the Office of Admission, Houghton College, Houghton, NY 14744 (email: admission@houghton.edu | website: http://www.houghton.edu/admission | phone: 800.777.2556).

## Application Deadlines

The Office of Admission responds to applications on a rolling basis beginning in early fall. The application for admission for fall generally becomes available on or before August 1 . It is in a student's best interest to apply early in the fall to be considered for opportunities such as Honors at Houghton and top scholarships. The application fee will be waived for students applying on or before October 15.

Accepted applicants are asked to confirm their intention to enroll by paying a $\$ 300$ enrollment deposit by May 1 or, if admitted after that date, within four weeks of receiving a financial aid award letter, thereby reserving a place in the entering class.

For applicants considering the spring semester, the priority application deadline is December 1.

## Waiving of Enrollment Deposits

In isolated cases, a student may submit a written request for a deposit fee waiver. To be considered, the following must be true:

- The Chief Admission Officer or designee and the Chief Financial Aid Officer or designee must mutually approve.
- The student must demonstrate sufficient funding through at least one of the following options:
- signing up for a payment plan and making the first payment,
- presenting evidence of an approved loan sufficient to cover the balance, or - otherwise demonstrating sufficient funding for the remaining balance.

If a deposit is waived and the student does not comply with the above policy, such as signing up for a payment plan and failing to make scheduled payments, the waiver may be revoked,
and the deposit may be required prior to the student's approval to register for courses, receive campus housing, and be officially approved to arrive on campus. Failure to comply with other financial validation steps, such as submission of final transcripts, health insurance opt-out, medical forms, and other required documents, may result in the revocation of the enrollment deposit waiver.

## Application Fee

The application fee is $\$ 40$ and may be refundable. The application fee will be waived for students who regularly attend a Wesleyan church, are dependents of Houghton alumni, or have submitted their application through specified fee-waiver opportunities.

## Music Majors

Music majors must complete additional questions on their admission application and audition for The Greatbatch School of Music. Music applications can be obtained from The Greatbatch School of Music (email: music@houghton.edu | website: http://www.houghton.edu/music | phone: 800.777 .2556 , ext. 4000) or completed online. There is no separate application fee for The Greatbatch School of Music.

## Honors at Houghton Admission

Upon admission to Houghton, select students will be invited to interview for admission to Honors at Houghton. All students who meet the eligibility threshold based on academic criteria are considered regardless of intended academic major. Invitations to interview are sent after a student has been admitted beginning early in the fall semester. Candidates must attend an interview weekend. International applicants are strongly encouraged to interview in person but may be extended a remote interview opportunity.
Admission decisions for Honors at Houghton are made upon completion of an interview. Those waitlisted for Honors at Houghton will begin receiving notification of offers of admission into Honors at Houghton after subsequent honors weekends or at the conclusion of the entire interview process, pending availability in each cohort.
Upon completion of Honors at Houghton, students are eligible to participate in Honors Seminars and can graduate with Honors distinction.
Students invited to interview for Honors at Houghton are also considered for the selective James S. Luckey full-tuition scholarship.

For further information, please contact the Office of Admission or visit the Honors at Houghton website.

## Recommended High School Courses

Houghton regards quality high school achievement as more important than any specific alignment of courses; however, the following are recommended for 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

All applicants are encouraged but not required to submit a college entrance examination as part of the application file. Options include the SAT, ACT, and CLT. Admission decisions are made holistically, and students also have the option to waive the test score requirement. Applicants seeking consideration for additional opportunities listed below should plan to submit a college entrance examination:

- Honors at Houghton
- Higher-level merit-based scholarship
- International application (excludes Canadians) - students may take the TOEFL or IELTS
- The LECOM medical school or University of Buffalo Pharmacy programs

Individual academic departments reserve the right to require test scores as they relate to accreditation policies for those areas/programs (e.g., Education department) and/or program entrance criteria.

When considering the SAT, the Office of Admission focuses on the evidence-based reading and writing and math sections. For the ACT, the focus is on the four traditional sections: English, Reading, Math, and Science Reasoning. The Office of Admission has a policy of "super-scoring" test scores such that an applicant's best subset scores from multiple tests (including the CLT) are used in decisions.

Information regarding the SAT, ACT, and CLT may be obtained from College Board, the ACT website, and the CLT website, respectively.

Houghton's institution code numbers are 2299 for the SAT and 2766 for the ACT.

## International Students

Application requirements for international students can be found on our website. Canadian applicants must submit a Houghton-specific Canadian Financial Aid Application, and all other international applicants must submit an Affidavit of Financial Support as part of the admission and financial aid process.
Students who attended a high school in which English was not the primary language of instruction must demonstrate English proficiency. Students may submit a score from the TOEFL, the IELTS, Duolingo, or the SAT. 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. Houghton will also accept an IELTS score of 6.5 or higher, a Duolingo score of 105 or higher, or an SAT Evidence-Based Reading and Writing score of 500 or higher.

In unique cases in which access to a standardized test is not possible, the admission committee reserves the right to evaluate international applicants based on student-specific circumstances.

High School Equivalency
An applicant may be considered for admission based on adequate scores on a valid high school completion credential, such as the Test Assessing Secondary Completion. Students seeking to dual-enroll during their senior year of high school should consult 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. See the current list of approved tests and applications of credit.

Inquiry concerning these tests should be made to the applicant's high school guidance office or the AP program of the College Entrance Examination Board.

CLEP
College-Level Examination Program (CLEP) tests may be applied for advanced placement and/or credit. Only subject examinations will be accepted from CLEP. Guidelines for the transfer of credit via CLEP can be found on our Guidelines page.

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 a 205-level foreign language course and at the intermediate level provided the testing is done prior to the completion of the first advanced course. More information on CLEP exams may be obtained from College Board.

## Readmission/Request to Return

Students who have previously applied to Houghton College within the past two years may submit a brief reapplication form to have their original application for admission reactivated. If more than two years have passed since the most recent application, students seeking admission may need to begin a new application. In both cases, any transcripts must be sent to the College. The reapplication form is accessible on the Admission website.

Students who matriculated at Houghton College and withdrew for any reason and wish to return must submit the Request to Return form and ensure that the College receives transcripts for any college work taken in the interim. Approval to return is granted upon consent from campus stakeholders and receipt of any new information submitted since the student left Houghton, such as academic coursework completed elsewhere. The Request to Return form is accessible on the Admission website.

Homeschooled Students
Houghton College welcomes applications from homeschooled students.
Houghton considers each homeschooled applicant individually and holistically and does not state a preference for any one curriculum or homeschool approach over another. Homeschoolers who submit work to a distance learning entity should have that organization send a transcript. Otherwise, families should provide information regarding academic work and related activities for the $9^{\text {th }}-12^{\text {th }}$-grade years. The Admission page of the Houghton College website features a sample curricular template and other useful information for homeschool families. While Houghton is a test-optional school, homeschool families that engage in a nongraded approach will be asked to submit standardized test scores. Houghton administers the ACT in a residual format (see the Entrance Examination section of the catalog for information).

While the Office of Admission may admit a homeschooled student regardless of external secondary-completion credentials, certain Ability to Benefit documentation must be provided to be eligible for federal and/or New York State aid. Contact the Office of Admission to discuss these requirements. For New York State students in particular, note the information below. It
may also be in a student's best interest to submit a college entrance examination if external grading is unavailable for a substantial portion of secondary coursework. For instance, if a homeschooled student has enrolled in $12+$ credit hours of college-level coursework, that student may decline to submit a college entrance examination score as part of the application process.

New York residents wishing to receive state need-based financial aid (NYS TAP) must demonstrate the Ability to Benefit from higher education. A secondary-education completion credential (such as the Test Assessing Secondary Completion) or high school diploma (from a school registered with the State of New York) is acceptable, as is a passing score on one of several basic skills tests. A letter attesting to the substantial equivalency of the student's homeschool education from a local public high school official will also meet the Ability to Benefit requirement.

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

## Part-time Students

An individual who wishes to take a class as a part-time student must complete a guest student application form online. Similarly, high school (and homeschool) students who wish to take a class prior to graduating from high school must complete the guest student application form. High school students must have completed their sophomore year to take a class at the College. Certain other stipulations and restrictions may apply; please contact the Office of Admission for further details.

Dual Enrollment
Houghton College has partnered with select high schools to offer dual-enrollment courses.

## Transfer Admission Information

A transfer student is defined as any student who has either enrolled as a full-time college student or attempted at least 12 credit hours subsequent to secondary completion. There may be special considerations for homeschooled or high school students who have enrolled in college coursework as part of their curriculum and graduation requirements.

Transfer students are welcome at Houghton with preference given to individuals who present a grade point average (GPA) of 3.00 or higher. Transfer students are expected to reside initially in college housing unless commuting from a family home or at least 24 years old.

To be considered for admission, transfer students must submit at least one letter of recommendation, a personal statement, and official transcripts from all colleges attended. In some instances, a transfer applicant may be asked to submit a high school transcript for admission consideration and financial aid eligibility.

## Undergraduate Transfer Credit Guidelines

Transfers must complete at least 30 hours at Houghton and earn at least 50\% of their major hours at Houghton.

Transfer credits are accepted from institutions that are regionally accredited and listed by the U.S. Office of Education in its current Education Directory of Colleges and Universities.

A maximum of 32 hours of approved 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 Cor above from a regionally accredited community college or a Bible college accredited by the Association for Biblical Higher Education.

College officials, 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. To request a transfer credit evaluation, a student should contact the Office of Admission.

Grades from other colleges and universities will not be considered in the GPA calculation.
Latin honors are awarded for bachelor-level degrees only. At least 62 credit hours must be taken at Houghton to be eligible for graduation Latin honors (cum laude, magna cum laude, or summa cum laude). To be eligible to be valedictorian or salutatorian, a student must be a main campus student, full-time in the spring semester, and a May graduate and must have earned a minimum of 90 Houghton College credits.

## Undergraduate Students with Less Than a Full Year of College Credit

For students who have had less than a full year of successful college experience-as demonstrated by fewer than 25 transferable* semester credit hours-a course-by-course assessment will be done.
*"Transferable" refers to previous coursework that is awarded credit at Houghton College.
Undergraduate Transfer Students with a Full Year of College Credit
Students who have at least a full year of successful college experience-as demonstrated by at least 25 transferable semester credit hours-have the choice of completing the full curriculum (of 30 hours) below to complete their General Education requirements or doing a course-bycourse assessment of what they have taken previously.

| Credits | Courses | Notes |
| :--- | :--- | :--- |
| 9 | BIBL 101 Biblical Literature <br> THEL 209 Introduction to Christianity <br> Additional BIBL or THEL course |  |
| $2-4$ | Choose one of the following: <br> STEM 140 Reason and Abstraction <br> MATH 141 Mathematical Explorations <br> MATH 181 Calculus I <br> MATH course numbered 160 or higher <br> DSCI 211 Data Science I |  |
| 4 | STEM 141 Science as a Human Endeavor <br> STEM 142 Science and Society | Entire category met by completing <br> science major or minor, 16 hrs of lab <br> science courses, or BIOL 207 |


| 3 | Writing-Enriched Course (chosen from the following): <br> BIBL 482 Senior Capstone: Senior Seminar in Bible <br> BIOL 482 Senior Capstone: Biology Seminar <br> CHEM 335 Biochemistry II Lab <br> CHEM 361 Physical Chemistry I <br> EDUC 485 Senior Capstone: Seminar on Reflective Teaching <br> ENGL 301 Critical Approaches to Literature <br> IDEV 482 Senior Capstone: International Development Seminar <br> IDEV 484 Integrative Senior Seminar <br> INCL 482 Senior Capstone: Intercultural Seminar <br> MED 419 Student Teaching Seminar <br> MHS 230/280 Music History and Literature 1/2+ <br> PHYS 482 Senior Capstone: Physics Seminar <br> PSY 480 Senior Capstone Seminar in Psychology <br> WRIT 211 Narrative and Personal Essay <br> WRIT 214 Literary Non-Fiction <br> WRIT 217 Professional Writing <br> WRIT 218 Writing about Literature and Culture <br> WRIT 301 Writing Fiction <br> WRIT 307 Writing about Spiritual Experience <br> WRIT 312 Writing for Social Change <br> WRIT 320 Special Topics: Feature Writing <br> WRIT 325 Writing Reviews | ${ }^{+}$Music History and Literature 1 and 2 must both be taken to fulfill the Writing-Enriched requirement. |
| :---: | :---: | :---: |
| 6 | Two of the following: <br> HUM 101 The Ancient and Medieval World HUM 102 The Early-Modern World HUM 201 The Late-Modern World |  |
| 0 | INTS 104 Transitions: Succeeding at Houghton College |  |
| 3-4 | Choose one of the following: <br> ANTH/INCL/SOC 243 Cultural Anthropology ${ }^{\ddagger}$ <br> COMM 205 Introduction to Communication Theory <br> COMM 214 Introduction to Mass Media <br> ECON 210 Principles of Microeconomics <br> ECON 211 Principles of Macroeconomics <br> POLS 205 In Search of Justice <br> PSY 111 Introduction to Psychology <br> SOC 101 Introduction to Sociology | ${ }^{\ddagger}$ Cultural Anthropology meets either Social Sciences or Changing World requirement, not both. |
| 2-4 | Choose one course in a world language or in the study of the contemporary global world (from the following): <br> Any SPAN/FREN/GERM/HEBR/GREK language course <br> 3-4-credit language course taken while studying abroad <br> ANTH/INCL/SOC 243 Cultural Anthropology ${ }^{\ddagger}$ <br> ANTH/SOC 315 Human Ecology | ${ }^{\ddagger}$ Cultural Anthropology meets either Social Sciences or Changing World requirement, not both. |

$\left.\begin{array}{|l|l|l|}\hline & \text { EDUC } 240 \text { Teaching in Urban America (for Education majors } & \\ \text { and minors only) } \\ & \text { ENGL 361 Contemporary World Literature } \\ \text { ENST } 201 \text { Environment and Society } \\ \text { IDEV } 338 \text { Issues in Development } \\ \text { INCL } 201 \text { Introduction to Global Issues } \\ \text { INCL/ANTH 310 Intercultural Competencies } \\ \text { INCL/BADM 343 Multicultural Teams and Leadership } \\ \text { INCL/MISS 361 Engaging the Muslim World } \\ \text { LING 220 Introduction to Linguistics } \\ \text { LING 312 Sociolinguistics } \\ \text { MHS 256 Music and Global Cultures from a Christian } \\ \text { Perspective } \\ \text { MISS 242 Missions and the Global Church } \\ \text { POLS/HIST/HUM 247 Switzerland: A Case Study in European } \\ \text { Politics and Culture } \\ \text { SOC 350 Culture Change and Globalization }\end{array}\right]$

## Junior Transfers from Four-Year Baccalaureate Institutions

For students who have been enrolled in a baccalaureate degree program at an accredited baccalaureate institution and have successfully completed 60 or more semester hours of transferable credits, special considerations apply in meeting Houghton's General Education requirements.

Students who have earned at least 45 transferable hours in at least seven of the following nine areas need only take INTS 104 Transitions, Biblical Literature, Introduction to Christianity, and a 3-credit elective in Bible or Theology (9 credits total) to complete their General Education requirements: writing, literature, foreign language, social science, philosophy, fine arts, history, math, and science.

## Students with an Associate Degree

Transfer students who have earned an Associate of Arts (AA) or Associate of Science (AS) degree from a regionally accredited college may enter as juniors. Such students must take Biblical Literature, Introduction to Christianity, a 3-credit elective in Bible or Theology (9 credits total), and Transitions (INTS 104) to complete their General Education requirements. This policy does not apply to students who have attended Houghton previously or who have earned an Associate of Applied Science (AAS) degree. Students with an AAS degree will fall under the policy for Undergraduate Transfer Students with a Full Year of College Credit.

## Transfer Agreements with Community Colleges

Houghton College has established transfer articulation agreements with community colleges across New York State. These agreements allow graduates who earn AA or AS degrees to transfer directly to Houghton with junior class standing.

## Consumer Information Disclosure

In compliance with Student Consumer Information Regulations, Houghton College has developed a central guide to sources of consumer information. These disclosures, which are available at https://www.houghton.edu/about/college-profile/consumer-informationdisclosure, provide specific information to comply with the Higher Education Act of 1965, as amended by the Higher Education Opportunity Act of 2008. The disclosures provided at this website include (but are not limited to) specific student rights regarding education records and directory information under the Family Education Rights and Privacy Act and information about financial aid, educational programs, accreditation, copyright infringement policies and sanctions, student loan information, campus safety, annual campus safety security reports, and federal requirements for return of funds as well as institutional statistics such as completion, graduation, and transfer-out rates. Individuals may obtain a paper copy of this list and information on any of the disclosures upon request.

## Financial Information

## General Information

The goal of the Student Financial Services Office is to assist families through the financial aid process and 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 the aid counselors about particular situations regarding funding. This is especially true for students considering participation in consortium or study-abroad opportunities.

## Student Accounts

The mission of the Student Accounts office is to provide excellent service for students, parents, and colleagues while upholding internal controls that ensure financial transactions are accurately processed and proper records are maintained. The office is responsible for billing and collection of student tuition, fees, and room and board for each semester as well as the receipt and disbursement of all student financial aid, including processing refunds from financial aid awards.

It is our goal to provide excellent service and support to our student population in a professional manner to create a positive environment for our students and their parents as well as our colleagues. We hope this information helps give students and parents insight into the functions of Student Accounts at Houghton College.

## Tuition and Fees

The Fee Schedule for the Main Campus can be found at www.houghton.edu/financial-aid/tuition-and-fees/fee-schedule; all prices are subject to change.

Department of Online Programs - Tuition and Fees

## General Information and Policies

- Student Accounts Policies
- Mayterm
- Payments
- Off-campus Study Opportunities

Students wishing to appeal a financial policy must complete the Financial Policy Appeal Form and return it to the Student Financial Services Office. It will be reviewed by the Financial Policy Subcommittee, and the student will be informed of the committee's decision in a timely manner.

## Financial Aid

At Houghton, we believe it's our job to do more than develop the next generation of bright minds and industrious professionals. We develop thoughtful, generous, responsible human beings-people with open minds, deep faith, and compassionate hearts-who will make an impact on the world, whether by going on a mission trip, creating environmentally sound technologies, or conducting business with skill and integrity.

We are committed to the needs of our students and their parents and recognize that college is a significant and personal investment and a major concern for most families. At Houghton College, our financial aid staff understands your concerns, and we do everything we can to make this process as easy as possible.

Our goal is to make an education at Houghton College affordable for all our students. Although we are not able to meet the full need of every student, we use every manner possible to coordinate adequate resources, combining the various types of financial aid available to enable you to invest in higher education at Houghton College.

We hope the information here will help you navigate the financial aid process and offer valuable resources as you prepare for this important step in your life.

Canadians and other international students may apply for institutional aid by completing the Financial Affidavit as part of the Admission process.

## Free Application for Federal Student Aid (FAFSA)

Any U.S. student who wishes to be considered for aid funds administered by Houghton College must submit a FAFSA. Priority consideration is given to students whose applications are received by February 1. For example, students attending in the 2021-2022 academic year may submit a FAFSA beginning October 1, 2020, and priority will be given to applications received by February 1, 2021.

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 Student Financial Services Office attempts to defray the financial need of each student through various financial aid options.

All grants, scholarships, and federal loans are credited to the student's account each semester. Federal college work-study earnings are paid by check (or direct deposit if requested) to the student on a biweekly basis.

## Requirements for Financial Aid Consideration

A student must be matriculated and making satisfactory academic progress to receive financial aid. A matriculated student is one who has met the entrance requirements and is pursuing a
degree. Institutional aid is prorated according to enrollment status (i.e., full-time, part-time, etc.).

All inquiries concerning tuition, fees, scholarships, grants, or loans should be directed to Student Financial Services, Houghton College, One Willard Avenue, Houghton, NY 14744 (phone: 585.567.9328 | email: sfso@houghton.edu | web: www.houghton.edu/sfso).

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

## Refund Policy

Houghton College's refund policy is in accordance with the U.S. Department of Education's (DOE) 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 is applied to student accounts after the close of the period during which courses can be added or dropped for the semester (add/drop period). Credit balances caused by financial aid are refunded after careful evaluation of the student's account and eligibility.

Students wishing to keep the credit balance on their student account must provide a written and signed request to the Student Financial Services Office as required by the federal regulations for Title IV funds.

The term "Title IV Funds" refers to the federal financial aid programs authorized under the Higher Education Act of 1965 (as amended) and includes the following programs: Federal Direct Loans, Federal PLUS Loans, Federal Perkins Loans, Federal Pell Grants, and Federal SEOG.
Note: As of this publication, the Federal Higher Education Reauthorization Act has not been finalized and may affect federal aid.

Eligibility for refund depends 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 a student account as a result of withdrawal will be refunded within a minimum of two weeks after the student has officially withdrawn through the Registrar's Office.

## Change in Enrollment Status

If a student changes enrollment status after receiving 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.

Students who withdraw from Houghton College receive only the balance remaining on the student 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 on which the student began the institution's withdrawal process or officially notified the institution of the intent to withdraw; for a student who leaves without notifying the institution, the midpoint of the term is used as the withdrawal date. The refund charts for our semester and modular programs are below.

If a student stops attending classes and begins the withdrawal process but remains on campus utilizing room and/or board for an additional amount of time, separate dates will be used to calculate room and board refunds. Students withdrawing before classes begin for a given term will receive a $100 \%$ refund of charges. A copy of the worksheet used for the refund calculation can be requested from the Student Financial Services Office.

Any student who is granted a medical withdrawal may receive a refund of charges prorated on a per-situation basis up to the $100 \%$ point in the semester. The Office of Student Life must approve a medical withdrawal. A student who is granted a leave of absence is treated in the same manner as students who withdraw from the College.

| Fall/Spring Tuition, Room, and Meal Plan Refund: |  |
| :--- | :--- |
| Before $1^{\text {st }}$ day of classes | $100 \%$ |
| Days 1 and 2 | $100 \%$ |
| Remainder of Week 1 (Days 3-7) | $90 \%$ |
| Week 2 | $75 \%$ |
| Week 3 | $25 \%$ |
| Week 4 | $0 \%$ |
| Week 5 and after | $100 \%$ |
| Refund 8-Week Modules: | $75 \%$ |
| First Two Days | $50 \%$ |
| Remainder of Week 1 (Days 3-7) | $0 \%$ |
| Week 2 |  |
| Week 3 and after |  |

Note: The 8-week Module refund chart applies only to students enrolled in one (1) module for the semester.

## Return of Federal Title IV Funds Policy

Title IV aid and all other aid are earned in a prorated manner on a per-diem basis following the academic calendar up to the 60\% point in the semester, after which Title IV aid and all other aid are viewed as 100\% earned.

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 $60 \%$ mark of the semester in which aid is received, all federal aid is considered earned and is not subject to this policy.
- If a student completes the institution's withdrawal process before the $60 \%$ mark of the semester, a prorated 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 prorated 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.
Returned federal Title IV funds will be distributed according to statutory regulations. Worksheets/formulas provided by the U.S. DOE 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 DOE via the National Student Loan Database, 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 on which Houghton College determined that the student withdrew.
** The fees, procedures, and policies listed above supersede those published previously and are subject to change at any time. **

## 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 to remain eligible to receive financial aid. Satisfactory academic progress includes both qualitative (GPA) and quantitative (number of credit hours completed) measures of the student's progress. For a four-year (eight-semester) bachelor's degree, there is a 12 -semester maximum for the receipt of federal subsidized student loans (150\% rule).

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

## Financial Aid Warning

The first time a student fails to meet the satisfactory academic progress requirements, the student will be sent a financial aid warning letter, which will indicate that the student is in danger of losing aid eligibility unless the student improves academically. A student on financial aid warning may continue to receive financial aid for the next payment period.

## Financial Aid Probation

The second time a student fails to meet the satisfactory academic progress requirements, the student will lose eligibility for financial aid. However, the student may petition the Committee on Satisfactory Academic Progress for 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, the student 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 for extenuating circumstances such as illness, full-time employment, significant personal difficulty, family trauma, or other special circumstances. This applies to all students (including Online Program students), and the appeal process is the same as above for all students.

## 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 meets the necessary satisfactory academic progress requirements.

## Transfer of Credits from Other Schools

When a student (including Online Program students) transfers courses to Houghton from another college, the transfer credit assessor 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 (some exceptions may apply, e.g., CCCU and special consortium arrangements).

## Change of Major

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

## Repeating Courses

See Repeating Courses policy. Also note: Students needing to repeat a course more than twice should consult the Student Financial Services Office. Repeating a course may influence a student's financial aid, athletic, or other co-curricular eligibility.

## Withdrawals and Incomplete Courses

Courses from which a student withdraws may impact the student's 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 as hours attempted. When the "I" signifying an incomplete course is changed to an actual grade, the course will be considered complete and the GPA reviewed for satisfactory academic progress purposes.
Satisfactory Academic Progress Undergraduate Federal and Houghton College Financial Aid

| Full-time <br> semesters | Minimum accrued <br> credit hours | Cumulative <br> GPA |
| :---: | :---: | :---: |
| 1 | 6 | 1.1 |
| 2 | 15 | 1.5 |
| 3 | 27 | 1.75 |
| 4 | 39 | 2.0 |
| 5 | 51 | 2.0 |
| 6 | 63 | 2.0 |
| 7 | 78 | 2.0 |
| 8 | 93 | 2.0 |
| 9 | 108 | 2.0 |
| 10 | 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 year | $70 \%$ |
| Fifth year | $70 \%$ |
| Sixth year | $80 \%$ |

## 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 in which the student previously received aid will be used to place the student at the appropriate point on the academic progress chart. Placement may be in accord with either 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 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, students must be full-time and meet the following requirements:

| Semesters of TAP received | Minimum accrued <br> credit hours | Cumulative GPA |
| :---: | :---: | :---: |
| 1 | 6 | 1.5 |
| 2 | 15 | 1.8 |
| 3 | 27 | 1.8 |
| 4 | 39 | 2.0 |
| 5 | 51 | 2.0 |
| 6 | 66 | 2.0 |
| 7 | 81 | 2.0 |
| 8 | 96 | 2.0 |
| 9 | 111 | 2.0 |

## Financial Validation

## Financial Aid Policy

For students to be financially validated to attend Houghton College each academic year, it is imperative that required paperwork and funding be secured by certain deadlines.

The first step in applying for financial aid is to complete the Free Application for Federal Student Aid (FAFSA) at https://fafsa.ed.gov. The application is available beginning October 1 of the preceding year and is expected to be submitted by February 15. For 2022-2023, the application will be available October 1, 2021, and should be completed by February 1, 2022.

The federal government selects a significant number of FAFSA applicants for a process called income verification. If a student is selected for income verification, the Student Financial Services Office will contact the student beginning in February to request pertinent documentation. Documentation is due to the office within 14 days after the initial request to ensure timely processing and issuing of the financial aid award letter. If any documentation is still missing after May 1 , there is no guarantee that the student will be financially validated for the upcoming semester.

Houghton College will match scholarships awarded to undergraduate main campus students by their local church or a Dollars for Scholars scholarship up to $\$ 750$ per year. The Church Matching Scholarship form should be submitted to Student Financial Services by May 1. Applications submitted after May 1 may not be approved for Houghton College Church Matching Funds.

Award letters from outside scholarship organizations should be submitted to Student Financial Services as soon as they are available, preferably by May 1 to be reflected on the billing statement. Please notify the office if the organization will be sending scholarship payment directly to the student rather than Houghton College.

Students borrowing Federal Subsidized and Unsubsidized Loans for the first time are required to complete Loan Entrance Counseling and the Master Promissory Note (MPN) at https://studentaid.gov/. Federal direct loans may not be listed as anticipated aid on the billing statement if these steps are not completed by July 1.

## Other Department Factors Impacting Financial Validation

Registrar's Office: Course registration should be finalized by June 1. Any changes thereafter may not be reflected on the fall billing statement. It is the student's responsibility to review the course schedule on Student Self-Service and ensure that the billing statement accurately reflects intended enrollment.

Health Center: Full-time undergraduate students who have their own health insurance must waive the Houghton College Health Insurance at www.StudentInsurance.com. This must be completed annually. To avoid the charge for Houghton College Health Insurance, the waiver process must be completed by June 15. Contact the Health Center at HealthCenter@Houghton.edu or 585.567.4840 with any questions.

Student Accounts: Students (and parents, if granted access*) may view real-time account activity and billing statements via the Student Account Center (SAC) at Houghton.afford.com. Students will receive initial login information for the SAC at their Houghton College email address. Click on the "Register" link to create a password. Do not change the email address that auto-fills. The username is the student ID with a preceding letter "P," e.g.,

P000012345@houghton.edu. Email notifications are issued each time a new electronic billing statement is posted.
*NOTE: Parents do not receive notifications of billing statements unless their students have established shared-access accounts for them. This is in compliance with the Family Educational Rights and Privacy Act.

To grant access to a parent or other authorized user, students should log in to the SAC, go to "Share Account Access/Manage Account Access/Add," and enter account information for the shared-access user as prompted. (It may be easiest to do this in person with whomever is being granted access.)

Fall bills will be issued during the first week of July and are due by the first week of August. To be financially validated, payment must be made in full. This may mean out-of-pocket payment, an approved loan application, an official payment plan through Houghton.afford.com, or a combination of any of the above.

It is the student's responsibility to ensure that the student is financially validated by the third week of August. This will guarantee that the student is approved to move to campus and begin the fall semester. Student Financial Services will notify students by email when they are officially financially validated. Students may also check their Financial Validation status in Student Self-Service under the "Finances" tab. The Fall Financial Validation document will be marked as "Received" if the student is financially validated. Students who are not financially validated should contact Student Financial Services at sfso@houghton.edu for assistance. Students may not be able to move into college housing or attend classes if they are not financially validated before arrival on campus.

For the Spring semester, bills will be issued in November and will be due the second week of December. Financial validation should be completed by the first week of January.

Mayterm and Summer courses should be selected by the last week of March for accurate billing statements to be issued in April, due the first week of May. Payment plans are not available for summer courses, so balances must be paid in full prior to the start of the term. Additional Spring loan funding may be approved for use toward these charges. Contact Student Financial Services for more information.

Students who fail to adhere to these deadlines will be subject to a $\$ 250$ late fee after the bill due date and registration cancellation for the upcoming semester.

If a student has extenuating circumstances, the student may submit a Financial Policy Appeal Form to document these circumstances and outline a detailed plan for payment. Exemptions are approved at the discretion of the Student Financial Services Office based on the documentation provided and must be requested prior to the bill due date if it becomes apparent to the student that funding will not be secured in time. An approved appeal is a onetime approval and is only applicable to the relevant semester; subsequent semesters are expected to be paid by the due date unless a new appeal is approved.

Students owing over $\$ 200$ will be placed on Financial Hold and will not be permitted to register for subsequent semesters, receive transcripts, or receive diplomas (if applicable).

Students with delinquent balances at the end of a semester may be withdrawn from the College, transferred to noncurrent status, and charged a $1.5 \%$ - or $\$ 2.00$-per-month finance charge, whichever is greater. 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 fees due to the collection agency.

## Academic Information

## General Information

## Dean of the Faculty

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

## Associate Dean of the Faculty

The Associate Dean of the Faculty supports the work of the Dean of the Faculty by providing leadership to teaching faculty in advising, assessment and evaluation, budgetary and curricular matters, and research. The Associate Dean of the Faculty also works to promote curricular and co-curricular collaboration across disciplines and to identify and cultivate distinctive campus attributes.

## Registrar's Office

The Registrar's Office answers questions concerning records, schedules, transfers, and transcripts. The Registrar's Office is located in the lower level of Fancher.

## Departments

The College academic structure is organized into 15 departments: Art; Biology; Business and Economics; Chemistry; Communication; Education; English and Writing; History, Politics, and Philosophy; Mathematics; the Greatbatch School of Music; Religion and Global Service; Sport, Recreation, and Wellness; Online; Physics, Computer Science, and Engineering; and Psychology and Criminal Justice. 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 and individuals classified as nonteaching faculty by the administration (such as professional library personnel, the Registrar, and some administrators in Student Life and on the President's Staff). Other categories of faculty include part-time, lecturers, and adjunct and interim teachers.

## Degrees Offered

Houghton College offers courses of study leading to the degrees of Master of Arts (MA), Master of Business Administration (MBA), Master of Music (MMus), Master of Science (MS), Bachelor of Arts (BA), Bachelor of Business Administration (BBA), Bachelor of Fine Arts (BFA), Bachelor of Science (BS), Bachelor of Music (BMus), Associate of Arts (AA), Associate of Science (AS), and Associate of Applied Science (AAS). Several certificate programs are also offered.

## Courses of Instruction

## Course Numbering System

- 100-level courses:
- typically taken the first year
- do not typically give major or minor credit
- 200- and 300-level courses:
- typically taken the sophomore or junior year
- required minimum level for major credit
- foundational courses for majors and minors
- build upon one or more foundational courses in the same discipline or represent advanced General Education
- 400-level courses:
- typically taken late in the curriculum
- build upon two or more lower-numbered courses in the same discipline
- generally have smaller class sizes
- seminar style, discussion-oriented, or collaborative-style pedagogy
- 500-level courses:
- reserved for graduate-level studies
- 600-level courses:
- reserved for graduate-level studies

Host Departments or Administrative Areas, Course Prefixes, and Areas of Study

| Department or Administrative Area | Prefix | Description |
| :---: | :---: | :---: |
| Department of Art | ART | art |
| Department of Biology | BIOL | biology |
|  | BIOCHM | biochemistry |
|  | ESCI | earth science |
|  | EXS | exercise science |
| Department of Business and Economics | ACCT | accounting |
|  | BADM | business administration |
|  | ECON | economics |
|  | MBA | graduate business |


| Department of Chemistry | BIOCHM | biochemistry |
| :---: | :---: | :---: |
|  | CHEM | chemistry |
| Department of Communication | COMM | communication |
| Department of Education | EDUC | education |
|  | LEDU | graduate education (literacy) |
| Department of English and Writing | ENGL | English and literature |
|  | WRIT | writing |
| Department of History, Politics, and Philosophy | HIST | history |
|  | PHIL | philosophy |
|  | POLS | political science |
|  | PPE | politics, philosophy, and economics |
| Interdisciplinary Studies | HUM | humanities |
|  | INDS | interdisciplinary studies |
|  | INTS | integrative studies |
|  | MSL | military studies and leadership |
|  | STEM | science, technology, engineering, and math |
| Department of Mathematics | MATH | mathematics |
| Greatbatch School of Music (See Graduate Bulletin for information regarding master's degree programs in music.) | GMUS | graduate music |
|  | MBCM | commercial music |
|  | MCHU | church music |
|  | MED | music education |
|  | MHS | music history |
|  | MLT | music literature |
|  | MTH | theory and composition |


|  | MUS | ensembles, instrumental and piano classes, and private lessons (each instrument has its own code) |
| :---: | :---: | :---: |
|  | PERF | performance |
|  | WSP | worship arts |
| Department of Physics, Computer Science, and Engineering | CSCl | computer science |
|  | DSCI | data science |
|  | ENGR | engineering |
|  | PHYS | physics |
| Department of Psychology and Criminal Justice | CRJ | criminal justice |
|  | PSY | psychology |
|  | SOC | sociology |
| Department of Religion and Global Service | ANTH | anthropology |
|  | BIBL | Bible |
|  | CRFM | Christian formation |
|  | ENST | environmental studies |
|  | FREN | French |
|  | GERM | German |
|  | GREK | Greek |
|  | HEBR | Hebrew |
|  | IDEV | international development |
|  | INCL | intercultural studies |
|  | LING | linguistics |
|  | MIN | ministry |
|  | MISS | missions |


|  | REL | religion |
| :---: | :---: | :---: |
| Department of Sport, <br> Recreation, and Wellness | SPAN | Spanish |
|  | EQST | PHED |
|  | THEL | equestrian studies |
|  | REC | physical education |
| Student Life | SRWM | sport, recreation, and wellness management |
|  | CLLS | college life and leadership studies |

Academic Note:
A student's courses normally fall into five or six categories:

1. General Education
2. pre/corequisites or additional requirements
3. academic major
4. electives
5. minor
6. Concentrations may be required for some majors.

When necessary, students should ask their academic advisors about individual program expectations.

## Policies

Graduate Transfer Student Admission and Transfer Credit Guidelines
Students looking to transfer into the graduate program in music should contact the Greatbatch School of Music for more information.

Students looking to transfer into other graduate programs should reference the Graduate Student Handbook.

## Undergraduate Transfer Student Admission

See Transfer Admission Information and Undergraduate Transfer Credit Guidelines for more information.

## Religious Observances

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

## Undergraduate Semester Schedule Load-Limit Policy

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

1. A student admitted under "light-load" provision is not permitted to take more than 14 credit hours in a semester. (Note: Highlander Adventure [2 credits] will appear on the fall transcript but does not count against load limits.) Additionally, if the student is required to take CLLS 102: College Study Methods (1 credit) and CLLS 103: College Study Methods Lab ( 1 credit), the student may be permitted to enroll in a maximum of 15 credits in their first semester.
2. A student on academic probation is not permitted to take more than 15 hours in a semester. Any other student in good standing may take up to 17 hours. However, students on academic guidance who wish to take 16 or 17 hours must have the explicit approval of their advisors.
3. To take 18 credit hours (a "heavy load"), students must have special permission from their advisors (see form on Registrar's Office website).
4. To take 19 credit hours or more, students must petition the Academic Petitions Committee for permission. This academic petition requires advisor approval.
5. Special circumstances may be addressed through academic petition. (Academic petition and load-limit forms are available on the Registrar's Office website.)
Once a student selects courses for the semester, this selection is expected to be permanent. In the event that a student needs to add or drop a course, the student should complete the add/drop online through Student Self-Service or the form located on the Registrar's Office webpage. This form requires the advisor's and instructor's permission. The student will receive a confirmation email from the Registrar's Office when the schedule change has been finalized.

## Add/Drop Permission

Courses (including independent studies and tutorials) may not be added for credit after the first academic week. Courses from which a student withdraws during the 2nd through 10th weeks will be recorded with a grade of "W." Courses discontinued within the last four weeks of the semester are assigned a grade of "F." Half-semester courses have different dates for adding, dropping, and withdrawing. Check the calendar of Important Dates on the Registrar's Office website for an accurate listing. Students are not officially added/dropped/withdrawn from a course until they have completed the add/drop or course withdrawal form online and have received a confirmation email from the Registrar's Office. Students who wish to withdraw from a music ensemble must first consult with the director of the ensemble at the Greatbatch School of Music. (See the Registrar's Office webpage for online forms; see Mayterm policy for additional important information.)

## Classroom Attendance

Students are expected to attend classes. Each instructor will state expectations in the course syllabus, which is to be distributed at the start of each semester. If an instructor determines a student to be failing due to absences, the instructor may request that the Registrar's Office withdraw the student from the course.

## Policy on Awarding Credit Hours through Coursework

Academic credit is granted by Houghton College through coursework when a student is assessed by the instructor of record as having performed academically at a passing level in the course. Performance evaluation is guided by the grading policies of the College and when one of the following can also be documented:

1. For each credit hour, the student receives at least 15 hours (each defined as 50 minutes) of instruction. For this purpose, instruction is defined as including live or prerecorded lectures/presentations and all directly synchronously supervised or observed time on task (whether face to face or at a distance). For each credit hour, the student also completes course-related work outside of instructional time requiring at least 30 hours of time on task for a typical student.
2. For each credit hour, the student is expected to complete independent course-related work requiring at least 45 hours of time on task (as defined above).
3. For each credit hour, the student is expected to complete course-related work and receive instruction (each as defined above) in any combination that sums to at least 45 hours.

Minimum expectations for time on task for various common learning activities (determined through a synthesis of existing research and a review of policies at other institutions) include:

| Learning activity | Additional comments | Typical minimum time on task |
| :---: | :---: | :---: |
| Assigned reading | Reading rate for learning | 3 minutes per page (approx. 100 <br> words per minute) |
| Journal/personal and <br> science lab report writing |  | 0.5 hours per page of writing <br> (approximately 250 words) |
| Participation in online | Asynchronous via text, <br> audio, and/or video <br> (Synchronous time would <br> be counted as <br> instructional.) | 1 hour for 5 postings (original or in <br> response to other posters), each <br> consisting of at least 5 sentences or <br> 30 seconds of recorded material |
| Researched paper or <br> presentation (live or <br> recorded, individual or <br> group): research <br> component | Supervised time is <br> counted as instructional. | 1.5 hours per finished page or per 30 <br> seconds of live/recorded presentation |
| Researched paper: <br> writing/editing component | Supervised time is <br> counted as instructional. | 1.5 hours per finished page |
| Researched presentation <br> (live or recorded, individual | Script writing, <br> PowerPoint creation, | 2 hours per 30 seconds of <br> live/recorded presentation |


| or group): preparation <br> component | audio/video recording, <br> editing, and related tasks |  |
| :---: | :---: | :---: |
| Subject-specific learning <br> activities that clearly fall <br> outside the categories <br> above | See paragraph below | Designated in syllabi based on <br> disciplinary standards and <br> departmental/area agreement |

For a number of learning activities, such as audio or video listening/viewing or conversational practice for language acquisition, time on task is set by the length of the assigned material itself. For active learning situations, such as field experiences and internships, unsupervised time on task is normally dictated by context and must be documented in syllabi. Moreover, because specific assignments involving research, writing, creative production, or skill development may vary significantly depending on subject matter and difficulty level, instructors may also provide charts similar to the one above in individual syllabi designating the expected time on task for each assignment. Any such designation should demonstrate conformity to accepted practice in the field of study and should be applied consistently within the department or academic area. For example, for individual studio instruction in music at Houghton College, hours of academic credit are granted according to the following formulas (based on National Association of Schools of Music norms):

| Credit hours | Individual studio <br> instruction hours | Student practice hours outside of <br> lesson time |
| :---: | :---: | :---: |
| 1 | 7 | 42 |
| 2 | 7 | 84 |
| 3 | 14 | 126 |
| 4 | 14 | 168 |
| 5 | 21 | 210 |

## Audit

Courses may be audited with permission from the professor. This involves enrolling in and attending the course 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 Registrar's Office.

## Dual-counting

Dual-counting addresses the situation in which a single course satisfies requirements in more than one major or minor subject.

Undergraduate: A student must have a minimum of 24 distinct credits in each major and a minimum of 12 distinct credits in each minor and concentration. Credits beyond these minimum distinct credits may be dual-counted as permitted by individual major/minor requirementsthat 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 credits 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 dual-counting restrictions described above do not apply to courses that fulfill both General Education requirements and the requirements of a major, minor, or concentration. General Education courses may be counted toward a major, minor, or concentration without limitation.

Graduate: At the graduate level, a student must have a minimum of 12 distinct credits in each major area. Credits in a major area beyond these minimum distinct credits may be dual-counted as elective credits.

## Final Exam Policy

If a student believes the scheduling of too many exams in one day poses a problem, the student may appeal to the Academic Dean's Office. Written (email is acceptable) approval by the faculty member being asked to move an exam should be forwarded to the Academic Dean's Office and copied to the relevant department chair(s).

## Grading System

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

| Grade | Quality Points |  |  |
| :--- | :--- | :--- | :--- |
| A = Excellent |  | $A=4.00$ | $A-=3.67$ |
| $B=$ Good | $B+=3.33$ | $B=3.00$ | $B-=2.67$ |
| C = Average | $C+=2.33$ | $C=2.00$ | $C-=1.67$ |
| D = Passing | $D+=1.33$ | $D=1.00$ | $D-=0.67$ |
| F = Below minimum standards |  | F $=0$ |  |

- W-Withdrawn. A grade applicable to a course from which a student withdraws in the 2nd through 10th 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. The faculty member will send the I grade to the Registrar's Office with a copy to the department chair. An incomplete grade is to be made up within five weeks of the close of the semester (the last day of final exams). At the five-week mark, the professor will submit a grade based on work completed by that time.
- P-Satisfactory work done (equivalent to a regular grade of $\mathbf{D}$ 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 GPA.
- NR-Not Recorded grade. Used only for courses extending beyond one semester. The faculty member will send the NR grade to the Registrar's Office with a copy to the department chair. The final grade, based on work completed to that point, is to be submitted within one calendar year from the end of the applicable semester.
Midterm grade policy: Midterm grades are provided for all first-year students and any upperclass students with a C- or lower.


## Satisfactory/D/Fail Coursework

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 4 hours per semester, but no more than 12 hours cumulatively, of Satisfactory/D/Fail (S/D/F) coursework. Work equivalent to a letter grade of C - or better is required to earn a grade of "Satisfactory" ("S"). When a student is taking the course for $S / D / F$, Ds and Fs are included in the GPA, but grades of "S" are not. 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; for their pre- and corequisites; or for General Education 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 as follows:

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 10 working days after meeting with the instructor. If agreement is reached, a grade change request will be 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 Academic Dean's Office in writing within 10 working days of the previous step. The Associate Dean of the Faculty (or the Academic Dean's designee) shall investigate carefully and render a decision, which shall be final. If the decision is to reconsider the grade, the following will occur:

- The Associate Dean shall, within 10 days, form a panel of uninvolved, tenured faculty from the instructor's department. (From a designated pool, the Associate Dean, the instructor, and the student will each select one member of the panel.)
- The panel will review all appropriate material and determine the final grade within 30 days. The panel may retain the original grade or assign a new grade (which may be higher or lower than the grade in question) and will so inform the Registrar's Office.


## Grade Point Average (also known as Quality 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) and then multiplied by the credit hours for the course. The grade/quality points for all courses taken are totaled and then divided by the total number of letter grade hours carried (see example below).

| Course | Credit Hours | Grade in <br> Course | Quality Point <br> Value | Quality Points |
| :--- | :--- | :--- | :--- | :--- |
| Biblical Literature | 4 | C | 2.00 | 8.00 |


| Western Civilization | 2 | B | 3.00 | 6.00 |
| :--- | :--- | :--- | :--- | :--- |
| Literary Studies | 4 | D + | 1.33 | 5.32 |
| Intro to Psychology | 4 | B+ | 3.33 | 13.32 |
| Spanish Level II | 4 | A- | 3.67 | 14.68 |
| Totals | 18 |  |  | 47.32 |

$$
\frac{\text { Quality Points }}{\text { Total Credits }}=\frac{47.32}{18}=\text { GPA } 2.628
$$

Courses taken off campus under Houghton College Affiliated Opportunities are considered work taken at Houghton College. To determine whether or not grades will be recorded, please see the Tabular Listing of Off-Campus Opportunities. For all other satisfactory off-campus coursework, regular letter grades are not recorded on the transcript.

## Repeating Courses

Students have the option to repeat 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 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 the following:

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

Students in good standing must have passed at least 24 credit hours over the last two semesters (with equivalent conversion of quarter hours into semester hours if necessary) of school (including Mayterm and summer work following those semesters) with a cumulative GPA of 2.0, be regularly attending classes, and not be on disciplinary probation or have unaddressed chapel attendance deficiencies.

Transfer students in their first semester at Houghton will be eligible if they would have been academically and athletically eligible at the previous institution (had they remained there), have a cumulative 2.0 GPA based on previous work, and are enrolled in at least 12 hours for the first semester.

Transfer students entering their second semester at Houghton will continue to be eligible if they have a cumulative GPA of at least 2.0 (at Houghton), are not on disciplinary probation, have no unaddressed chapel attendance deficiencies, and passed either a) at least 12 hours in the first semester at Houghton or b) sufficient hours during the first semester at Houghton to be meeting the 24-hour rule above.

Transfer students heading into subsequent semesters will continue to be eligible if they have a cumulative GPA of 2.0 (at Houghton), have passed at least 24 hours in the last two semesters (including Mayterm and summer work following those semesters), are not on disciplinary probation, and have no unaddressed chapel attendance deficiencies.
*Note: 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 Guide for further detailed information on both intercollegiate and intramural participation.)

Other notes: This policy applies to full-time (minimum of 12 hours) and not to part-time students. Student membership (as opposed to leadership) in other student clubs is exempted from this policy except as outlined in the bullets above. Some campus leadership positions require a cumulative GPA higher 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 Registrar's Office and/or 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.

## Hybrid and Online Course Policy

Residential and nonresidential main campus students may take up to two Houghton Online courses during each of the fall and spring semesters. Students may petition for exemption from the two-limit rule in exceptional circumstances. All exemptions must be approved by the chair of the relevant department, the Director of Online Programs, and the Registrar.
Residency requirements remain in effect for residential students. Financial aid will be adjusted for students dropping from full-time to less than full-time status.

Any switch between online and main campus programs will become effective at the start of the subsequent semester.

Houghton College students will be billed according to their registered program, not the location/delivery method of the course(s) chosen. Students should contact the Student Financial Services Office to discuss ramifications of dropping/withdrawing from a course. Exceptions may be granted to former students who have not matriculated in a main campus program for one year or more to complete their final 18-24 credit hours via online program courses. Note: This policy excludes Summer Main Campus Online courses, which are offered at a separate rate. It is not necessary to petition/switch programs when taking multiple summer online courses.

## 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 our work and relationships.

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

1. Obtaining aid or information without giving due recognition to the sources of such aid or information. 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 Internet and claiming such work as one's own.
2. 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 selling one's work.
Faculty members are required to report all offenses to the Associate Dean of the Faculty, 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, but nothing higher than the failing grade 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 discretion of the Associate Dean of the Faculty, 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 Students. Unauthorized use of college computing equipment, facilities, or computer software 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. At its best, advising is a dynamic relationship between student and professor that encourages students to cultivate thinking 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' interests. Students are encouraged to consult their academic advisor at least once each semester and any time they have questions that the advisor can address or for which the advisor can provide appropriate resources. When a student selects a new major, the
department chair of the new major will assign an appropriate advisor. Students must obtain their academic advisor's approval to select courses.

Although advisors provide guidance, it is the student's responsibility to understand academic policies and complete all requirements for a degree. Contact the Registrar's Office or the Academic Support and Accessibility Services Office with any questions.

## Undergraduate Classification

A student must earn a minimum of 28 semester hours of accumulated credits to be considered a sophomore, a minimum of 60 hours to be considered a junior, and a minimum of 90 hours to be considered a senior. The student must also have maintained a GPA of 2.0 for unconditional classification in any class.

## Academic Guidance and Probation

Each incoming undergraduate student is assigned a faculty advisor who is responsible for academic advising during the first year. Students who receive a semester GPA below 2.0 but are not placed on academic probation are placed on academic guidance and encouraged to work closely with their advisors.
An undergraduate student whose cumulative GPA 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. In this event, the student is required to meet with an advisor to develop a plan for academic improvement. Such a student is limited to 15 credit hours in the following semester. (Hours earned include transfer hours.)

- If the total credit hours are less than 15 , the GPA must be at least 1.0.
- If the total credit hours are at least 15 but less than 27 , the GPA must be at least 1.5.
- If the total credit hours are at least 27 but less than 39 , the GPA must be at least 1.75.
- If the total credit hours are at least 39, the GPA must be at least 2.0.
- Two semesters in a row with a semester GPA below 2.0 also result 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 Academic Dean.

## Academic Dismissal

An undergraduate student is academically dismissed if the student meets the criteria for probation two semesters in a row.

Any student dismissed 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 at Houghton.
A student dismissed from the student body for the above reason and readmitted by the Admission Committee is placed on academic probation and must maintain a GPA of 2.0 or higher for each semester thereafter to remain in college.

## Scholastic Honors

President's List - Recognizes undergraduate students who complete a minimum of 12 hours with a 4.0 GPA for the semester*

Dean's Honor List - Recognizes undergraduate students who complete a minimum of 12 hours with a semester GPA of 3.75-3.999*

Dean's List - Recognizes undergraduate students who complete a minimum of 12 hours with a semester GPA of 3.5-3.749*
*no Incompletes or Fs allowed

## Graduation Honors

Latin honors are awarded for bachelor-level degrees only. The faculty will select for Latin honors undergraduate students of outstanding scholarship. Beginning with Commencement of 2010, a student must have a cumulative GPA of at least 3.5 for the recognition of cum laude, at least 3.7 for magna cum laude, and at least 3.9 for summa cum laude. Students transferring from other colleges must complete $\mathbf{6 2}$ hours at Houghton College to be eligible for Latin honors. Latin honors as published in the May Commencement bulletin are based on the cumulative GPA at the end of the fall semester prior to Commencement, including the valedictorian and salutatorian. To be eligible to be valedictorian or salutatorian, a student must be a main campus student, full-time in the spring, and a May graduate and must have earned a minimum of 90 Houghton College credits.

## Honors Project

Outstanding undergraduate students may be candidates for honors study projects and Commencement citations in their major fields. To be declared eligible to undertake this special study, a student must have a cumulative GPA of at least 3.25 and a major GPA of at least 3.4 (courses numbered 200 and above). A proposal must be prepared and submitted for approval one year prior to graduation. Guidelines and policy details can be found on the Registrar's Office webpage.

## Independent Study

An 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 an 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 at least 2.75 .

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 Registrar's Office by April 1.

A student may take an independent study for variable credit (1 to 4 hours maximum during a semester) up to a maximum of 12 semester hours toward graduation. Any faculty member may supervise the independent study project, but it 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 student with the field to be studied, an independent study may not be used to satisfy General Education requirements.

Students wanting to use an independent study to become full-time must submit their independent study documentation 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 the add/drop period (please see Important Dates Calendar).

## Internships

Many majors at Houghton College recognize a field placement experience as an integral component of professional preparation. Internships are considered 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. Internships require approval by the supervising academic department and extensive involvement by the student. Supervision is a responsibility shared between the academic department and the selected field agency. Students must be enrolled in their internships prior to beginning the experience. They should enroll in the term (fall, spring, Mayterm, or summer) in which 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.

## Tutorial Study

Tutorial work is for the benefit of the student who needs a course that is currently unavailablefor example, one not scheduled for the semester when it is essential for graduation. 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 is required by the advisor, instructor, and department chair with approval from the Academic Dean's Office. The forms to be used for a proposed tutorial are available on the Registrar's Office website.

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

## Mayterm

Mayterm is the first session of the Summer term. It begins on the Tuesday immediately following Commencement. 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. and abroad is a feature of this period. See the Financial Information section for tuition information. Also see the Registrar's Office Mayterm webpage for more information.

Students entering Houghton in Fall 2021 and beyond who wish to take a Mayterm course will be billed the appropriate tuition for any course they might elect to take. Exceptions include INTS 155: Science Honors II, EDUC 240: Teaching in Urban America (when required of education and music education majors), and preapproved summer internships. Students participating in these specific courses will not be charged additional tuition in May as long as the Mayterm hours do not exceed the 36 credit hour allowance for the academic year. Students in Science Honors, EDUC 240, and preapproved summer internships should work with their advisors to reserve enough credits during the preceding fall and spring semesters so that they can include the Mayterm credits within the 36 allotted credits for the year. Current policies relative to summer internships continue to apply.

## 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. The 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 may also qualify for the senior-in-absentia privilege by transferring two years of nurse's training for the Houghton degree.

Preliminary application (see Registrar's Office webpage) for the senior-in-absentia privilege must be made to the Academic Dean's Office in the spring of the sophomore year. Students should notify the Registrar's Office 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 an 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 submit a Withdraw from College form (found on the Registrar's Office webpage) and/or set up a meeting with the Academic Support and Accessibility Services Office. The student will be contacted and given instruction on next steps, including securing signatures from the Academic Support and Accessibility Services Office, the student's advisor, Student Financial Services, and the Student Life Office. The form must be properly completed and filed with the Academic Support and Accessibility Services Office (August-May) or the Office of Student Life (June and July) before the student leaves campus. Withdrawal from college without accomplishing the above procedure will result in forfeiture of the right to an honorable dismissal. No refunds (if applicable) will be made by the Student Financial Services Office until the Registrar's 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 complete the withdrawal process found above 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.

Medical Leave
See Medical Leave information under Student Life Information.

## Academic Support and Accessibility Services

Houghton College offers learning support for students through the Academic Support and Accessibility Services Office. Any student may come to the Academic Support and Accessibility Services Office 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 Associate Director of Academic Support and Accessibility Services during the admission 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 Associate Director of Academic Support and Accessibility Services (585.567.9239).

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

## Academic Petitions

Each student at Houghton may petition 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 request to take more than 18 credit hours in a semester.

Actions not requiring petition action include permission to take 18 hours (use Heavy Academic Load Instructions), permission to increase credits in a variable-credit course (contact Registrar's Office), and permission to attend an off-campus study opportunity (use specific application).

Further information is available in the Registrar's Office and on their webpage.

## Requirements

Graduation
A student must complete at least one major. Candidates for BA, BBA, BFA, 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 the student is completing the Sport, Recreation, and Wellness Management major with an Equestrian emphasis or an Equestrian minor. No more than 8 hours of applied music may count toward graduation for students not majoring or minoring in Music. The minimum GPA for graduation is 2.0 . Grades in major, minor, and concentration courses must be $C$ - or higher. The graduation requirements for Music Graduate degrees can be found on the Music Graduate webpage. The graduation requirements for all other graduate programs can be found in the Graduate Student Handbook.

## Graduation/Conferral Dates

Houghton College has three official graduation/conferral dates:

- May Commencement
- Last Friday in August
- Last Friday in December


## Residency Requirements

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

## Second Degree

A student cannot earn a BA and a BS simultaneously. Students completing two majors, one leading to a BS and the other to a BA, must choose which degree they will receive and will then graduate 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 a BMus or BFA and either a BA or a BS, including the relevant General Education 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 degree requirements 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/discipline, e.g., a BS earned subsequent to a BA in a different discipline. The cumulative GPA 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, students may select a subsequent catalog in effect during their college career. During the academic years from 2017-18 to 2020-21 in the transition to the new General Education curriculum, students may choose major/minor requirements from a year that is different from their General Education requirements. Occasionally, changes are made that include more precise implementation guidelines. If the student believes a major is unfairly or unreasonably modified, the student should consult the Registrar's Office.

## Liberal Arts Requirements

Most courses at Houghton College are liberal arts courses designed to either contribute to General Education or enhance 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, or ministry.

The State of New York and Houghton College require the following minimum percentages of a degree to be classified as liberal arts:

- AA must be $3 / 4$ liberal arts.
- AAS must be $1 / 3$ liberal arts.
- AS must be $1 / 2$ liberal arts.
- BA must be $3 / 4$ liberal arts.
- $B S$ must be $1 / 2$ liberal arts.
- BBA, BFA, and BMus must be $1 / 4$ liberal arts.
- Graduate degrees do not have liberal arts requirements.


## Note for Students with Multiple Majors

Per New York State regulations, liberal arts minimum percentages are attached to programs/majors. Students with more than one program/major must meet the liberal arts minimum percentage of the degree with a higher requirement. For example, if a student has declared a BA-only program/major, the student must meet the BA degree liberal arts minimum percentage ( 93 credits) even if it is the secondary program/major and the student is receiving a BS degree for the primary program/major.

## Master of Arts in Music and Master of Music (MA and MMus)

A candidate for a master's degree in Music chooses a curriculum from the listings found on the Greatbatch School of Music webpage.

Master of Science in Education (MSEd)
A candidate for a master's degree in Education chooses a certification track from the listings found on the Houghton College Department of Education webpage.

## Master of Business Administration (MBA)

A candidate for a master's degree in Business Administration may choose an optional area of focus from the listings found on the Department of Business webpage.

## Bachelor of Arts (BA)

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

## Bachelor of Science (BS)

A candidate for the BS degree selects a major, and that choice must be approved by the chair of that department. The BS degree requires a minimum of 62 liberal arts credits and a total of 124 hours.

## Bachelor of Business Administration (BBA)

A candidate for the BBA degree selects a major, and that choice must be approved by the chair of that department. The BBA degree requires a minimum of 31 liberal arts credits and a total of 124 hours.

## Bachelor of Fine Arts (BFA)

A candidate for the BFA degree selects a major, and that choice must be approved by the chair of that department. The BFA degree requires a minimum of 31 liberal arts credits and a total of 124 hours.

## Bachelor of Music (BMus)

A candidate for the BMus degree chooses a curriculum from the listings found under Greatbatch School of Music in the Academic section. The BMus degree requires a minimum of 32 liberal arts credits and a total of 128 hours.

Associate of Arts (AA)
Students seeking to complete the AA degree must earn a cumulative GPA of 2.0 or higher. At least 30 hours, including at least 18 of the last 24, must be earned at Houghton College. The specific qualifications for earning the AA degree are outlined below.

In addition to the general AA degree requirements above, students must complete the following:

1. A total of 62 semester hours, 47 of which must be liberal arts
2. 40 hours of General Education courses

- Required courses: In each category, students must earn at least the minimum number of credits and may count up to the maximum towards the 40 hours of required General Education credits.
- 6-9 hours of Biblical and Theological Studies
- 6-9 hours of Humanities
- 3-6 hours of Changing World
- 3-6 hours of Social Science
- 3-6 hours of Writing
- 2-4 hours of Art or Music
- 2-4 hours of Math
- 2-4 hours of Natural Science
- 0-1 hour of Wellness
- The remaining hours may be used for electives, an area of focus or a minor.


## Associate of Applied Science (AAS)

The Christian Ministries curriculum is a two-year program leading to an AAS degree. The course of study requires a minimum of 60 hours, 22 of which must be liberal arts. The curriculum consists of 24 hours in General Education requirements and 36 hours in required Bible, theology, and ministry courses. Students seeking to complete the AAS degree must earn a cumulative GPA of 2.0 or higher. At least 30 hours, including at least 18 of the last 24 , must be earned at Houghton College.

## Associate of Science (AS)

Students seeking to complete the AS degree must earn a cumulative GPA of 2.0 or higher. At least 30 hours, including at least 18 of the last 24 , must be earned at Houghton College.
The AS degree requires a minimum of 31 liberal arts credits and a total of 62 hours. The curriculum consists of 32 hours in General Education requirements and 30 hours in a focus area.

## Majors

Each student should select one major area for specialized study by the time the student earns 60 hours. Houghton College grants degrees in the following areas.

| Department | Degree | HEGIS^ | CIP Code* |
| :---: | :---: | :---: | :---: |
| Department of Art |  |  |  |
| Applied Design and Visual Communication | BFA | 1002 | 50.0401 |
| Studio Art | BA, BFA, BS | 1002 | 50.0701 |
| Department of Biology |  |  |  |
| Biochemistry | BA, BS | 0414 | 26.0202 |
| Biology | BA, BS | 0401 | 26.0101 |


| Environmental Science | BA, BS | 0420 | 03.0104 |
| :---: | :---: | :---: | :---: |
| Exercise Science | BS | 1299.30 | 31.0505 |
| Department of Business and Economics |  |  |  |
| Accounting | BS | 0502 | 52.0301 |
| Business | AS | 5001 | 52.0101 |
| Business Administration | BS | 0506 | 52.0201 |
| Human Resources Management | BBA, BS | 0516 | 52.1001 |
| Integrated Marketing Communication | BBA, BS | 0509 | 52.1401 |
| Leadership Development | BBA, BS | 0506 | 52.1005 |
| Organizational Management | BBA, BS | 0515 | 52.0201 |
| Business Administration (MBA; see Dept. of Online Studies) |  |  |  |
| Department of Chemistry |  |  |  |
| Biochemistry | BA, BS | 0414 | 26.0202 |
| Chemistry | BA, BS | 1905 | 40.0501 |
| Department of Communication |  |  |  |
| Communication | BA, BS | 0601 | 09.0101 |
| Department of Education |  |  |  |
| Adolescence Education |  |  |  |
| Biology | BA | 0401.01 | 26.0101 |
| Chemistry | BA | 1905.01 | 40.0501 |
| English | BA | 1501.01 | 23.0101 |
| Mathematics | BA | 1701.01 | 27.0101 |
| Physics | BA | 1902.01 | 40.0801 |
| Social Studies | BA | 2201.01 | 54.0101 |
| Inclusive Adolescence Education |  |  |  |
| Biology | BA | 0803 | 26.0101 |
| Chemistry | BA | 0803 | 40.0501 |
| English | BA | 0803 | 23.0101 |
| Mathematics | BA | 0803 | 27.0101 |
| Physics | BA | 0803 | 40.0801 |
| Social Studies | BA | 0803 | 54.0101 |
| Inclusive Adolescence Education General | BA | 0803 | 13.1205 |
| Inclusive Childhood Education | BS | 0802 | 13.1202 |
| Education - Literacy (MSEd; see Dept of Online Studies) |  |  |  |
| Department of English and Writing |  |  |  |


| English | BA | 1501 | 23.0101 |
| :---: | :---: | :---: | :---: |
| Writing | BA, BS | 1507 | 23.1301 |
| Department of History, Politics, and Philosophy |  |  |  |
| History | BA | 2205 | 54.0101 |
| Philosophy | BA | 1509 | 38.0101 |
| Political Science | BA | 2207 | 45.1001 |
| Politics, Philosophy, and Economics | BA | 2207 | 30.5101 |
| Department of Mathematics |  |  |  |
| Mathematics | BA | 1701 | 27.0101 |
| Greatbatch School of Music (See Graduate Bulletin for information regarding master's degree programs in music.) |  |  |  |
| Music | BA, MA | $\begin{gathered} 1004 \\ 1005 \end{gathered}$ | 50.0901 |
| Composition | BMus, MMus | 1004.10 | 50.0904 |
| Music Education | BMus | 0832 | 13.1312 |
| Music Industry | BS | 1099 | 50.0999 |
| Music with Non-music Elective Studies | BMus | 1004 | 50.0999 |
| Performance: Brass Instruments | BMus, MMus | 1004 | 50.0903 |
| Performance: Organ | BMus, MMus | 1004 | 50.0903 |
| Performance: Percussion Instruments | BMus, MMus | 1004 | 50.0903 |
| Performance: Piano | BMus, MMus | 1004 | 50.0903 |
| Performance: Stringed Instruments | BMus, MMus | 1004 | 50.0903 |
| Performance: Voice | BMus, MMus | 1004 | 50.0903 |
| Performance: Woodwind Instruments | BMus, MMus | 1004 | 50.0903 |
| Collaborative Performance | MMus | 1004 | 50.0999 |
| Conducting | MMus | 1004 | 50.0906 |
| Performance | BMus | 1004 | 50.0903 |
| Department of Online Studies |  |  |  |
| Business | AS | 0501 | 52.0101 |
| Business Administration | MBA | 0506 | 52.0201 |
| Christian Ministries (see Dept. of Rel. \& Global Service) | AAS | 5502 | 39.0601 |
| Criminal Justice | AS, BA | 2105 | 43.0104 |
| Education - Literacy | MSEd | 0830 | 13.1315 |
| Human Resources Management | BBA, BS | 0516 | 52.1001 |
| Integrated Marketing Communication | BBA, BS | 0509 | 52.1401 |


| Leadership Development | BBA, BS | 0506 | 52.1005 |
| :---: | :---: | :---: | :---: |
| Organizational Management | BBA, BS | $\begin{aligned} & 0505, \\ & 0515 \end{aligned}$ | 52.0201 |
| Psychology | AS, BA, BS | 2001 | 42.0101 |
| Department of Physics, Computer Science, and Engineering |  |  |  |
| Applied Physics | BS | 1999.20 | 40.0801 |
| Computer Science | BS | 0701 | 11.0101 |
| Data Science | BA, BS | 0702 | 11.0401 |
| Electrical Engineering | BS | 0909 | 14.1001 |
| Physics | BA, BS | 1902 | 40.0801 |
| Department of Psychology and Criminal Justice |  |  |  |
| Criminal Justice | AS, BA | 2105 | 43.0104 |
| Psychology | AS, BA, BS | 2001 | 42.0101 |
| Department of Religion and Global Service |  |  |  |
| Bible | BA, BS | 1510 | 39.0201 |
| Christian Ministries | AAS | 5502 | 39.0601 |
| Environmental Studies | BA | 0420 | 03.0103 |
| Intercultural Studies | BA | 2210 | 05.0122 |
| International Development | BA | 2210 | 45.0604 |
| Theology | BA, BS | 2399 | 39.0601 |
| Department of Sport, Recreation, and Wellness |  |  |  |
| Sport, Recreation, and Wellness Management | BS | 0599 | 31.0101 |
| Interdisciplinary/Special Studies |  |  |  |
| Humanities | BA | 4903 | 24.0103 |
| Interdisciplinary Studies | BA, BS | 4999 | 30.0000 |
| Liberal Arts | AA | 5649 | 24.0101 |

${ }^{\wedge}$ HEGIS - Higher Education General Information Survey
*CIP - Classification of Instructional Programs
Academic Work Categories
Academic work at Houghton is organized into four categories: General Education, major, minor, and elective. 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. Some majors require a concentration.
General Education Requirements for BA, BFA, BMus, and BS Degrees
In keeping with the primary objective of the College-to provide a liberal arts education within the framework of the Christian faith-each candidate for a BA, BFA, BMus, or BS degree is required to take a stipulated package of General Education courses unless given graduation
credit and/or advanced standing based on 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.) More details can be found in the General Education Department section. Each student must also meet a required number of liberal arts credits for the student's specific degree ( 93 for the BA, 62 for the BS, 32 for the BMus, and 31 for the BBA and BFA).

## Majors/Minors/Concentrations

In the major, the undergraduate 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 half of a student's major must be completed th Houghton. A minor consists of 12 or more hours of work acceptable for major credit unless otherwise stated. With the exception of the concentrations within the Inclusive Childhood Education major, which must be 30 credits or more, most concentrations at Houghton are 16 credits or more. No grades below C- count toward the major, minor, or concentration. Students majoring in a BMus 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 220, 227, 325, 327) and one D-level grade in the music history and literature sequence (MHS 230, 280). Graduate music students should consult the Greatbatch School of Music Graduate Bulletin. All Education majors must earn course grades of $C$ or higher in the major, content major, and/or concentration/corequisite courses.

## Self-Designed Minor

This option is available and encouraged for undergraduate students wishing to specialize in an area not covered by an existing minor, such as creative or interdisciplinary fields. It consists of at least 12 hours of courses level 200 or above and will be proposed by the student in consultation with the faculty advisor and approved by relevant department chair(s). Approval for such minors will include consideration of how the choice of courses supports the stated academic goals of the student.

## Academic Programs by Department or Administrative Area

## Art

Ryann Cooley, Chair | http://www.houghton.edu/art/ | 585.567.9401 | art@houghton.edu

The Art department offers study opportunities 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 professional art production, teaching, and graduate studies.

The student's experience is diversified through visiting artists, on-campus gallery exhibits, and off-campus trips that give students access to cultural resources in cities throughout the northeast. The Art department also offers Mayterm art history travel experiences every other spring in cities such as Paris, London, Munich, Berlin, Istanbul, Vienna, Budapest, Florence, Rome, Lisbon, and Madrid.

## Majors <br> Applied Design and Visual Communication <br> BA in Studio Art <br> BFA in Studio Art <br> BS in Studio Art

## Minor

Art
Art Business

Pre-Professional
Pre-Art Therapy

Faculty
Ryann Cooley
Madison T. Murphy

Aaron Harrison
Theodore J. Murphy

David M. Huth
John M. Rhett

## Majors

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Applied Design and Visual Communication Major (BFA)
BFA (69-71 hours)
The BFA in Applied Design and Visual Communication is an art and communication partnership. It requires 69-71 hours in art and communication.
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Studio Foundation Courses (should be taken in the first year)

## Credits

| ART 131 Intro to Visual Arts | 2 |
| :--- | :--- |
| ART 241 Two-Dimensional Design | 2 |
| ART 242 Three-Dimensional Design | 2 |


| COMM 115 Foundations of Digital Communication | 2 |
| :---: | :---: |
| COMM 214 Intro to Mass Media | 4 |
| Total | 12 |
| Art History Courses | Credits |
| Choose two courses from the following; at least one must be ART 231, 232, or 237. |  |
| ART 231 Ancient Art History | 4 |
| ART 232 Renaissance and Baroque Art History | 4 |
| ART 234 Art and Architecture in Europe | 4 |
| ART 236 Asian Art History | 4 |
| ART 237 Modern and Contemporary Western Art History | 4 |
| ART 314 Art and History of Film | 4 |
| Total | 8 |
| Required Art and Communication Courses | Credits |
| ART 228 Digital Video I | 4 |
| ART 245 Graphic Design I | 4 |
| ART 283 Intro to Digital Photography | 4 |
| ART 284 Intro to Digital Imaging | 4 |
| ART 345 Graphic Design II | 4 |
| COMM 224 Motion Media Design and Animation or COMM 232 Intro to Web Communication | 4 |
| Total | 24 |
| ART and COMM Studio Courses | Credits |
| Select courses from the following to reach a minimum of 19 hours: |  |
| ART 382 Advanced Topics in Photography | 4 |
| ART 384 Digital Imaging II | 4 |
| COMM 207 Intro to Pro Tools | 3 |
| COMM 328 Digital Video II | 4 |
| ART 263 Typography and Letterpress Printing | 4 |
| ART 295 ST: Illustration | 4 |


| ART 380 Lighting for the Still and Moving Image | 4 |
| :---: | :---: |
| ART 479 Professional Practices in Photography | 4 |
| Total | min. 19 |
| Additional Required Courses | Credits |
| ART 383 Applied Design Internship | 2-4 |
| COMM 410 Advanced Projects, Thesis, and Portfolio or ART 485 Senior Studio and ART 486 Senior Seminar and Exhibition | 4 or 2, 2 |
| Total | 6-8 |
| Total in major | 69-71 |
| Studio Art (BA) BA (40 hours) |  |
| Core Requirements (should be taken in the first year) | Credits |
| ART 131 Intro to Visual Arts | 2 |
| ART 211 Drawing I | 2 |
| ART 241 Two-Dimensional Design | 2 |
| ART 242 Three-Dimensional Design | 2 |
| COMM 115 Foundations of Digital Communication | 2 |
| Total | 10 |
| Art History | Credits |
| Choose 8 credits from the following; at least one must be ART 231, 232, or 237. |  |
| ART 216 The Art and History of Film Genre | 4 |
| ART 231 Ancient Art History | 4 |
| ART 232 Renaissance and Baroque Art History | 4 |
| ART 234 Art and Architecture in Europe | 4 |
| ART 236 Asian Art History | 4 |
| ART 237 Modern and Contemporary Western Art History | 4 |
| ART 314 Art and History of Film | 4 |
| ART 324, 325, 326, 327 Advanced Topics in Film | 2 |
| Total | 8 |


| Studio Courses | Credits |
| :---: | :---: |
| 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 485 Senior Studio | 2 |
| ART 486 Senior Seminar and Exhibition | 2 |
| Total | 20 |
| Additional Required Course | Credits |
| Art elective (any level) | 2 |
| Total in major | 40 |
| Studio Art (BFA) <br> BFA (62-66 hours) |  |
| Core (should be taken in the first year) | Credits |
| ART 131 Intro to Visual Arts | 2 |
| ART 211 Drawing I | 2 |
| ART 241 Two-Dimensional Design | 2 |
| ART 242 Three-Dimensional Design | 2 |
| COMM 115 Foundations of Digital Communication | 2 |
| Total | 10 |
| Art History Courses | Credits |
| Choose three courses from the following; at least one must be ART 231, 232, or 237. |  |
| ART 231 Ancient Art History | 4 |
| ART 232 Renaissance and Baroque Art History | 4 |
| ART 234 Art and Architecture in Europe | 4 |
| ART 236 Asian Art History | 4 |
| ART 237 Modern and Contemporary Western Art History | 4 |
| ART 314 Art and History of Film | 4 |
| Total | 12 |
| Studio Courses | Credits |


| ART 2XX Studio | 4 |
| :--- | :--- |
| ART 2XX Studio | 4 |
| ART 2XX Studio | 4 |
| ART 2XX Studio | 4 |
| ART 2XX or 3XX Studio | 4 |
| ART 3XX Studio | 4 |
| ART 3XX Studio | 4 |
| ART 3XX Studio | 4 |
| ART 3XX or 4XX Studio | 4 |
| ART 485 Senior Studio | 2 |
| ART 486 Senior Seminar and Exhibition | 2 |
| Total | 40 |
| Optional Course | 4 |
| Fine Arts Internship/Gallery Assistant | $62-66$ |
| Total in major | 4 |

Studio Art (BS)
BS (46 hours)

| Core (should be taken in the first year) | Credits |
| :--- | :--- |
| ART 131 Intro to Visual Arts | 2 |
| ART 211 Drawing I | 2 |
| ART 241 Two-Dimensional Design | 2 |
| ART 242 Three-Dimensional Design | 2 |
| COMM 115 Foundations of Digital Communication | 2 |
| Total | 10 |
| Art History Courses | Credits |
| Choose 8 credits from the following; at least one must be ART 231, 232, or 237. | 4 |
| ART 216 The Art and History of Film Genre | 4 |
| ART 231 Ancient Art History | 4 |
| ART 232 Renaissance and Baroque Art History | 4 |
| ART 234 Art and Architecture in Europe | 4 |


| ART 236 Asian Art History | 4 |
| :--- | :--- |
| ART 237 Modern and Contemporary Western Art History | 4 |
| ART 314 Art and History of Film | 4 |
| ART 324, 325, 326, 327 Advanced Topics in Film | 2 |
| Total | 8 |
| Art Studio Electives | Credits |
| 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 or 4XX Art Studio Elective | 4 |
| ART 485 Senior Studio | 2 |
| ART 486 Senior Seminar and Exhibition | 2 |
| Total | 28 |
| Total in major | 46 |
| Minor |  |

## Art Minor: 14 hours

A student may obtain an Art minor by completing 14 hours in art.
Art Business Minor: 14-17 hours

| Core Required Business Courses | Credits |
| :--- | :--- |
| BADM 203 Survey of Business | 3 |
| BADM/COMM 304 Social Media Marketing | 3 |
| Total | 6 |
| Core Required Art Courses | $3-4$ |
| ART/COMM 479 Professional Practices in Photography or ART 378 Photography for <br> Business | $3-4$ |
| ART/COMM 283 Introduction to Digital Photography | $6-8$ |
| Total | 3 |
| Electives (must choose at least one of the following) | 3 |
| ART 280 Creative Modern Portraiture | 3 |
| BADM 201 Business Communication |  |


| BADM/COMM 218 Marketing Principles | 3 |
| :--- | :--- |
| BADM 303 Entrepreneurship | 3 |
| COMM 295 ST: Online Portfolio Management | 2 |
| Total | $2-3$ |
| Total in minor | $14-17$ |

Pre-Professional Preparation

## Pre-Art Therapy <br> Faculty Advisor: Änna Pettway

Please see Pre-Art Therapy in the Department of Psychology and Criminal Justice section of the catalog.

## Biology

Aaron M. Sullivan, Chair | http://www.houghton.edu/biology/ | 585.567.9280 | biology@houghton.edu

The mission of the Department of Biology at Houghton is to provide students with the opportunity to explore the living world of God's creation, in all its intricacy and diversity, within the tradition of the liberal arts. Our majors develop an appreciation for the biological complexity apparent at the molecular, cellular, organismal, population, and ecosystem levels. We are committed to excellence in our teaching and research programs and strive to cultivate each student's ability to master fundamental concepts and underlying theories that unify and describe the major areas of biology, develop critical thinking skills related to experimental design and data analysis to answer biological questions, clearly communicate biological understanding with others both within and outside of the field of biology, and integrate their faith with scientific endeavors and a broad range of vocational callings.

Houghton students approach the study of the biological world through diverse study in genetics, molecular biology, microbiology and immunology, physiology, ecology, and animal behavior. In addition to formal coursework in these areas, many of our students participate in collaborative research courses or Summer Research Institute with a faculty sponsor to conduct research, publish findings, and present at scientific conferences. Thus, our program offers a challenging combination of coursework in the sciences and an emphasis on experiential learning.

Another benefit of our program is the ease with which interdisciplinary approaches can be achieved. Many of our students earn minors in other sciences (e.g., chemistry, mathematics), but study within biology can also be coupled with the arts, humanities, and social sciences to grapple with complexities related to fields as diverse as public health, human ecology, and art. Many Houghton students serve as Emergency Medical Technicians with the Houghton Volunteer Fire Department or participate in Houghton faculty-led coursework in East Africa or Alaska.
Majors
Biochemistry
Biology BA
Biology BS
Biology with Forestry Emphasis (taken in part
at SUNY-ESF)
Environmental Science BA
Environmental Science BS
Exercise Science - Applied Track
Exercise Science - Graduate Track
Pre-Pharmacy D (with University of Buffalo,
LECOM, and D'Youville University)

## Minors

Biology
Forestry

Pre-Professional
Pre-Medical Interest
Pre-Nursing Interest
Pre-Nursing Interest with Intercultural Studies

Pre-Physical Therapy Track
Pre-Veterinary Medicine Interest
Pre-Dental Interest

Faculty
David Brubaker Eli Knapp Jamie Potter Ransom Poythress
Aaron Sullivan
Majors

## Biochemistry Major

$\mathrm{BA} / \mathrm{BS}$ (39 hours in core; 19-24 corequisite hours; 12 prerequisite hours)
Biochemistry is an excellent path toward entering one of the health professions or following a career in biochemical research. A Biochemistry major at Houghton College can lead to an exciting career as a biomedical 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 the Biology department website.)
A major in Biochemistry at Houghton College enables a student to learn, in a context of faith, the normal or abnormal paths 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 a BA or BS degree in Biochemistry.

| Prerequisites | Credits |
| :--- | :--- |
| BIOL 152 General Biology: Cellular Biology and Genetics | 4 |
| CHEM 151 General Chemistry I | 4 |
| CHEM 152 General Chemistry II | 4 |
| Total | 12 |
| Corequisites | Credits |


| CSCI 211 Programming I | 4 |
| :---: | :---: |
| MATH 181 Calculus I or MATH 170/171 Calculus I with Pre-calculus A and B | 4 or 4,4 |
| PHYS 151 General Physics I | 4 |
| PHYS 152 General Physics II | 4 |
| BADM/PSY 309 Statistics | 3-4 |
| Total | 19-24 |
| Required Core Courses | Credits |
| CHEM 241 Organic Chemistry I | 4 |
| CHEM 242 Organic Chemistry II | 4 |
| CHEM 278 Chemical Instrumentation in Research | 4 |
| BIOL 251 Genetics | 4 |
| BIOL 370 Molecular and Cell Biology | 4 |
| CHEM 332 Biochemistry I | 3 |
| CHEM 334 Biochemistry Lab I | 1 |
| CHEM 333 Biochemistry II | 3 |
| CHEM 335 Biochemistry Lab II | 1 |
| CHEM 286 Special Topics in Chemistry | 2 |
| CHEM 352 Physical Principles | 3 |
| BIOCHM 480 Capstone: Seminar in Biochemistry | 1 |
| BIOL XXX elective | 4 |
| STEM 371 Career Seminar | 1 |
| Total | 39 |
| Total in major (not including prerequisites) | 58-63 |
| Research strongly encouraged |  |
| Biology Major BA <br> BA (27-31 hours in core; 12 corequisite hours; 8 prerequisite hours) |  |
| Prerequisite Courses | Credits |
| 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. |  |
| :---: | :---: |
| Total | 8 |
| Corequisites | Credits |
| CHEM 151 General Chemistry I | 4 |
| CHEM 152 General Chemistry II | 4 |
| PSY/BADM 309 Statistics | 4 |
| Total | 12 |
| Required Courses | Credits |
| BIOL 251 Genetics | 4 |
| BIOL 482 Senior Capstone: Senior Seminar | 2 |
| STEM 371 Career Seminar | 1 |
| Total | 7 |
| Organismal Biology | Credits |
| Choose one course from the following: |  |
| BIOL 207 Wildlife Behavior in East Africa | 4 |
| BIOL 301 Field Botany | 4 |
| BIOL 304 Herpetology | 4 |
| BIOL 313 Ornithology | 4 |
| BIOL 315 Marine Biology | 4 |
| BIOL 322 General Ecology | 4 |
| BIOL 336 Animal Behavior | 4 |
| Total | 4 |
| Biology Electives above BIOL 152 (16 hours) | Credits |
| Biology Electives above BIOL 152 | 16 |
| Experiential Biology (0-4 hours) | Credits |
| Choose one course in Experiential Biology: |  |
| BIOL 394 Research in Biology | 4 |
| BIOL 202 Pre-Health Practicum | 2 |
| BIOL 205 Internship in Biology | 4 |


| Off-campus Field Course (e.g., Au Sable) | $0-4$ |
| :--- | :--- |
| Shadowing/Observation/Internship Experience | $0-4$ |
| BIOL 393 Summer Research Experience | $1-4$ |
| BIOL 201 EMT Basic Course | $0-2$ |
| Total | $0-4$ |
| Total in major (not including prerequisites) | $39-43$ |

*This is the minimum coursework required for the major. Students should consult graduate programs of interest for additional requirements.

## Biology Major BS

BS (31 hours in core; 20-24 corequisite hours; 8 prerequisite hours)

| Prerequisite Courses | Credits |
| :--- | :--- |
| 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 <br> 152, students must enroll concurrently in BIOL 151 or BIOL 152 if also enrolling in 200-level <br> or higher biology courses. |  |
| Total | Credits |
| Corequisite Courses | 4 |
| CHEM 151 General Chemistry I | 4 |
| CHEM 152 General Chemistry II | 4 |
| CHEM 241 Organic Chemistry I | 4 |
| PHYS 151 General Physics I | 4 |
| MATH 181 Calculus I or MATH 170/171 Calculus I with Pre-calculus A and B or MATH 161 | 4 or |
| Calculus for the Life Sciences | 4,4 |
| Total | $20-24$ |
| Core Requirements | 4 |
| BIOL 251 Genetics | 4 |
| BIOL 322 General Ecology | 4 |
| BIOL 394 Research in Biology | 4 |
| BIOL 482 Biology Senior Capstone | 4 |


| STEM 371 Career Seminar | 1 |
| :---: | :---: |
| Total | 15 |
| Organismal Biology | Credits |
| Choose one course in organismal biology: |  |
| BIOL 207 Wildlife Behavior in East Africa | 4 |
| BIOL 301 Field Botany | 4 |
| BIOL 304 Herpetology | 4 |
| BIOL 313 Ornithology | 4 |
| BIOL 315 Marine Biology | 4 |
| BIOL 336 Animal Behavior | 4 |
| Total | 4 |
| Biology Electives above BIOL 218 (12 hours) | Credits |
| Electives | 12 |
| Recommended Courses | Credits |
| CHEM 332/334 Biochemistry I | 4 |
| PSY/BADM 309 Statistics | 4 |
| Total in major (not including prerequisites) | 51-55 |
| Environmental Science BA BA (57 hours in major) |  |
| Prerequisite Courses | Credits |
| 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. |  |
| Total | 8 |
| Corequisites | Credits |
| CHEM 151 General Chemistry I | 4 |
| CHEM 152 General Chemistry II | 4 |
| Total | 8 |


| Required Major Courses | Credits |
| :---: | :---: |
| BIOL 206 Field Techniques in Ecology | 4 |
| BIOL 250 Environmental Science | 4 |
| BIOL 251 Genetics | 4 |
| BIOL 255 Conservation Biology | 4 |
| BIOL 322 General Ecology | 4 |
| BIOL 393 Summer Collaborative Research in Biology or BIOL 394 Research in Biology | 4 |
| STEM 371 Career Seminar | 1 |
| BIOL 390 Environmental Science Internship | 2 |
| BIOL 482 Senior Capstone: Senior Seminar | 2 |
| Total | 29 |
| Electives | Credits |
| Choose three courses from the following or from approved off-campus study options: |  |
| BIOL 242 Microbiology |  |
| BIOL 301 Field Botany |  |
| BIOL 303 Biodiversity |  |
| BIOL 304 Herpetology |  |
| BIOL 305 Ecophysiology of Plants |  |
| BIOL 313 Ornithology |  |
| BIOL 336 Animal Behavior |  |
| SRWM 401 Natural Resource Management or SOC 315 Human Ecology |  |
| Total | 12 |
| Recommended Courses | Credits |
| PSY 309 Statistics |  |
| PHIL 311 Environmental Ethics |  |
| Total in major | 57 |

## Environmental Science BS

BS (69-73 hours in major)

| 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. |  |
| Total | 8 |
| Corequisites | Credits |
| CHEM 151 General Chemistry I | 4 |
| CHEM 152 General Chemistry II | 4 |
| CHEM 241 Organic Chemistry I | 4 |
| PHYS 151 General Physics I | 4 |
| MATH 181 Calculus I or MATH 170/171 Calculus I with Pre-calculus A and B | $\begin{aligned} & 4 \text { or } \\ & 4,4 \end{aligned}$ |
| Total | 20-24 |
| Required Major Courses | Credits |
| BIOL 206 Field Techniques in Ecology | 4 |
| BIOL 250 Environmental Science | 4 |
| BIOL 251 Genetics | 4 |
| BIOL 255 Conservation Biology | 4 |
| BIOL 322 General Ecology | 4 |
| BIOL 393 Summer Collaborative Research in Biology or BIOL 394 Research in Biology | 4 |
| STEM 371 Career Seminar | 1 |
| BIOL 390 Environmental Science Internship | 2 |
| BIOL 482 Senior Capstone: Senior Seminar | 2 |
| Total | 29 |
| Electives | Credits |
| Choose three courses from the following or from approved off-campus study options: |  |
| BIOL 242 Microbiology |  |
| BIOL 301 Field Botany |  |
| BIOL 303 Biodiversity |  |
| BIOL 304 Herpetology |  |


| BIOL 305 Ecophysiology of Plants |  |
| :--- | :--- |
| BIOL 313 Ornithology |  |
| BIOL 336 Animal Behavior |  |
| SRWM 401 Natural Resource Management or SOC 315 Human Ecology | 12 |
| Total | Credits |
| Recommended Courses |  |
| PSY 309 Statistics | $69-73$ |
| PHIL 311 Environmental Ethics |  |
| Total in major |  |

## Biology Major with Forestry Emphasis

BA/BS (46 hours in major [taken at SUNY-ESF]; 33-37 prerequisite hours [taken at Houghton])
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 missions organizations. The forestry offering at Houghton College, which enjoys a largely forested campus, allows interested students to develop a deeper understanding of these issues through a partnership with the State University of New York-College of Environmental Science and Forestry (SUNY-ESF). Both the Forestry minor and the Forestry emphasis within the 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 an entire academic year (Forestry emphasis within the Biology major), depending on their educational and career goals. Those participating for the whole year also earn an AAS from SUNY-ESF.

Note: This option 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 offering (earning a Forestry minor, Biology minor, and AAS degree in Forest Technology).

| SUNY-ESF Ranger School Required Prerequisites (courses taken at Houghton College) | Credits |
| :--- | :--- |
| ECON 210 Principles of Microeconomics or ECON 211 Principles of Macroeconomics | 3 |
| BIOL 151 General Biology: Organisms to Ecosystems | 4 |
| BIOL, CHEM, or PHYS - Science course with lab | 4 |
| MATH 181 Calculus I or MATH 170/171 Calculus I with Pre-calculus A and B or MATH 161 <br> Calculus for the Life Sciences | 4or <br> English course with focus on writing |


| Electives (suggested areas: psychology, sociology, computer science, public speaking) | 10 |
| :---: | :---: |
| Total SUNY-ESF prerequisites | 33-37 |
| AAS in Forest Technology Required Courses | Credits |
| FALL SEMESTER |  |
| Forest Ecology (This course, when counted for the AAS degree, may NOT also be counted toward a Biology major.) | 4 |
| Dendrology | 3 |
| Introduction to Natural Resources Measurements | 4 |
| Remote Sensoring and Geographic Information Technology | 3 |
| 8 hours of additional coursework are included in the program but do NOT transfer back to Houghton: |  |
| Introduction to Surveying | 3 |
| Communications and Safety | 3 |
| Timber Harvesting | 2 |
| SPRING SEMESTER |  |
| Silviculture | 4 |
| Forest Inventory Practicum | 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 |
| Field Apiculture | 1 |
| Total in major (not including prerequisites) | 46 |

Dendrology (3), Forest Ecology (4), and Silviculture (4) are counted toward the Biology major at Houghton College.

## Exercise Science Major (with Applied Track) BS

BS (34 hours in core; 26-29 corequisite hours; 8 prerequisite hours)
The BS in Exercise Science with Applied Track takes advantage of the College's participation in

NCAA Division III Athletics and its location in the underserved region of Allegany County in Western NY to provide students with ample opportunities for hands-on laboratory training and firsthand clinical experience. The BS in Exercise Science with Applied Track prepares students for immediate certification and job entry. Graduates can go on to work in sports coaching, sports ministry, personal training, strength and conditioning, exercise physiology, athletic administration, sports management, equine-assisted therapy, rehabilitation, health fitness centers, athletic performance centers, or other commercial or corporate wellness or fitness centers. The BS emphasizes Christ-centered and rigorous preparatory coursework in anatomy and physiology, exercise physiology, kinesiology, and first-aid certification as well as hands-on field experiences in a variety of clinical settings to help accumulate shadowing hours. Upon completion of the degree, students will understand injury and illness prevention, appreciate how diet can affect the body, learn how to condition the body, be able to ask research questions related to nutrition and exercise, and be knowledgeable about the many facets of the human body from bones and muscles to skin and tissue.

| Prerequisite Courses | Credits |
| :---: | :---: |
| BIOL 151 General Biology: Organisms to Ecosystems | 4 |
| BIOL 152 General Biology: Cellular Biology and Genetics | 4 |
| Core Requirements | Credits |
| BIOL 210 Medical Terminology | 2 |
| BIOL 217 Human Anatomy \& Physiology I | 4 |
| BIOL 218 Human Anatomy \& Physiology II | 4 |
| EXS 275 Injury Evaluation \& Management | 3 |
| EXS 277 Therapeutic Exercise \& Rehabilitation | 3 |
| EXS 345 Exercise Physiology | 4 |
| EXS 347 Kinesiology | 4 |
| EXS 352 Pre-PT Field Experience I and EXS 353 Pre-PT Field Experience II | 2,2 |
| PSY/BADM 309 Statistics | 4 |
| SRWM 308 First Aid \& Safety | 2 |
| Total | 34 |
| Additional Requirements | Credits |
| COMM 101 Presentational Speaking or COMM 215 Interpersonal Communication | 2-3 |
| PSY 111 Introduction to Psychology | 3 |
| PSY 200-level or higher | 3-4 |
| SRWM 475 Professional Development | 1 |


| SRWM 481 Senior Capstone Seminar | 2 |
| :--- | :--- |
| Total | $11-13$ |
| Required Minor (choose from preapproved list below or receive approval from BIOL chair) | Credits |
| Athletic Administration \& Sport Management/Equine-Assisted Therapy/Health Promotion <br> \& Fitness/Recreation/Sports Ministry | $15-16$ |
| Recommended Courses | Credits |
| BIOL 232 Epidemiology | 2 |
| COMM 105 Introduction to Human Communication | 3 |
| PHIL 240 Medical Ethics | 3 |
| SOC 101 Introduction to Sociology | 3 |
| Total in major (not including prerequisites) | $60-63$ |

## Exercise Science Major (with Graduate Track) BS

BS (34 hours in core; 29 corequisite hours; 8 prerequisite hours)
The BS in Exercise Science with Graduate Track takes advantage of the College's participation in NCAA Division III Athletics and its location in the underserved region of Allegany County in Western NY to provide students with ample opportunities for hands-on laboratory training and firsthand clinical experience. The BS in Exercise Science with Graduate Track prepares students for additional postgraduate studies. Graduates can go on to graduate school in physical therapy, occupational therapy, athletic training, and physical therapy assistant programs. The BS emphasizes Christ-centered and rigorous preparatory coursework in anatomy and physiology, exercise physiology, kinesiology, and first-aid certification as well as hands-on field experiences in a variety of clinical settings to help accumulate shadowing hours. Upon completion of the degree, students will understand injury and illness prevention, appreciate how diet can affect the body, learn how to condition the body, be able to ask research questions related to nutrition and exercise, and be knowledgeable about the many facets of the human body, from bones and muscles to skin and tissue.

| Prerequisite Courses | Credits |
| :--- | :--- |
| BIOL 151 General Biology: Organisms to Ecosystems | 4 |
| BIOL 152 General Biology: Cellular Biology and Genetics | 4 |
| Core Requirements | Credits |
| BIOL 210 Medical Terminology | 2 |
| BIOL 217 Human Anatomy \& Physiology I | 4 |
| BIOL 218 Human Anatomy \& Physiology II | 4 |
| EXS 275 Injury Evaluation \& Management | 3 |


| EXS 277 Therapeutic Exercise \& Rehabilitation | 3 |
| :---: | :---: |
| EXS 345 Exercise Physiology | 4 |
| EXS 347 Kinesiology | 4 |
| EXS 352 Pre-PT Field Experience I and EXS 353 Pre-PT Field Experience II | 2,2 |
| PSY/BADM 309 Statistics | 4 |
| SRWM 308 First Aid \& Safety | 2 |
| Total | 34 |
| Additional Requirements | Credits |
| CHEM 151 General Chemistry I | 4 |
| CHEM 152 General Chemistry II | 4 |
| BIOL 251 Genetics | 4 |
| BIOL 482 Biology Senior Capstone | 2 |
| STEM 371 Career Seminar | 1 |
| Total | 15 |
| Electives (choose 6 hours of classes from the list below in consultation with your advisor) | Credits |
| CHEM 187 Introduction to Nutrition | 3 |
| PSY 111 Introduction to Psychology | 3 |
| PSY 213 Developmental Psychology | 3 |
| PSY 217 Adolescence \& Emerging Adulthood | 3 |
| PSY 230 Lifespan Development | 3 |
| PSY 305 Abnormal Psychology | 3 |
| PSY 335 Drugs \& Behavior | 3 |
| PSY 321 Adult Development \& Aging | 3 |
| Total | 6 |
| Electives (choose 8 hours of classes from the list below in consultation with your advisor) | Credits |
| BIOL 242 Microbiology | 4 |
| BIOL 344 Muscle Biology in Health \& Disease | 4 |
| BIOL 355 Introduction to Neurobiology | 4 |
| BIOL 365 Immunology | 4 |


| BIOL 372 Advanced Vertebrate Physiology | 4 |
| :---: | :---: |
| BIOL 380 Pathogenic Microbes | 4 |
| Total in major (not including prerequisites) | 63 |
| Additional Electives (needed for some graduate programs-consult advisor) |  |
| MATH 181 Calculus I | 4 |
| PHYS 151 General Physics I | 4 |
| PHYS 152 General Physics II | 4 |
| Recommended Courses |  |
| BIOL 201 EMT Basic Course | 2 |
| BIOL 232 Epidemiology | 2 |
| COMM 101 Presentational Speaking | 2 |
| COMM 330 Conflict Management | 3 |
| PHIL 240 Medical Ethics | 3 |
| SOC 101 Introduction to Sociology | 3 |
| SRWM 325 Certified Personal Trainer | 2 |
| SRWM 326 Strength \& Conditioning | 2 |
| SRWM 315 Psychosocial Aspects of Sport | 2 |
| Total in major (not including prerequisites) | 71 |

## Pre-Pharmacy Major (with University at Buffalo)

BA (from Houghton)/PharmD (from UB)
(26 hours in major; 8 corequisite hours; 8 prerequisite hours)
The Houghton program in pre-pharmacy, in partnership with the University at Buffalo (UB), is a seven-year program resulting in a Biology BA (at Houghton) and a PharmD (at UB). The program entails three years of study at Houghton and four years at UB. Students in the program must meet UB academic requirements and interview for the program.

The program includes coursework in biology, chemistry, physics, and mathematics. The Biology BA major is completed with 26 hours in the major, 8 hours of prerequisites, and 8 hours of corequisites. In addition, there are a number of courses required for admission into the UB PharmD program.

| Prerequisite Courses | Credits |
| :--- | :--- |
| BIOL 151 General Biology: Organisms to Ecosystems | 4 |


| BIOL 152 General Biology: Cellular Biology and Genetics | 4 |
| :--- | :--- |
| Total | 8 |
| Corequisites | Credits |
| CHEM 151 General Chemistry I | 4 |
| CHEM 152 General Chemistry II | 4 |
| Total | 8 |
| Required Courses | 4,4 |
| BIOL 217, 218 Human Anatomy and Physiology I and II | 4 |
| BIOL 242 Microbiology | 4 |
| BIOL 251 Genetics | 2 |
| BIOL 482 Senior Capstone: Senior Seminar | 8 |
| BIOL XXX electives (to be met at UB) | 26 |
| Total | Credits |
| UB prerequisites for admission to UB PharmD Program | 4 |

See UB's catalog for their prerequisites for admission.

## Minors

## Biology Minor: 12 hours

12 hours above BIOL 151, 152

## Forestry Minor: 14 hours

Forestry (emphasis within the Biology 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 missions organizations. The forestry program at Houghton College, which enjoys a largely forested campus, offers interested students to develop a deeper understanding of these issues through an 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 SUNYESF 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 AAS 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 AAS degree in Forest Technology).

| SUNY-ESF Ranger School Required Prerequisites (courses taken at Houghton College: $\mathbf{3 2}$ credits) | Credits |
| :---: | :---: |
| ECON 210 Principles of Microeconomics or ECON 211 Principles of Macroeconomics | 3 |
| BIOL 151 General Biology: Organisms to Ecosystems | 4 |
| BIOL, CHEM, or PHYS - Science course with lab | 4 |
| MATH 181 Calculus 1 or MATH 170/171 Calculus I with Pre-calculus A and B or MATH 161 Calculus for the Life Sciences | $\begin{array}{lr} 4 & \text { or } \\ 4,4 \end{array}$ |
| English with focus on writing (e.g., Writing in Liberal Arts) | 6 |
| Electives (Suggested areas: psychology, sociology, computer science, public speaking) | 12 |
| Total SUNY-ESF prerequisites | 32-36 |
| Forestry Minor - courses taken during fall semester at SUNY-ESF Ranger School 14 credits transfer to Houghton College for minor |  |
| Forest Ecology (This course, when counted for the minor, may NOT also be counted toward a Biology major.) | 4 |
| Dendrology | 3 |
| Introduction to Natural Resources Measurements | 4 |
| Remote Sensoring and Geographic Information Technology | 3 |
| 8 hours of additional coursework are included in the program but do NOT transfer back to Houghton. |  |

## Pre-Professional Preparation

Students interested in pursuing medical training in graduate school 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 is a semester-long course in Medical Ethics (which offers a service-learning experience in a health-related venue).

## Pre-Medical Interest

Allopathic (awarding an MD) and osteopathic (awarding a DO) medical schools continue to be highly competitive and require rigorous academics, exceptional acumen, preparation for the medical field, and dedication to community service. Admission committees seek individuals with demonstrated competencies and outstanding academic achievement at the undergraduate level.

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 is necessary to maximize students' chances of being accepted to medical school. Students considering medical school should expect to work diligently from the very beginning of their college experience to ensure the 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. 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, and 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 Listing section of this catalog.

Houghton College has an Early Acceptance Program with Lake Erie College of Osteopathic Medicine (LECOM) for students to secure a seat at LECOM in their osteopathic medical program as early as their senior year in high school. Students must have proven academic abilities as demonstrated by their GPA, SAT/ACT score, and coursework. Students accepted into the program must maintain a GPA of at least 3.3 and must earn grades of at least $C$ in prerequisite courses. Up to five seats are offered per admission year. Additional information can be obtained by contacting Dr. Jamie Potter.

For further information about preparing for medical school, contact Dr. Jamie Potter.

## Pre-Nursing Interest

Houghton College has a 3+1 agreement with Indiana Wesleyan University (IWU). Students interested in this program obtain a bachelor's degree of their choice in three years and then complete the one-year BS in Nursing (BSN) at IWU. Specific course requirements are listed below; students must achieve at least a 2.75 cumulative GPA and score $65 \%$ or higher on the Test of Essential Academic Skills. Prerequisites can vary widely for institutions offering a BSN, accelerated BSN, MS in Nursing (MSN), or accelerated MSN degrees. Students must investigate those requirements.

Nursing is one of the largest and fastest-growing professions in our nation. Typical paths to registered nursing include completion of a BSN degree or, for clinical nurse specialists, nurse anesthetists, nurse-midwives, and nurse practitioners, an MSN degree. Houghton students interested in nursing typically pursue one of three paths: a) enroll in an accelerated BSN degree after completing a BA or BS in another field at Houghton College, b) enroll in an accelerated MSN degree after completing a BA or BS in another field at Houghton College, or c) transfer to a BSN degree after completing two years at Houghton College.

Most students interested in pursuing nursing major in Biology or Chemistry, though many other majors are possible. If a student takes a major other than Biology or Chemistry, the prerequisite science, psychology, and math courses must be included.

An advantage to studying at Houghton College prior to pursuing the nursing degree is the availability of Intercultural Studies courses. These classes, including those related to public health, prepare students for global service opportunities in missions, non-governmental organizations, public health organizations, and educational institutions. For further information, contact Dr. Jamie Potter.

The prerequisites for BSN, accelerated BSN, MSN, and accelerated MSN degrees can vary widely. It is therefore highly recommended that students interested in pursuing nursing after

Houghton work with Dr. Jamie Potter during their first and second years at Houghton College to review the specific requirements at selected colleges and universities.

Students planning to transfer to a BSN or accelerated BSN program typically complete the following courses:

| Typical Course Requirements | Credits |
| :--- | :--- |
| BIOL 217* and BIOL 218* Human Anatomy and Physiology I and II | 4,4 |
| CHEM 151* and CHEM 152 General Chemistry | 4,4 |
| BIOL 242* Microbiology | 4 |
| BIOL 209 Introduction to Nutrition* | 3 |
| PSY/BADM 309 or MATH 131 Principles of Statistics or MATH 181 Calculus I* | 3 or 4 |
| PSY 213 Developmental Psychology | 3 |

*Course required for 3+1 IWU agreement
Other courses that may be required by specific BSN or accelerated nursing degrees (either BSN or MSN) include Introduction to Psychology, Pathophysiology, Theology/Religious Studies, Medical Ethics, Human Growth and Development, Sociology, and Pharmacology.

## Pre-Nursing Interest with Intercultural Studies

Additional Intercultural Studies courses with pre-nursing courses
Students interested in the nursing profession in global service careers might consider taking the following courses in Intercultural Studies in addition to the courses suggested for those interested in pursuing nursing following their work at Houghton.

| Typical Course Requirements | Credits |
| :--- | :--- |
| BIOL 217 and BIOL 218 Human Anatomy and Physiology I and II | 4,4 |
| CHEM 151 and CHEM 152 General Chemistry | 4,4 |
| BIOL 242 Microbiology | 4 |
| CHEM 187 and CHEM 188 Nutrition | 4 |
| PSY 307 and PSY 308 or BADM/PSY 309 or MATH 131 Principles of Statistics | 3 or 4 |
| PSY 213 Developmental Psychology | 3 |
| Intercultural Studies Courses* | Credits |
| INCL 201 Introduction to Global Issues | 4 |
| INCL 243 Cultural Anthropology | 4 |
| INCL 310 Intercultural Competencies | 4 |
| INCL 311 Intercultural Experience | $0-4$ |


| *Note: Completion of these four Intercultural Studies courses would constitute a minor in Intercultural Studies. |  |
| :---: | :---: |
| Other helpful courses for students interested in nursing and missions or related international careers** | redits |
| MISS 241 History of the Global Christian Movement | 3 |
| MISS 242 Missions and the Global Church | 4 |
| MISS 341 Biblical and Theological Foundations of Mission | 4 |
| Various Bible Courses |  |
| **Note: Completion of these four courses would constitute a minor in Missions. |  |

## Pre-Physical Therapy

Taken with the BA in Biology (31 hours in core; 20-24 corequisite hours; 8 prerequisite hours; 16 hours in minor)

| Prerequisites | Credits |
| :---: | :---: |
| BIOL 151 General Biology: Organisms to Ecosystems | 4 |
| BIOL 152 General Biology: Cellular Biology and Genetics | 4 |
| Total | 8 |
| Corequisites | Credits |
| CHEM 151/152 General Chemistry I and II | 4,4 |
| PHYS 151/152 General Physics I and II | 4,4 |
| MATH 181 Calculus I or MATH 160/161 Calculus for the Life Sciences | 4 or 4,4 |
| Total | 20-24 |
| Required Major Courses | Credits |
| BIOL 217 and 218 Human Anatomy and Physiology I and II | 4,4 |
| BIOL 251 Genetics | 4 |
| EXS 345 Exercise Physiology | 4 |
| EXS 347 Kinesiology | 4 |
| BIOL XXX electives | 8 |
| BIOL 482 Senior Capstone: Senior Seminar | 2 |
| STEM 371 Career Seminar | 1 |
| Total | 31 |
| Pre-Physical Therapy/Athletic Training Minor Courses | Credits |


| SRWM 308 First Aid and Safety | 2 |
| :--- | :--- |
| EXS 275 Injury Evaluation and Management | 3 |
| EXS 277 Therapeutic Exercise and Rehabilitation | 3 |
| EXS 352 Pre-PT Field Experience I | 2 |
| EXS 353 Pre-PT Field Experience II | 2 |
| PSY/BADM 309 Statistics | 4 |
| Total | 16 |
| Total in major and minor | $75-79$ |

A pre-physical therapy track is available for students 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. Ransom Poythress.

## Pre-Veterinary Medicine Interest

Houghton provides a broad education while offering those courses specified by veterinary medical colleges for admission. Veterinary colleges stress the desirability of a well-rounded postsecondary education. They accept students without regard for their pre-professional majors and sometimes after three years or 90 hours of credit. However, most applicants major in Biology or Chemistry and, on average, have more than 100 hours of pre-professional training. Because there are relatively few veterinary colleges, the number of students accepted each year into veterinary curricula is small. Therefore, excellence of academic achievement and personal character as well as familiarity with the profession are necessary for admission. For further information, contact Dr. Aaron Sullivan.

## Pre-Dentistry Interest

Houghton College has an Early Acceptance Program with Lake Erie College of Osteopathic Medicine (LECOM) for students to secure a seat in their dental program as early as their senior year in high school. Students must have proven academic abilities as demonstrated by their GPA, SAT/ACT score, and coursework. Students accepted into the program must maintain a GPA of at least 3.3 and earn grades of $C$ or higher in prerequisite courses. Up to five seats are offered per admission year. Additional information can be obtained by contacting Dr. Jamie Potter.

## Pre-Pharmacy Interest

Houghton College has articulation agreements with LECOM and D'Youville University School of Pharmacy (DYSOP) for students to gain entry into their respective PharmD programs prior to graduation from Houghton College. With the Early Acceptance Program at LECOM, students in high school and college can secure a seat in their Doctor of Pharmacy program. Students must maintain high academic performance as demonstrated by their GPA, PCAT score, and prerequisite coursework. Up to five seats are offered per admission year.

With the DYSOP 3+4 articulation agreement, students will earn a bachelor's degree in Biochemistry or Biology at Houghton and a PharmD degree at DYSOP. Under this agreement, students will successfully complete three years of undergraduate study (99 credit hours) toward the BS in Biology or Biochemistry with pre-health professional training and then apply for admission to DYSOP in their junior year for the PharmD degree. The PharmD degree will be conferred at the completion of the program at DYSOP. DYSOP will offer up to 10 seats annually for qualified Houghton College students. If admitted into the PharmD program, all credits earned during the first year of the PharmD curriculum will be recognized by Houghton College and applied toward completion of the student's BS degree. Specific coursework will be required as part of the program to fulfill prerequisites of the 3+1 agreement. Additional information can be obtained by contacting Dr. Jamie Potter.

## Business and Economics

Mark Borchert, Chair | http://www.houghton.edu/business/ |
585.567.9440 | business@houghton.edu

The Business and Economics department aims to develop the character and intellect of our students and to equip them with skills to be Christlike scholar-servants who will steward the resources of for-profit, not-for-profit, and service organizations.

| Majors |  | Minors |  |
| :---: | :---: | :---: | :---: |
| Accounting |  | Accounting |  |
| Business Adm | ation | Business Administration |  |
| Human Resou | Management* | Economics |  |
| Integrated Ma | g Communication* | Human Resources Management* |  |
| Leadership De | ment* | Integrated Marketing Communication* |  |
| Organizationa | agement* | Leadership Development* |  |
| Associate of S | - Business | Leadership Studies |  |
|  |  | Organizational Management* |  |
| Graduate Program |  |  |  |
| Master of Business Administration (MBA) |  |  |  |
| Pre-Professional |  |  |  |
| 4+1 Accelerated MBA |  |  |  |
| *Also Houghton Online Majors and Minors |  |  |  |
| Faculty |  |  |  |
| Mark Borchert | Biwei Chen | Torrance Jones Elianna McHenry |  |
| Christopher Alex WrightWarburton |  |  |  |
|  |  |  |  |

## Graduate Program

## Business Administration

MBA (38 credits in the program)
Program requirements may be viewed in the Department of Online Programs section.
Majors

## Accounting Major (includes minor in Business Administration)

BS (60-61 credits in the major; including 15 in corequisites)

| Corequisites | Credits |
| :---: | :---: |
| BADM 201 Business Communication | 3 |
| ACCT 211 Financial Accounting | 3 |
| ACCT 212 Managerial Accounting | 3 |
| ECON 210 Principles of Microeconomics | 3 |
| ECON 211 Principles of Macroeconomics | 3 |
| Total | 15 |
| Major Required Courses (includes minor in Business Administration) | Credits |
| ACCT 311 Intermediate Accounting I | 3 |
| ACCT 312 Intermediate Accounting II | 3 |
| ACCT 314 Cost Accounting | 3 |
| ACCT 315 Auditing | 3 |
| ACCT 316 Federal Income Tax | 3 |
| ACCT 418 Advanced Accounting | 3 |
| ACCT 421 Internship | 2 |
| BADM 212 Principles of Management | 3 |
| BADM 213 Business Law I or BADM 214 Business Law II | 3 |
| BADM/COMM 218 Marketing Principles | 3 |
| BADM/PSY 309 Statistics | 3-4 |
| BADM 310 Corporate Finance | 3 |
| BADM 330 Operations Management | 3 |
| BADM 407 Investment Management | 3 |
| BADM 481 Senior Capstone: Strategic Management | 4 |


| Total in major | $60-61$ |
| :--- | :--- |
| Elective Double Major in Accounting \& Business Administration |  |
| Business Elective (see list of BADM or ECON) | 3 |
| Business Elective (see list of BADM or ECON) | 2 |
| Economics Elective | 2 |
| Total additional credits to earn elective double major | 8 |

Sixty-two of the 124 undergraduate college credits must be in liberal arts courses.
Students interested in Certified Public Accountant (CPA) licensure must have 150 credits, normally a combination of undergraduate and graduate coursework.

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

CMA exam preparation: The Houghton Accounting major qualifies students to take the CMA exam.

## Business Administration Major* <br> BS (50 credits)

| Corequisites | Credits |
| :--- | :--- |
| BADM 201 Business Communication | 3 |
| ECON 210 Principles of Microeconomics | 3 |
| ECON 211 Principles of Macroeconomics | 3 |
| Total | Credits |
| Core Courses | 3 |
| ACCT 211 Financial Accounting | 3 |
| ACCT 212 Managerial Accounting | 3 |
| BADM 212 Principles of Management | 3 |
| BADM 213 Business Law I or BADM 214 Business Law II | 3 |
| BADM/COMM 218 Marketing Principles | 3 |
| BADM/PSY 309 Statistics | $3-4$ |
| BADM 310 Corporate Finance | 3 |
| BADM 421 Internship in Business | 2 |


| BADM 481 Senior Capstone: Strategic Management | 4 |
| :---: | :---: |
| ECON XXX Economics Elective | 2 |
| Total | 29-30 |
| Elective Business courses: 12 credits from the courses below | Credits |
| Elective hours may be used to develop an Area of Focus in one area below by taking 8 hours in that area. (**Required for Area of Focus) |  |
| Economics |  |
| ECON 213 American Economic History I (Colonial Era to 1865) | 2 |
| ECON 301 Money, Banking, and Financial Markets | 3 |
| ECON 310 Intermediate Microeconomics | 1-2 |
| ECON 311 Intermediate Macroeconomics | 1-2 |
| ECON 315 Economics of Organization and Strategy | 2 |
| ECON 350 Economic Freedom | 2 |
| ECON XXX Economics Electives | 2 |
| Management |  |
| BADM 303 Entrepreneurship | 3 |
| BADM 314 Human Resources Management** | 3 |
| BADM 317 Management Information Systems | 3 |
| BADM 320 Leadership Development | 3 |
| BADM 330 Operations Management | 3 |
| BADM 414 Workplace Excellence | 1-4 |
| COMM 330 Conflict Management | 3 |
| Marketing |  |
| BADM/COMM 304 Social Media Marketing | 3 |
| BADM/COMM 312 Advertising Principles | 3 |
| BADM/COMM 315 Public Relations Principles | 3 |
| BADM 319 Marketing Research | 3 |
| BADM/COMM 335 Integrated Marketing Communication | 3 |
| BADM 340 eCommerce | 3 |
| Finance |  |


| BADM 407 Investment Management** | 3 |
| :---: | :---: |
| BADM 431 Security Analysis and Portfolio Management | 0-4 |
| ECON 301 Money, Banking and Financial Markets | 3 |
| International Business |  |
| IBI 331, 339, 350, 390 International Business Institute | 12 |
| BADM 313 International Business | 3 |
| BADM 340 eCommerce | 3 |
| ECON 212 International Economics | 3 |
| An approved cross-cultural experience | 2 |
| International Economics |  |
| BADM 313 International Business | 3 |
| ECON 212 International Economics | 3 |
| ECON 237 Comparative Economics Systems | 2 |
| ECON 350 Economic Freedom | 2 |
| An approved cross-cultural experience | 2 |
| Total elective business courses | 12 |
| Total in major | 50-51 |
| Internship: Internships are required of all students majoring in Business. Practical experience provides an excellent opportunity to link classroom theory with 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 2 but not more than 6 hours of internship experience. |  |
| All internship experiences must be pre-certified and follow internship requirements. Students wishing to earn credit h the summer will pay summer per credit hour tuition rates. internship meet the requirement for an internship without must still be pre-certified by the department-designated in other internship requirements. |  |

Select courses may fulfill the internship requirement if they focus on practical application of studied material and involve activity similar to that in the workplace. Examples of such courses include the following:

- BADM 431 - Security Analysis and 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 Volunteer Income Tax Assistance Program of the Internal Revenue Service.
- BADM 410 - Free Enterprise and Value Creation (Houghton Student Enterprises) - 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.
- BADM 435 - Management Consulting Practicum (Houghton Consulting Group) provides small teams of students with an opportunity to work with a "client" on an identified business-related project.

These courses may be taken multiple semesters to meet the 2-hour internship minimum.
Other courses may meet the requirement if their primary focus is on practical application. An example is the ST: Field Audit conducted for SIL/Wycliffe in Ivory Coast, Thailand, and Cameroon. For any course to meet the internship requirement, the intent must be service learning through the application of principles learned in the classroom. Courses with a handson component or service-learning project are encouraged in the curriculum but do not meet the internship requirement.

Human Resources Management Major (BS Main Campus, BS or BBA Houghton Online) BS or BBA ( 45 credits)

| Core Requirements | Credits |
| :--- | :--- |
| BADM 201 Business Communication | 3 |
| BADM 202 Accounting \& Finance Principles | 3 |
| BADM 212 Principles of Management | 3 |
| BADM/COMM 218 Marketing Principles | 3 |
| BADM/PSY 309 Statistics | $3-4$ |
| BADM 475 Organizational Development or BADM 481 Senior Capstone: Strategic <br> Management | $3-4$ |
| ECON 201 Introduction to Economics or ECON 210 Principles of Microeconomics or ECON <br> 211 Principles of Macroeconomics | 3 |


| PHIL 303 Organizational Ethics | 3 |
| :--- | :--- | :--- |
| Total | 24 |
| Major-Specific Requirements | Credits |
| BADM 314 Human Resources Management | 3 |
| BADM 345 Employment Law | 3 |
| BADM 446 Staffing \& Performance Management | 3 |
| BADM 450 Managing Total Rewards | 3 |
| Choose three courses from options listed below to total a minimum of 9 credits: | 3 |
| BADM 203 Survey of Business | 3 |
| BADM 320 Leadership Development | 3 |
| BADM 330 Operations Management | 3 |
| BADM 341 Work-Team Dynamics | 3 |
| BADM/INCL 343 Multicultural Teams and Leadership | 3 |
| BADM 414 Workplace Excellence | 3 |
| BADM 448 Employee Training and Development | 3 |
| COMM 330 Conflict Management | 21 |
| Total | 3 |
| Total in major (includes core and major-specific credits) | 3 |


| Integrated Marketing Communication Major (BS Main Campus, BS or BBA Houghton <br> Online) <br> BS or BBA (45 credits) |  |
| :--- | :--- |
| Core Courses | Credits |
| BADM 201 Business Communication | 3 |
| BADM 202 Accounting \& Finance Principles | 3 |
| BADM 212 Principles of Management | 3 |
| BADM/COMM 218 Marketing Principles | 3 |
| BADM/PSY 309 Statistics | $3-4$ |
| BADM 475 Organizational Development or BADM 481 Senior Capstone: Strategic |  |
| Management | $3-4$ |


| ECON 201 Introduction to Economics or ECON 210 Principles of Microeconomics or ECON 211 Principles of Macroeconomics | 3 |
| :---: | :---: |
| PHIL 303 Organizational Ethics | 3 |
| Total | 25 |
| Major-Specific Courses | Credits |
| BADM/COMM 304 Social Media Marketing | 3 |
| BADM/COMM 312 Advertising Principles | 3 |
| BADM/COMM 315 Public Relations Principles | 3 |
| BADM 319 Marketing Research | 3 |
| Choose three courses from options listed below to total a minimum of 9 credits: |  |
| BADM 303 Entrepreneurship | 3 |
| BADM 325 Project Management | 3 |
| BADM 341 Work-Team Dynamics | 3 |
| COMM 214 Introduction to Mass Media | 3 |
| COMM 216 Organizational Communication | 3 |
| COMM 232 Introduction to Web Communication | 3 |
| COMM 314 New Media and Society | 3 |
| PSY/SOC 218 Social Psychology | 3 |
| Total | 21 |
| Total in major (includes core and major-specific credits) | 45 |

## Leadership Development Major (BS Main Campus, BS or BBA Houghton Online)

 BS or BBA ( 45 credits)| Core Requirements | Credits |
| :--- | :--- |
| BADM 201 Business Communication | 3 |
| BADM 202 Accounting \& Finance Principles | 3 |
| BADM 212 Principles of Management | 3 |
| BADM/COMM 218 Marketing Principles | 3 |
| BADM/PSY 309 Statistics | $3-4$ |


| BADM 475 Organizational Development or BADM 481 Senior Capstone: Strategic Management | nt 3-4 |
| :---: | :---: |
| ECON 201 Introduction to Economics or ECON 210 Principles of Microeconomics or ECON 211 Principles of Macroeconomics | 13 |
| PHIL 303 Organizational Ethics | 3 |
| Total | 24 |
| Major-Specific Requirements | Credits |
| BADM 320 Leadership Development | 3 |
| BADM 448 Employee Training and Development | 3 |
| COMM 215 Interpersonal Communication | 3 |
| COMM 330 Conflict Management | 3 |
| Choose three courses from options listed below to total a minimum of 9 credits: |  |
| BADM 203 Survey of Business | 3 |
| BADM 303 Entrepreneurship | 3 |
| BADM 314 Human Resources Management | 3 |
| BADM/COMM 315 Public Relations Principles | 3 |
| BADM 341 Work-Team Dynamics | 3 |
| BADM/INCL 343 Multicultural Teams and Leadership | 3 |
| BADM 446 Staffing and Performance Management | 3 |
| PSY/SOC 218 Social Psychology | 3 |
| Total | 21 |
| Total in major (includes core and major-specific credits) | 45 |
| Organizational Management Major (BS Main Campus, BS or BBA Houghton Online) BS or BBA ( 45 credits) |  |
| Core Requirements Crder | Credits |
| BADM 201 Business Communication | 3 |
| BADM 202 Accounting \& Finance Principles | 3 |
| BADM 212 Principles of Management | 3 |
| BADM/COMM 218 Marketing Principles | 3 |
| BADM/PSY 309 Statistics | 3-4 |


| BADM 475 Organizational Development or BADM 481 Senior Capstone: Strategic <br> Management | $3-4$ |
| :--- | :--- |
| ECON 201 Introduction to Economics or ECON 210 Principles of Microeconomics or ECON <br> 211 Principles of Macroeconomics | 3 |
| PHIL 303 Organizational Ethics | 3 |
| Total | 24 |
| Major-Specific Requirements | Credits |
| BADM 314 Human Resources Management | 3 |
| BADM 325 Project Management | 3 |
| BADM 330 Operations Management | 3 |
| BADM 341 Work-Team Dynamics | 3 |
| Choose three courses from options listed below to total a minimum of 9 credits: | 3 |
| BADM 203 Survey of Business | 3 |
| BADM 303 Entrepreneurship | 3 |
| BADM/COMM 315 Public Relations Principles | 3 |
| BADM 320 Leadership Development | 3 |
| BADM/INCL 343 Multicultural Teams and Leadership | 3 |
| BADM 345 Employment Law | 3 |
| BADM 448 Employee Training and Development | 21 |
| COMM 330 Conflict Management | 45 |
| Total | 3 |
| Total in major (includes core and major-specific credits) | 3 |

## Associate of Science - Business

AS (minimum of 62 hours)
The AS in Business curriculum consists of 32 hours in General Education requirements, 18 hours in business, and 12 hours in related electives. Program requirements may be viewed in the Department of Online Programs section.

Minors
Important Note: Some courses in the following minors require pre/corequisites. Check course descriptions for clarification.

## Accounting Minor: 15 credits

| Required Courses | Credits |
| :--- | :--- |
| ACCT 211 Financial Accounting | 3 |
| ACCT 212 Managerial Accounting | 3 |
| ACCT 311 Intermediate Accounting I | 3 |
| ACCT 312 Intermediate Accounting II | 3 |
| Choose 3 credits of ACCT electives | 3 |
| Total in minor | 15 |

## Business Administration Minor: 15 credits

| Required Courses | Credits |
| :--- | :--- |
| ACCT 211 Financial Accounting or BADM 202 Accounting \& Finance Principles | 3 |
| BADM 212 Principles of Management* or BADM 201 Business Communication | 3 |
| BADM 213 Business Law I, BADM 214 Business Law II or BADM/PSY 309 Statistics* | $3-4$ |
| BADM/COMM 218 Marketing Principles* or BADM 315 Public Relations Principles | 3 |
| ECON 201 Intro to Economics, ECON 210 Principles of Microeconomics or ECON 211 <br> Principles of Macroeconomics | 3 |
| Total in minor | 15 |

*Select this course to meet the MBA prerequisites.

## Economics Minor: 15 credits

| Required Courses | Credits |
| :--- | :--- |
| ECON 210 Principles of Microeconomics | 3 |
| ECON 211 Principles of Macroeconomics | 3 |
| Additional credits from ECON courses numbered 200 or above | 9 |
| Total in minor | 15 |

This minor aims to develop students' 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 worldview and its interaction with economic concepts, methods, and policies. Economic theory provides essential background for careers in business, law, politics, teaching, and all areas of private and public administration.

Human Resources Management Minor: 15 credits (Main Campus \& Houghton Online)

| Required courses | Credits |
| :--- | :--- |
| BADM 212 Principles of Management | 3 |
| BADM 314 Human Resources Management (Prerequisite BADM 212) | 3 |



Leadership Development Minor: 15 credits (Main Campus \& Houghton Online)

| Required courses | Credits |
| :--- | :--- |
| BADM 212 Principles of Management | 3 |
| BADM 320 Leadership Development | 3 |
| BADM 341 Work-Team Dynamics | 3 |
| COMM 330 Conflict Management | 3 |
| Additional 3 credits selected from following: | 3 |


| BADM/INCL 343 Multicultural Teams and Leadership <br> BADM 448 Employee and Training Development <br> BADM 475 Organizational Development <br> COMM 215 Interpersonal Communication or PSY/SOC 218 Social Psychology |  |
| :---: | :---: |
| Total in minor | 15 |
| Leadership Studies Minor: 14 credits |  |
| Required courses | Credits |
| BADM 320 Leadership Development | 3 |
| Additional 11 credits selected from the following (from at least two disciplines): | 11 |
| BADM 201 Business Communication (3) <br> BADM 212 Principles of Management (3) <br> BADM 320 Leadership Development (3) <br> COMM 215 Interpersonal Communication (3) <br> COMM 216 Organizational Communication (3) <br> COMM 330 Conflict Management (3) <br> INCL 310 Intercultural Competencies (4) <br> MBCM 320 Artist Management and Development Internship (1-4) <br> MIN 317 Leadership in the Church (3) <br> SRWM 229 Outdoor Leadership Training (3) <br> THEL 320 Spiritual Formation (4) <br> THEL 327 Church, Mission, and Culture (3) |  |
| Total in minor | 14 |

This cross-disciplinary minor in Leadership Studies can alternatively be earned by completing the LIFT (Leaders in Further Training) discipleship training program (run by Camp of the Woods) with the addition of BADM 320 Leadership Development. Students can earn 12 credits through this program.

Organizational Management Minor: 15 credits (Main Campus \& Houghton Online)

| Required Courses | Credits |
| :--- | :--- |
| BADM 202 Accounting and Finance Principles or ACCT 211 Financial Accounting | 3 |
| BADM 212 Principles of Management | 3 |
| BADM 314 Human Resources Management | 3 |
| BADM 325 Project Management | 3 |


| Additional 3 credits selected from following: |
| :--- |
| BADM 303 Entrepreneurship or BADM 203 Survey of Business |
| BADM 320 Leadership Development |
| BADM 341 Work Team Dynamics |
| BADM 475 Organizational Development or BADM 330 Operations Management |

An Organizational Management minor provides students from various majors with some of the background and expertise they may need for supervisory and administrative roles in various organizations. In particular, it may prove helpful to those assuming duties in church, parachurch, and other service organizations.
Pre-Professional Preparation

## 4+1 Accelerated MBA

Five Years, Two Degrees
Houghton has established agreements with selected graduate schools whereby qualified students who have earned a BS degree in Business can accelerate their MBA degree. Students can waive certain MBA foundation courses, allowing them to complete an 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 more than five years old upon matriculation in the MBA program. Students can consult their advisors for information about the courses to select and specific graduate requirements.
Houghton currently has 4+1 agreements with Alfred University, Clarkson University, Niagara University, Rochester Institute of Technology, and St. Bonaventure University.

## Chemistry

Karen E. Torraca, Chair | http://www.houghton.edu/chemistry/ |

### 585.567.9383

Majoring in Chemistry at Houghton College is a great way to prepare for a career in one of the health professions or 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 or Biochemistry degree and then entered an advanced accelerated nursing curriculum to complete an additional degree in fewer than two more years.

## Majors

Biochemistry
Chemistry BA
Chemistry BS

## Faculty

Paul Martino John M. Rowley Karen E. Torraca

Minor
Chemistry

Majors

## Biochemistry Major

BA/BS (39 hours in core; 19-24 corequisite hours; 12 prerequisite hours)
Biochemistry is an excellent path toward entering one of the health professions or following a career in biochemical research. A Biochemistry major at Houghton College can lead to an exciting career as a biomedical 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 the Biology department website.)

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 a BA or BS degree in Biochemistry.

| Prerequisites | Credits |
| :--- | :--- |
| BIOL 152 General Biology: Cellular Biology and Genetics | 4 |
| CHEM 151 General Chemistry I | 4 |
| CHEM 152 General Chemistry II | 4 |
| Total | 12 |
| Corequisites | Credits |
| CSCI 211 Programming I | 4 |
| MATH 181 Calculus I or MATH 170/171 Calculus I with Pre-calculus A and B or MATH 161 |  |
| Calculus for the Life Sciences | 4 or 4,4 |
| PHYS 151 General Physics I | 4 |
| PHYS 152 General Physics II | 4 |
| PSY/BADM 309 Statistics | $3-4$ |
| Total | $19-24$ |
| Core Requirements | Credits |


| CHEM 241 Organic Chemistry I | 4 |
| :---: | :---: |
| CHEM 242 Organic Chemistry II | 4 |
| CHEM 278 Chemical Instrumentation in Research | 4 |
| BIOL 251 Genetics | 4 |
| BIOL 370 Molecular and Cell Biology | 4 |
| CHEM 332 Biochemistry I | 3 |
| CHEM 334 Biochemistry Lab I | 1 |
| CHEM 333 Biochemistry II | 3 |
| CHEM 335 Biochemistry Lab II | 1 |
| CHEM 286 Special Topics in Chemistry | 2 |
| CHEM 352 Physical Principles | 3 |
| BIOCHM 480 Capstone: Seminar in Biochemistry | 1 |
| BIOL XXX elective | 4 |
| STEM 371 Career Seminar | 1 |
| Total | 39 |
| Total in major (not including prerequisites) | 58-63 |
| Research strongly encouraged |  |
| Chemistry Major BA <br> BA (28 hours in core; 20-24 corequisite hours; 8 prerequisite hours) |  |
| Prerequisites | Credits |
| CHEM 151, 152 General Chemistry I, II | 4,4 |
| Total | 8 |
| Corequisites | Credits |
| PHYS 151, 152 General Physics I, II | 4,4 |
| MATH 181 Calculus I or MATH 170/171 Calculus I with Pre-calculus A and B or MATH 161 Calculus for the Life Sciences | 4 or 4,4 |
| MATH 182 Calculus II | 4 |
| MATH 241 Differential Equations or MATH 225 Multivariate Calculus | 4 |


| Total | 20-24 |
| :--- | :--- |
| Core Requirements | Credits |
| CHEM 241, 242 Organic Chemistry I, II | 4,4 |
| CHEM 277 Analytical Chemistry | 4 |
| CHEM 278 Chemical Instrumentation in Research | 4 |
| CHEM 361, 362 Physical Chemistry I, II | 4,4 |
| CHEM 286 Special Topics | 2 |
| STEM 371 Career Seminar | 1 |
| CHEM 482 Senior Capstone: Chemistry Seminar | 28 |
| Total | $48-52$ |
| Total in major (not including prerequisites) | 4 |

## Chemistry Major BS

BS (36 hours in core; 20-24 corequisite hours; 8 prerequisite hours)
The BS Chemistry major is designed for preparation for professional employment or for graduate work in chemistry or chemically related fields.

| Prerequisites | Credits |  |
| :--- | :--- | :--- |
| CHEM 151, 152 General Chemistry I, II | 4,4 |  |
| Total | 8 |  |
| Corequisites | Credits |  |
| PHYS 151, 152 General Physics I, II | 4,4 |  |
| MATH 181 Calculus I or MATH 170/171 Calculus I with Pre-calculus A and B or MATH 161 <br> Calculus for the Life Sciences | 4or <br> MATH 182 Calculus II | 4,4 |
| MATH 241 Differential Equations or MATH 225 Multivariate Calculus | 4 |  |
| Total | 4 |  |
| Core Requirements | $20-24$ |  |
| CHEM 241, 242 Organic Chemistry I, II | Credits |  |
| CHEM 277 Analytical Chemistry | 4,4 |  |
| CHEM 278 Chemical Instrumentation in Research | 4 |  |
| CHEM 361, 362 Physical Chemistry I, II | 4,4 |  |


| CHEM 286 Special Topics | 2 |
| :--- | :--- |
| CHEM 482 Senior Capstone: Chemistry Seminar | 1 |
| STEM 371 Career Seminar | 1 |
| 8 additional hours in chemistry selected from courses numbered above 300, including at <br> least one of the following courses: | 8 |
| CHEM 332 Biochemistry I | 3 |
| CHEM 343 Advanced Organic Chemistry | 3 |
| CHEM 453 Advanced Inorganic Chemistry | 3 |
| Total | 36 |
| Total in major (not including prerequisites) | $56-60$ |

Research strongly encouraged

## Minor

## Chemistry Minor: 12 hours

The minor in Chemistry consists of at least 12 CHEM credit hours at 200-level or above.

## Communication

Douglas M. Gaerte, Chair | http://www.houghton.edu/communication/ | 585.567.9462

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

## Majors

Communication (no concentration)
Communication with Concentration in Integrated Marketing
Communication
Communication with Concentration in Media Arts and Visual
Communication
Communication with Concentration in Rhetorical
Communication

Faculty
Mark Borchert $\quad$ Ryann Cooley Douglas M. Gaerte David M. Huth

| Madison T. Murphy |  |
| :---: | :---: |
| Majors |  |
| Communication Major (No Concentration) <br> BA/BS (18 hours in core; 17-18 hours of elective courses) |  |
| Core Requirements | Credits |
| COMM 101 Presentational Speaking | 2 |
| COMM 115 Foundations of Digital Communication | 2 |
| COMM 205 Introduction to Communication Theory | 3 |
| COMM 214 Introduction to Mass Media | 3 |
| COMM 215 Interpersonal Communication | 3 |
| COMM 216 Organizational Communication | 3 |
| COMM 417 Seminar in Public Communication | 2 |
| Total | 18 |
| Elective Courses | Credits |
| In consultation with an advisor, the student should COMM prefix. |  |
| Total | 18-28 |
| Total in major (including prerequisite) | 35-36 |
| Communication Major with Concentration in Integrated Marketing BA/BS (18 hours in core; 20-24 hours in concentration) |  |
| 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 for- 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. |  |
| Core Requirements | Credits |
| COMM 101 Presentational Speaking | 2 |
| COMM 115 Foundations of Digital Communication | 2 |


| COMM 205 Introduction to Communication Theory | 3 |
| :---: | :---: |
| COMM 214 Introduction to Mass Media | 3 |
| COMM 215 Interpersonal Communication | 3 |
| COMM 216 Organizational Communication | 3 |
| COMM 417 Seminar in Public Communication | 2 |
| Total | 18 |
| Concentration Courses - Required Core | Credits |
| COMM/BADM 218 Marketing Principles | 3 |
| COMM/BADM 312 Advertising Principles | 3 |
| COMM/BADM 315 Public Relations Principles | 3 |
| BADM 319 Marketing Research | 3 |
| Total | 12 |
| Concentration Electives | Credits |
| Three electives, including at least one writing course and at least 8 hours total, chosen from: |  |
| COMM 228 Digital Video I <br> COMM 232 Introduction to Web Communication <br> COMM 243 Graphic Design I <br> COMM 283 Introduction to Digital Photography <br> COMM 284 Introduction to Digital Imaging <br> COMM 289, 389, 489 Internship <br> COMM 295, 395 Special Topics <br> COMM 304 Social Media Marketing <br> COMM 314 New Media \& Society <br> COMM 316 Advanced Presentational Speaking <br> COMM 345 Graphic Design II <br> COMM 380 Lighting for Still and Moving Image <br> COMM 384 Digital Imaging II <br> WRIT 214 Literary Nonfiction <br> WRIT 216 Print Journalism <br> WRIT 217 Professional Writing <br> WRIT 312 Writing for Social Change |  |
| Total | 8-12 |
| Total in major and concentration (including prerequisite) | 38-42 |

## Communication Major with Media Arts and Visual Communication BA/BS (18 hours in core; 24-28 hours in concentration)

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 nonprofit organizations, alternative political or social speech, media and performance art, documentary from a personal viewpoint, and storytelling/folklore are areas in which students can apply their knowledge and skills.

| Core Requirements | Credits |
| :--- | :--- |
| COMM 101 Presentational Speaking | 2 |
| COMM 115 Foundations of Digital Communication | 2 |
| COMM 205 Introduction to Communication Theory | 3 |
| COMM 214 Introduction to Mass Media | 3 |
| COMM 215 Interpersonal Communication | 3 |
| COMM 216 Organizational Communication | 3 |
| COMM 417 Seminar in Public Communication | 2 |
| Total | 18 |
| Concentration Courses - Required | 4 |
| COMM 243 Graphic Design I | 4 |
| COMM 284 Introduction to Digital Imaging | 4 |
| COMM 228 Digital Video I or COMM 224 Motion Media Design and Animation I | 12 |
| Total | Credits |
| Concentration Electives |  |


| Four electives (at least 12 hours)* chosen from: |  |  |
| :---: | :---: | :---: |
| COMM 207 | Introduction to Pro Tools |  |
| COMM 208 | Pro Tools Production I |  |
| COMM 224 | Motion Media Design and Animation I |  |
| COMM 228 | Digital Video I |  |
| COMM 232 | Intro to Web Communication |  |
| COMM 240 | Intro to 3D Computer Graphics |  |
| COMM 283 | Intro to Digital Photography |  |
| COMM 289, 389, 489 | Internship |  |
| COMM 295, 395, 495 | Special Topics |  |
| COMM 314 | New Media and Society |  |
| COMM 323 | Motion Media Design and Animation II |  |
| COMM 328 | Digital Video II |  |
| COMM 345 | Graphic Design II |  |
| COMM 380 | Lighting for the Still and Moving Image |  |
| COMM 382 | Advanced Topics in Photography |  |
| COMM 384 | Digital Imaging II |  |
| COMM 410 | Media Arts: Advanced Projects |  |
| COMM 479 | Professional Practices in Photography |  |
| WRIT 304 | Screenwriting |  |
| * At least 8 hours of electives must be taken at the 300 level or above. |  |  |
| Total |  | 12-16 |
| Total in major and concentration (including prerequisite) |  | 42-46 |

## Communication Major with Rhetorical Communication <br> BA/BS (18 hours in core; 19-25 hours in concentration)

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 message delivery.

Central to the study of rhetoric is the notion of civic engagement. In a democracy, the opportunity for people to express themselves, present arguments, engage in debate, and 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, workplace, and 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 message consumers. This concentration is especially applicable to those students interested in law, politics, and ministry.

| Core Requirements | Credits |
| :---: | :---: |
| COMM 101 Presentational Speaking | 2 |
| COMM 115 Foundations of Digital Communication | 2 |
| COMM 205 Introduction to Communication Theory | 3 |
| COMM 214 Introduction to Mass Media | 3 |
| COMM 215 Interpersonal Communication | 3 |
| COMM 216 Organizational Communication | 3 |
| COMM 417 Seminar in Public Communication | 2 |
| Total | 18 |
| Concentration Courses - Required | Credits |
| COMM 316 Advanced Presentational Speaking | 2 |
| COMM 319 American Public Address | 3 |
| Total | 5 |
| Concentration Electives | Credits |
| Five electives (at least 14 hours) chosen from: |  |
| COMM 244 Oral Performance of Literature <br> COMM 289, 389,489 Internship <br> COMM 291,391,491 Independent Study <br> COMM 295,395,495 Special Topics <br> MIN 324 Preaching and the Church <br> PHIL 222 Logic and Critical Thinking <br> WRIT 214 Literary Non-Fiction <br> WRIT 216 Print Journalism |  |
| WRIT 217 Professional Writing <br> WRIT 312 Writing for Social Change <br> WRIT 316 Print Journalism II |  |
| Total | 14-20 |
| Total in major and concentration (including prerequisite) | 37-43 |

## Communication Minor: 12-15 hours

| Required Courses | Credits |
| :--- | :--- |
| COMM 205 Intro to Communication Theory | 3 |


| Three additional courses with COMM prefix for at least 9 hours total | $9-12$ |
| :--- | :--- |


| Total in minor | 12-15 |
| :--- | :--- | :--- |

## Education

Sunshine R. Sullivan, Chair | http://www.houghton.edu/education/ | 585.567.9685

Houghton College's teacher education program has deep roots in the liberal arts and the Christian faith and is committed to the highest professional standards in teacher education. A degree in education prepares teachers steeped in content areas and committed to serving the needs of diverse learners and communities. Our mission is to equip teachers for transformative learning and service.
Houghton's Education faculty are committed to integrating theory, practice, and Christian faith in their teaching. All have earned graduate degrees in specific areas of specialization, and all have served as classroom teachers. This combination of experience, expertise, and a Christian worldview provides a classroom context that promotes the intellectual development and spiritual formation of students who graduate to serve as scholars and leaders in the world of education.

Education majors will complete one of four program strands: Adolescence Education, Inclusive Adolescence Education, Inclusive Childhood Education, or Music Education. Students in each strand receive thorough preparation in educational theory and practice as well as intensive preparation in their chosen content area. All students participate in a variety of classroom experiences that place them in rural and urban schools, service learning, and individual student teaching placements. Graduates of all program strands are well prepared to meet the needs of diverse learners across a wide range of settings and are thoroughly prepared for graduate study.

## Graduate Program

Literacy (MSEd)

## Undergraduate Program

## Majors

Adolescence Education (ADE)
Inclusive Adolescence Education (IADE)
Inclusive Childhood Education (ICE)* Music Education (with a vocal, instrumental, or composition emphasis: MEI, MEV, MEC)
*Must be accompanied by a concentration of at least 30 credits. See options listed below.

## Concentration Options for Inclusive Childhood Education Majors:

ICE Major with Art Concentration
ICE Major with Communication Concentration
ICE Major with English Concentration
ICE Major with Humanities Concentration

| ICE Major with Intercultural Studies Conc. | ICE Major with Mathematics and Science <br> Conc. |
| :--- | :--- |
| ICE Major with Mathematics | ICE Major with Music Concentration |
| Concentration |  |
| ICE Major with Science Concentration | ICE Major with Social Studies Concentration |
| ICE Major with Writing Concentration |  |

## Minor

Education

## Faculty

Martin J. Coates
Silas Schaeffer
Sunshine R. Sullivan

## General Information

Admission to the path within the Houghton College Teacher Education area is by application, and continuation on this path requires meeting the standards outlined below. The Teacher Education Committee considers 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 along this path.

To be recommended for teacher certification, students must earn a final course grade of Cor higher in all EDUC, concentration, and/or content major courses. For admission to the teacher education area, a student must do the following:

- Complete an application (completed in EDUC 202)
- Successfully complete the writing sample assessment
- Present a cumulative GPA of at least 2.5
- Demonstrate acceptable evidence of professional dispositions
- Receive formal approval from the Teacher Education Committee

For entry into upper-level education courses (courses numbered 300 and higher), a student must do the following:

- Have been admitted to the teacher education area
- Have successfully completed specified 200-level coursework in education (ADE/IADE majors must complete EDUC 219, 235, and 240; ICE majors must complete EDUC 114, 219, 235, and 240; students in ALL teacher education strands [ADE, IADE, ICE, Music Ed] must complete EDUC 202 Topics in Professionalism by the end of the sophomore year)
- Present a cumulative GPA of at least 2.6
- Demonstrate acceptable evidence of a professional disposition
- Receive formal approval from the Teacher Education Committee

Note: Continuation in the second semester of the junior-level course sequence in each major is contingent upon successful completion of all requirements for coursework and field placements. To continue and 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 do the following:

- 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
- 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)
- Present a cumulative GPA of at least 2.7
- Demonstrate acceptable evidence of a professional disposition
- Complete all State-mandated training sessions required for certification (completed in EDUC 202)
- Complete all required contact hours (varies according to strand)
- Receive formal approval from the Teacher Education Committee

Adolescence Education or Inclusive Adolescence Education majors seeking approval for student teaching outside the U.S. must present a cumulative GPA 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 GPA as one of the necessary requirements for approval to student teach. However, there are occasions when a student with a cumulative GPA below the 2.7 shows reasonable potential for success in student teaching. When such a student is identified by the student's Education department advisor and/or the student teacher coordinator, the student may prepare a letter of appeal (if the student's cumulative GPA is at least 2.65), and the case will be considered by the Teacher Education Committee.

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

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

New York State Teacher Certification: Students completing Adolescence Education, Inclusive Adolescence Education, Inclusive Childhood Education, or Music 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). 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 majors is available in the Music Education section of this catalog. Teacher candidates are advised to contact Professor Martin Coates to ensure that they have accurate/current information regarding New York State certification requirements, including the new edTPA component. 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. Further information about interstate reciprocity agreements may be obtained through the education department at
http://www.highered.nysed.gov/tcert/certificate/levelcert.html or http://www.highered.nysed.gov/tcert/certificate/teachrecother.html.

## Important Information about Student Teaching <br> 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 a student may be permitted to work under the following guidelines:

- 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 the student's financial need and the anticipated work responsibilities, including days and hours (may not exceed 10 hours/week).
- The student can demonstrate that outside employment will not interfere with normal after-school responsibilities associated with the student teaching assignment.
- The student indicates willingness to abide by any restrictions concerning working that the Teacher Education Committee requires.

PLEASE NOTE: If outside employment hinders a student's teaching performance, the Teacher Education Committee reserves the right to require the student teacher to further limit or eliminate work hours. Failure to follow the appeal procedure may result in the student being removed from the field experience. Students may be members of intercollegiate teams only if they have petitioned and received special approval from the Teacher Education Committee prior to placement. (Please contact Martin Coates regarding the petition process.)

Music Education students are discouraged from taking applied lessons during the student teaching semester. If applied lessons are essential during this semester, a student must present a petition to the Teacher Education Committee prior to placement. If permission is granted by the Committee, students will not be permitted to register for more than 2 credits of applied lessons. (Please contact Martin Coates for information about the petition process.)

During the student teaching-related classes, students may not enroll in other college classes with the exception of EDUC 485.

## Graduate Program

## Literacy Education Program

MSEd (30-39* credits in the program)
Program requirements may be viewed in the Department of Online Programs section.
Undergraduate Program Majors

## Adolescence Education Major (7-12)

BA (39 hours)
This major prepares students to teach at the secondary level (grades 7 through 12) in one of the following subjects: history (with augmented requirements for social studies), biology, chemistry, English, mathematics, and physics. 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) EDUC 235, 240, and 3XX.
Students majoring in Adolescence Education must complete one of the following as an additional major: History (with augmented requirements for social studies), Biology, Chemistry, English, Mathematics, and Physics.

| Major Requirements | Credits |
| :--- | :--- |
| EDUC 202 Topics in Professionalism | 0 |
| EDUC 217 Education and American Culture | 3 |
| EDUC 219 Educational Psychology | 3 |
| EDUC 223 Adolescent Literature | 3 |
| EDUC 235 Educating Exceptional Learners | 3 |
| EDUC 240 Teaching in Urban America | 2 |
| EDUC 313 Language, Literacy, and Curriculum Integration for Diverse Learners | 3 |
| EDUC 331 Secondary Teaching: General Methods | 2 |
| EDUC 338 Inclusive Curriculum and Assessment in Secondary Classrooms | 4 |
| EDUC 33X Secondary Teaching: Content Methods and Practicum | 2 |
| EDUC 332 English Methods |  |


| EDUC 333 Foreign Language Methods |  |
| :--- | :--- |
| EDUC 334 Math Methods |  |
| EDUC 335 Science Methods |  |
| EDUC 336 Social Studies Methods | 0 |
| EDUC 400 Student Teaching and Certification Orientation | 6 |
| EDUC 409 Secondary Student Teaching I | 6 |
| EDUC 410 Secondary Student Teaching II | 2 |
| EDUC 485 Senior Capstone: Seminar on Reflective Teaching | 39 |
| Total in major |  |

## Inclusive Adolescence Education Major

BA (43 hours in core; 24 corequisite hours)
This major prepares candidates to teach students with disabilities at the secondary level (grades 7 through 12) across content areas and leads to the Students with Disabilities 7-12 Generalist certificate. This major includes 24 corequisite hours in the core content areas. Grades for these 24 hours must be C or higher to satisfy New York State 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) EDUC 235, 240, and 33X.
Students wishing to earn an additional teaching certificate at the secondary level may complete a second major in one of the following areas: History (with augmented requirements for social studies), Biology, Chemistry, English, Mathematics, and Physics. Students pursuing dual certification at the secondary level will complete a minimum of 150 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) EDUC 235, 240, and 33X.

| Major Requirements | Credits |
| :--- | :--- |
| EDUC 202 Topics in Professionalism | 0 |
| EDUC 217 Education and American Culture | 3 |
| EDUC 219 Educational Psychology | 3 |
| EDUC 223 Adolescent Literature | 3 |
| EDUC 235 Educating Exceptional Learners | 3 |
| EDUC 240 Teaching in Urban America | 2 |
| EDUC 313 Language, Literacy, and Curriculum Integration for Diverse Learners | 3 |


| EDUC 325 Issues in Inclusive Education I | 2 |
| :---: | :---: |
| EDUC 338 Inclusive Curriculum and Assessment in Secondary Classrooms | 4 |
| EDUC 331 Secondary Teaching: General Methods | 2 |
| EDUC 33X Secondary Teaching: Content Methods and Practicum | 2 |
| 332 English Methods |  |
| 333 Foreign Language Methods |  |
| 334 Math Methods |  |
| 335 Science Methods |  |
| 336 Social Studies Methods |  |
| EDUC 400 Student Teaching and Certification Orientation | 0 |
| EDUC 409 Secondary Student Teaching I | 6 |
| EDUC 410 Secondary Student Teaching II | 6 |
| EDUC 425 Issues in Inclusive Education II | 2 |
| EDUC 485 Senior Capstone: Seminar on Reflective Teaching | 2 |
| Corequisite courses | 24 |
| Total in major | 67 |

## Inclusive Childhood Education Major

BS (54 hours in core; min. 30 hours in concentration, see concentration list)
This major prepares students to teach at the elementary level (grades 1 through 6) 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) EDUC 114, 221, 235, 240, and 314.

| Major Requirements | Credits |
| :--- | :--- |
| EDUC 114 Mathematical Concepts and Reasoning | 4 |
| EDUC 202 Topics in Professionalism | 0 |
| EDUC 217 Education and American Culture | 3 |
| EDUC 219 Educational Psychology | 3 |
| EDUC 221 Children's Literature | 3 |
| EDUC 235 Educating Exceptional Learners | 3 |
| EDUC 240 Teaching in Urban America | 2 |



| ART 132 Art and Architecture in Europe |  |
| :--- | :--- |
| ART 231 Ancient Art History |  |
| ART 232 Renaissance and Baroque Art History |  |
| ART 236 Asian Art History Survey |  |
| ART 237 Modern and Contemporary Art History | 12 |
| ART 314 Art and History of Film | 32 |
| Studio Concentration (studio coursework at or above 200 level) |  |
| Total in concentration |  |

Inclusive Childhood Education Major with Communication Concentration BS (54 hours in core; min. 30 hours in concentration)

See the Inclusive Childhood Education Major for the major requirements.

| Prerequisite | Credits |
| :---: | :---: |
| COMM 101 Presentational Speaking | 2 |
| Core Courses | Credits |
| COMM 205 Intro to Communication Theory | 3 |
| COMM 214 Intro to Mass Media | 3 |
| COMM 215 Interpersonal Communication | 3 |
| COMM 216 Organizational Communication | 3 |
| Total | 12 |
| Concentration Electives | Credits |
| Select additional Communication elective courses from the list below with input from advisor(s). At least three of your electives must carry a COMM prefix. <br> If you intend to take COMM 228, 232,243 , or 284 , you must take the prerequisite course, COMM 115: Foundations of Digital Communication. |  |
| COMM 115 Foundations of Digital Communication | 2 |
| COMM 228 Digital Video I | 4 |
| COMM 232 Intro to Web Communication | 4 |
| COMM 243 Graphic Design I | 4 |
| COMM 244 Oral Performance of Literature | 4 |
| COMM 284 Digital Imaging I | 4 |


| COMM 314 New Media and Society | 3 |
| :---: | :---: |
| COMM 316 Advanced Presentational Speaking | 2 |
| COMM 319 American Public Address | 3 |
| COMM 330 Conflict Management | 3 |
| COMM 417 Seminar in Public Communication | 2 |
| ART 314 The Art of History and Film | 4 |
| PHIL 222 Logic and Critical Thinking | 3 |
| WRIT 214 Literary Nonfiction | 3 |
| WRIT 217 Professional Writing | 3 |
| WRIT 304 Screenwriting | 3 |
| WRIT 312 Writing for Social Change | 3 |
| Total | 16 |
| Other electives must be approved by the chairs of the Communication and Education Departments. |  |
| Total in concentration | 30 |
| Inclusive Childhood Education Major with English Concentration BS (54 hours in core; min. 30 hours in concentration) |  |
| See the Inclusive Childhood Education Major for the major requirements. |  |
| Prerequisite (Choose one course from the following) | Credits |
| WRIT 101 Writing in the Liberal Arts | 3 |
| ENGL 301 Critical Approaches to Literature | 3 |
| Total | 3 |
| Core Courses | Credits |
| One course before 1700 (options include): <br> ENGL 111 English Renaissance Literature <br> ENGL 335 Major Author: Milton <br> ENGL 350 Major Author Shakespeare <br> ENGL 390 Special Topics in Literature as approved for this category | 3 |


| One course between 1700 and 1900 (options include): <br> ENGL 312 Literature in the Age of Enlightenment <br> ENGL 313 Romanticism in Literature and Culture <br> ENGL 314 Victorian Literature and Culture <br> ENGL 390 Special Topics in Literature as approved for this category | 3 |
| :--- | :--- |
| One course 1900-Present (options include): <br> ENGL 315 Modern and Contemporary Drama <br> ENGL 320 Modern and Contemporary British Poetry <br> ENGL 321 Modern and Contemporary English Fiction <br> ENGL 390 Special Topics in Literature as approved for this category | 3 |
| Major Author (options include): <br> ENGL 335 Major Author: Jane Austen, Emily Dickinson, John Milton, the Brontës, etc. <br> ENGL 350 Major Author: Shakespeare | 3 |
| Total | Credits |
| Concentration Electives | 12 |
| Select additional ENGL/WRIT elective courses with input from advisor(s). <br> (max. WRIT electives = 6 credits) <br> *EDUC 221 Children's Literature and EDUC 223 Adolescent Literature are also permissible <br> electives for this concentration. | $15-16$ |
| Total in concentration | 30 |

Inclusive Childhood Education Major with Humanities Concentration BS ( 54 hours in core; min. 30 hours in concentration)
See the Inclusive Childhood Education Major for the major requirements.

| Core Courses | Credits |
| :--- | :--- |
| HUM 101 Enduring Questions: The Ancient and Medieval World | 3 |
| HUM 102 Enduring Questions: The Early Modern World | 3 |
| HUM 201 Enduring Questions: The Modern World | 3 |
| Any ENGL course | 3 |
| Any HIST course | $3-4$ |
| Any PHIL course | $3-4$ |
| Art History or Music History (choose from the ART/MHS electives listed below) | $3-4$ |
| Total | $21-24$ |
| Concentration Electives (to reach 30 credits total for concentration) | Credits |

Any ENGL course
Any HIST course
Any PHIL course
Other Possible Electives
ART 132 Art and Architecture in Context in Europe
ART 231 Ancient Art History
ART 232 Renaissance and Baroque Art History
ART 234 Art and Architecture in Europe
ART 237 Modern and Contemporary Western Art History
ART 237 Modern and Contemporary Western Art History
ART 314 Art and History of Film
MHS 222 Introduction to Film Music
MHS 230 Music History and Literature I
MHS 254 Music of World Cultures
MHS 223 History of Rock and Roll and Commercial Music in the U.S.
MHS 280 Music History and Literature II

| Total | $6-9$ |
| :--- | :--- |
| Total in concentration | 30 |

Inclusive Childhood Education Major with Intercultural Studies Concentration BS (54 hours in core; min. 30 hours in concentration)
See the Inclusive Childhood Education Major for the major requirements.

| Core Courses | Credits |
| :--- | :--- |
| Students should attempt to complete each of the core courses prescribed below. If a <br> scheduling conflict should occur, substitutions may only be made with approval from the <br> appropriate department chair(s). |  |
| INCL 201 Introduction to Global Issues | 3 |
| INCL 243 Cultural Anthropology | 3 |
| INCL 310 Intercultural Competencies | 3-4 |
| INCL 311 Intercultural Experience | $9-13$ |
| Total | Credits |
| Concentration Electives |  |
| Select additional elective courses with input from advisor(s) to reach 30 credits total for |  |
| concentration. Suitable electives are any liberal arts courses that could be counted |  |
| towards the Intercultural Studies Major, including the following: |  |
| Core courses in the Intercultural Studies major not included above in the core for |  |
| the Intercultural Studies Concentration |  |


| Courses included in any of the Intercultural Studies Concentrations (International <br> Development, Missions, Spanish) |  |
| :--- | :--- |
| Other electives listed as suitable for the Intercultural Studies major | $17-21$ |
| Total | 30 |
| Total in concentration |  |

Inclusive Childhood Education Major with Mathematics and Science Concentration BS ( 54 hours in core; min. 30 hours in concentration)

See the Inclusive Childhood Education Major for the major requirements.

| Mathematics Courses | Credits |
| :---: | :---: |
| EDUC 114 Mathematical Concepts and Reasoning | 4 |
| MATH 181 Calculus I | 4 |
| MATH 210 Introduction to Proofs | 2 |
| MATH elective(s) <br> *The intent is that math elective(s) should be at the 200 level or higher. With permission from the chairs of the Education and Math departments, STEM 140 may be a permissible option. | 0-4 |
| Total | min. 14* |
| Science Courses (Choose courses from at least two of the following areas) | Credits |
| Biology |  |
| BIOL elective 151 or higher (if prerequisites are met) | 4 |
| BIOL elective 151 or higher (if prerequisites are met) | 4 |
| Chemistry |  |
| CHEM elective 151 or higher (if prerequisites are met) | 4 |
| CHEM elective 151 or higher (if prerequisites are met) | 4 |
| Physics |  |
| PHYS elective 151 or higher (if prerequisites are met) | 4 |
| PHYS elective 151 or higher (if prerequisites are met) | 4 |
| STEM (Up to 3 STEM 141/142 courses with different subtitles may be taken for a total of 6 credits.) |  |
| STEM 141 (meets Gen. Ed.) | 2 |


| STEM 142 (meets Gen. Ed.) | 2 |
| :--- | :--- |
| STEM 141/142 | 2 |
| Total | min. $14^{*}$ |
| *Math and science courses should be selected to reach the $30-c r e d i t ~ m i n i m u m ~ f o r ~ t h e ~$ <br> concentration. |  |
| Total in concentration | min. 30 |

Substitutions may be made under advisement and with the approval of the appropriate department chair(s).

Inclusive Childhood Education Major with Mathematics Concentration BS (54 hours in core; min. 30 hours in concentration)
See the Inclusive Childhood Education Major for the major requirements.

| Mathematics Courses | Credits |
| :--- | :--- |
| EDUC 114 Mathematical Concepts and Reasoning | 4 |
| MATH 181 Calculus I | 4 |
| MATH 182 Calculus II | 4 |
| MATH 210 Introduction to Proofs | 2 |
| Total | Credits |
| Mathematics and Computer Science Electives | 14 |
| Choose courses from the following courses: | 4 |
| CSCI 211 Programming I (optional) | 4 |
| CSCI 218 Programming II (optional) | $2-4$ |
| MATH 2XX | $2-4$ |
| MATH 2XX | $2-4$ |
| MATH 2XX | $2-4$ |
| MATH 2XX | 16 |
| Total | min. 30 |
| Total in concentration | 4 |
| Substut |  |

Substitutions may be made under advisement and with the approval of the appropriate department chair(s).

Inclusive Childhood Education Major with Music Concentration BS (54 hours in core; min. 30 hours in concentration)
See the Inclusive Childhood Education Major for the major requirements.

| Required Courses | Credits |
| :---: | :---: |
| MUS 250 Music in Christian Perspective | 2 |
| Music Theory and Musicianship Studies - Take a minimum of 16 credits from the list of approved courses below. | Credits |
| MTH 101 Music Fundamentals Review | 3 |
| MTH 102 Music Fundamentals Review | 3 |
| MTH 220 Music Theory I and MTH 221 Musicianship I | 4 |
| MTH 227 Music Theory II and MTH 228 Musicianship II | 4 |
| MTH 325 Music Theory III and MTH 326 Musicianship III | 4 |
| MTH 327 Music Theory IV and MTH 328 Musicianship IV | 4 |
| Total | min. 16 |
| Music Literature, Stylistic, and Historical Studies - Take a minimum of 9 credits from this category. | Credits |
| MLT 211 Intro to Music and Listening | 3 |
| MHS 254 Music of World Cultures | 3 |
| MHS 280 Music History and Literature II | 3 |
| Total | min. 9 |
| Ensemble Participation - Minimum four semesters of participation in major ensemble with or without credit (Credit does not count toward 30-credit minimum.) | Credits |
| Total | 0-4 |
| Electives (Take electives from the list below, as needed, to reach at least 30 credits) | Credits |
| MHS 230 Music History I | 3 |
| MHS 490 Topics in Music History | 3 |
| MLT 4XX Instrument/Vocal Literature | 2 |
| Total | 3-5 |
| Total in concentration | min. 30 |

Inclusive Childhood Education Major with Science Concentration BS ( 54 hours in core; min. 30 hours in concentration)

## See the Inclusive Childhood Education Major for the major requirements.

Note: Students concentrating in science must select courses from at least three of the disciplines listed below. Students must take at least two courses from two of the chosen disciplines.

| Biology | Credits |
| :--- | :--- |
| BIOL elective 151 or above (if prerequisites are met) | 4 |
| BIOL elective 151 or above (if prerequisites are met) | 4 |
| BIOL elective 151 or above (if prerequisites are met) | 4 |
| Chemistry | Credits |
| CHEM elective 151 or above (if prerequisites are met) | 4 |
| CHEM elective 151 or above (if prerequisites are met) | 4 |
| CHEM elective 151 or above (if prerequisites are met) | 4 |
| Physics | 4 |
| PHYS elective 151 or above (if prerequisites are met) | 4 |
| PHYS elective 151 or above (if prerequisites are met) | 4 |
| PHYS elective 151 or above (if prerequisites are met) | 4 |
| STEM (Up to 3 STEM 141/142 courses with different subtitles may be taken for a total of | Credits |
| 6 credits.) | 2 |
| STEM 141 (meets Gen. Ed.) | 2 |
| STEM 142 (meets Gen. Ed.) | 2 |
| STEM 141/142 | 2 |
| Total in concentration | 4 |

Substitutions may be made under advisement and with the approval of the appropriate department chair(s).

Inclusive Childhood Education Major with Social Studies Concentration BS (54 hours in core; min. 30 hours in concentration)
See the Inclusive Childhood Education Major for the major requirements.

| History Courses (any History electives) | Credits |
| :--- | :---: |
| HIST elective | $3-4$ |
| HIST elective | $3-4$ |
| HIST elective | $3-4$ |


| HIST elective | 3-4 |
| :---: | :---: |
| HIST elective | 3-4 |
| Total | 15-20* |
| Political Science | Credits |
| Choose one of the following courses: <br> POLS 205 In Search of Justice (meets Gen. Ed. requirement) <br> POLS 220 The American Political System <br> POLS 375 Immigration and Citizenship |  |
| Total | 3 |
| Economics | Credits |
| Select one of the following courses: <br> ECON 201 Introduction to Economics ECON 210 Principles of Microeconomics ECON 211 Principles of Macroeconomics |  |
| Total | 2-3* |
| Social Science | Credits |
| Choose two of the following classes upon consultation with your curriculum advisor: PSY 213 Developmental Psychology (or other appropriate PSY elective with the approval of the appropriate department chairs) SOC 101 Introduction to Sociology: Sociological Imagination (meets Gen. Ed.) ANTH/INCL/SOC 243 Cultural Anthropology (meets Gen. Ed.) <br> Any ECON course numbered 210 or above Any POLS course numbered 204 or above |  |
| Total | 6-8* |
| *Courses should be selected to reach the 30-credit minimum for the concentration. |  |
| Total in concentration | $\min .30$ |

Inclusive Childhood Education Major with Writing Concentration BS ( 54 hours in core; min. 30 hours in concentration)

See the Inclusive Childhood Education Major for the major requirements.

| Prerequisite (Choose one course from the following) | Credits |
| :--- | :--- |
| WRIT 101 Writing in the Liberal Arts or ENGL 301 Critical Approaches to Literature | 3 |
| Total | 3 |

Note: Students entering Houghton College with demonstrated written competency will need to select additional writing electives to ensure that they have earned a minimum of 30 credits. Credit transferred in will be applied toward the concentration.

| Core Courses | Credits |
| :--- | :--- |
| Students should attempt to complete each of the core courses prescribed below. If a <br> scheduling conflict should occur, substitutions may only be made with approval from the <br> appropriate department chair(s). |  |
| WRIT 214 Literary Nonfiction | 3 |
| At least TWO of the following: <br> WRIT 211 Narrative and Personal Essay <br> WRIT 301 Fiction <br> WRIT 302 Poetry | $6-9$ |
| Total | Credits |
| Electives | 9-12* |
| Select additional ENGL/WRIT elective courses with input from advisor(s). <br> *ENGL 202 Literary Voices is an acceptable elective for this concentration. <br> *Up to 6 credits of ENGL electives are permissible. | 15-18* |
| Total | *Courses should be selected to reach the 30-credit minimum for the concentration. |

## Education Minor: 14-16 hours

| Required Courses | Credits |
| :--- | :--- |
| EDUC 217 Education and American Culture | 3 |
| EDUC 219 Educational Psychology | 3 |
| EDUC 235 Educating Exceptional Learners | 3 |
| Total | 9 |
| Electives - Choose two of the following courses in consultation with an Education |  |
| Department faculty member. | 4 |
| EDUC 114 Mathematical Concepts and Reasoning | 3 |
| EDUC 221 Children's Literature | 2 |
| EDUC 223 Adolescent Literature | $5-7$ |
| EDUC 240 Teaching in Urban America |  |
| Total in minor electives |  |

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

## English and Writing

Susan Bruxvoort Lipscomb, Chair | http://www.houghton.edu/english-and-writing/ | 585.567.9640

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 preseminary and pre-law.

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.


| Core Requirements | Credits |
| :--- | :--- |
| ENGL 301 Critical Approaches to Literature | 3 |
| One course in literature before 1700 (examples below): <br> ENGL 213 British Literature I <br> ENGL 311 British Renaissance Literature <br> ENGL 350 Major Author: Shakespeare <br> ENGL 335 Major Author: Milton | 3 |
| One course in literature between 1700 and 1900 (examples below): <br> ENGL 312 Literature in the Age of Enlightenment <br> ENGL 313 Romanticism in Literature and Culture <br> ENGL 314 Victorian Literature and Culture <br> ENGL 338 Development of the Novel | 3 |


| One course in literature from 1900 to the present (examples below): <br> ENGL 315 Modern and Contemporary Drama <br> ENGL 320 Modern and Contemporary British Poetry <br> ENGL 321 Modern and Contemporary British Fiction <br> ENGL 361 Contemporary World Literature <br> ENGL 390 Special Topics in Literature as approved for this category | 3 |
| :---: | :---: |
| One Major Author course (examples below): <br> ENGL 350 Major Author: Shakespeare <br> ENGL 335 Major Author: Jane Austen, Emily Dickinson, John Milton, The Brontës, etc. | 3 |
| ENGL 416 Senior Capstone: Signature Presentation | 1 |
| Total | 16 |
| Electives | Credits |
| ENGL or WRIT courses, 200-level or above (max. 12 hours in WRIT) | 18 |
| Total in major | 34 |
| Writing Major <br> BA/BS (30 hours in major) |  |
| Core Requirements | Credits |
| WRIT 214 Literary Nonfiction | 3 |
| Choose two from the following: <br> WRIT 211 Narrative and Personal Essay <br> WRIT 301 Fiction <br> WRIT 302 Poetry | 6 |
| WRIT 401 Workshop | 3 |
| Total | 12 |
| Electives | Credits |
| WRIT or ENGL courses, 200-level or above (max. 9 hours in English) | 18 |
| Total in major | 30 |
| EDUC 221 may be used by majors in Inclusive Childhood Education to count for the Writing major. |  |
| Minors |  |
| English Minor: 12 hours <br> Students choosing a minor in English are required to take ENGL literature courses totaling 12 hours. |  |

Writing Minor: 12 hours
A student may obtain a Writing minor by completing 12 hours of WRIT courses above the 100level.

## General Education

John Rowley, Director | http://www.houghton.edu/academics/generaleducation/

## Houghton College General Education Requirements

The core of a liberal arts education at Houghton is found in the College's General Education requirements, which all students must satisfy. The General Education requirements embody an interdisciplinary vision of the skills, content, and ways of thinking that, in the words of the Houghton College mission statement, "equip students to lead and labor as scholar-servants in a changing world."

The General Education Requirements consist of nine course content areas: Biblical and Theological Studies, Mathematics, Natural Sciences, Writing, Humanities, Social Sciences, Arts, Wellness, and Language and Culture.
The specific outlines for the BA/BS/BFA and BMus degrees can be found below. PDF versions of these outlines can also be accessed on the Registrar's Office website. For more information on General Education Requirements for transfer students, see the Transfer Admission Information.

| Requirements <br> BA/BS/BFA General Education Requirements <br> BMus General Education Requirements |  |  |
| :---: | :---: | :---: |
|  |  |  |
|  |  |  |
| General Education Requirements - BA/BS/BFA |  |  |
| Credits | Course | Notes |
|  | Biblical and Theological Studies |  |
| 9 | BIBL 101 Biblical Literature (3) |  |
|  | THEL 209 Introduction to Christianity (3) | THEL 209 met by Honors in London |
|  | Additional BIBL or THEL course (3) |  |
|  | Mathematics |  |
| 2-4 | Choose one of the following: <br> STEM 140 Reason \& Abstraction (2) <br> MATH 141 Mathematical Explorations <br> (2) <br> Any MATH course numbered 160 or higher $(2-4)$ <br> DSCI 151 Data Science for Beginners (3) | Also met by Science Honors |


|  | DSCI 152 Data Science Fundamentals <br> (3) <br> DSCI 211 Data Science I (4) |  |
| :---: | :---: | :---: |
|  | Natural Sciences |  |
| 4 | STEM 141 Science as a Human Endeavor (2) | Entire category met by Science Honors, completing science major or minor, 16 hrs of lab science courses, or BIOL 207 |
|  | STEM 142 Science and Society (2) |  |
|  | Writing |  |
| 6 | WRIT 101 Writing in the Liberal Arts | Also met by SAT verbal score greater than 600, ACT Writing score greater than 26 or Science Honors |
|  | One Writing-Enriched Course (from the following): <br> BIBL 482 Senior Capstone: Senior Seminar <br> BIOL 482 Senior Capstone: Senior <br> Seminar <br> CHEM 335 Biochemistry II Lab <br> CHEM 361 Physical Chemistry I <br> ENGL 301 Critical Approaches to <br> Literature <br> EDUC 485 Senior Capstone: Seminar on Reflective Teaching <br> IDEV 482 Senior Capstone: <br> International Development Seminar <br> IDEV 484 Integrative Senior Seminar <br> INCL 482 Senior Capstone: <br> Intercultural Seminar <br> MATH 482 Senior Capstone: Math <br> Seminar <br> MED 419 Student Teaching Seminar <br> MHS 230/280: Music History and <br> Literature $1 / 2^{+}$ <br> PHYS 482 Senior Capstone: Physics <br> Seminar <br> PSY 480 Senior Capstone: Seminar in Psychology <br> WRIT 211 Narrative and Personal Essay <br> WRIT 214 Literary Non-Fiction <br> WRIT 217 Professional Writing <br>  <br> Culture <br> WRIT 301 Writing Fiction | Also met by Honors in London ${ }^{+}$Both Music History and Literature 1 and 2 must be taken to fulfill the WritingEnriched requirement. |


|  | WRIT 307 Writing about Spiritual Experience <br> WRIT 312 Writing for Social Change WRIT 320 Special Topics: Feature Writing WRIT 325 Writing Reviews |  |
| :---: | :---: | :---: |
|  | Humanities |  |
| 9 | HUM 101 The Ancient and Medieval World (3) | Entire category met by Honors in London |
|  | HUM 102 The Early Modern World (3) |  |
|  | HUM 201 The Late-Modern World (3) |  |
|  | Social Sciences |  |
| 6 | Choose two of the following courses with different prefixes: <br> COMM 205 Introduction to Communication Theory COMM 214 Introduction to Mass Media <br> ECON 210 Principles of Microeconomics ECON 211 Principles of Macroeconomics INCL /ANTH/SOC 243 Cultural Anthropology ${ }^{\ddagger}$ POLS 205 In Search of Justice PSY 111 Introduction to Psychology SOC 101 Introduction to Sociology | Half this requirement met by Honors in London or Science Honors <br> ${ }^{\ddagger}$ Cultural Anthropology meets either Social Sciences or Changing World requirement, not both. |
|  | Art and Music |  |
| 2-4 | Any one course with an ART prefix or one of the following music courses: MHS 222 Introduction to Film Music MHS 230 Music History and Literature I <br> MHS 254 Music of World Cultures MHS 223 History of Rock and Roll and Commercial Music in the U.S. <br> MHS 256 Music and Global Cultures from a Christian Perspective ${ }^{+}$ MHS 280 Music History and Literature II MLT 211 Music and Listening MTH 101 Music Fundamentals I MTH 102 Music Fundamentals II | Also met by Honors in London <br> ${ }^{+}$Music and Global Cultures from a Christian Perspective+ meets either Fine Arts or Changing World requirement, not both. |


|  | Two semesters of Music Ensemble |  |
| :---: | :---: | :---: |
|  | Transitions |  |
| 0/1 | INTS 102 or 104 Transitions: Succeeding at Houghton College (0/1) |  |
|  | Wellness |  |
| 0-3 | One of the following: <br> EQST course numbered 225 or higher with a weekly riding lab PHED/SRWM 105 Wellness for Life PHED 115 Personal Health and Wellness <br> PHED/SRWM 120 Lifetime Sports PHED/SRWM 237 Holistic Health PHED 330 Physiology of Exercise SRWM 109 Highlander Adventure SRWM 220 Adventure Sports One season of participation in intercollegiate athletics ${ }^{1}$ | ${ }^{1}$ Athletes will verify their participation by enrolling in one of the following: INTS 20 Intercollegiate Baseball (NC), INTS 21 Intercollegiate Basketball (NC), INTS 22 Intercollegiate Cross-country (NC), INTS 23 Intercollegiate Field Hockey (NC), INTS 26 Intercollegiate Lacrosse (NC), INTS 27 Intercollegiate Track/Field (NC), INTS 28 Intercollegiate Softball (NC), INTS 29 Intercollegiate Soccer (NC), INTS 30 Intercollegiate Tennis (NC) or INTS 31 Intercollegiate Volleyball (NC) |
|  | Changing World |  |
| 6 | Choose two courses in the study of a world or Biblical language, the study of the contemporary global world, or some combination thereof: Any SPAN/FREN/GERM/HEBR/GREK language course 3-4-credit language course taken while on study abroad ANTH/SOC 315 Human Ecology COMM/INCL 225 Intercultural Communication EDUC 240 Teaching in Urban America (for Education majors and minors only) ENGL 361 Contemporary World Literature ENST 201 Environment and Society IDEV 338 Issues in Development INCL 201 Introduction to Global Issues INCL/ANTH/SOC 243 Cultural Anthropolog $y^{\ddagger}$ | Half of this requirement met by Honors in London <br> ${ }^{\ddagger}$ Cultural Anthropology meets either Social Sciences or Changing World requirement, not both. <br> ${ }^{+}$Music and Global Cultures from a Christian Perspective meets either Fine Arts or Changing World requirement, not both. |


|  | INCL/ANTH 310 Intercultural |  |
| :--- | :--- | :--- |
|  | Competencies |  |
|  |  |  |
| Leadership |  |  |
| INCL/MISS 361 Engaging the Muslim |  |  |
|  | World <br> LING 220 Introduction to Linguistics <br> LING 312 Sociolinguistics <br> MHS 256 Music and Global Cultures <br> from a Christian Perspective |  |
|  | MISS 242 Missions and the Global <br> Church |  |
|  | POLS/HIST/HUM 247 Switzerland: A <br> Case Study in European Politics and <br> Culture |  |
|  | PSY 318 Psychology of Race and <br> Racism <br> SOC 350 Culture Change and <br> Globalization |  |
| $44-52$ | Total |  |

## General Education Requirements - BMus

| Credits | Courses | Notes |
| :---: | :--- | :--- |
| 6 | Biblical and Theological Studies | BIBL 101 Biblical Literature <br> THEL 209 Introduction to Christianity |
|  | Mathematics | THEL 209 met by Honors in London |
| $2-4$ | Choose one of the following: <br> STEM 140 Reason \& Abstraction <br> MATH course (numbered 160 or <br> higher) <br> DSCI 151 Data Science for Beginners <br> DSCI 152 Data Science Fundamentals <br> DSCI 211 Data Science I | Also met by Science Honors |
|  | Natural Sciences |  |
| 2 | Choose one of the following: <br> STEM 141 Science as a Human <br> Endeavor or <br> STEM 142 Science and Society | Entire category met by Science <br> Honors, completing science major or <br> minor, 16 hrs of lab science courses, or <br> BIOL 207 |
|  | Writing |  |


| 3 | WRIT 101 Writing in the Liberal Arts or MHS 230/280: Music History and Literature 1/2 | Also met by SAT verbal score greater than 600, ACT Writing score greater than 26, or Science Honors |
| :---: | :---: | :---: |
|  | Humanities |  |
| 6 | Two of the following: <br> HUM 101 The Ancient and Medieval <br> World (3) <br> HUM 102 The Early Modern World (3) <br> HUM 201 The Late-Modern World (3) | Also met by Honors in London |
|  | Transitions |  |
| 0/1 | INTS 102 or 104 Transitions: <br> Succeeding at Houghton College (0/1) |  |
|  | Changing World |  |
| 3 | One course in the study of either a world language or the contemporary global world (choose from the following): <br> Any SPAN/FREN/GERM/HEBR/GREK language course <br> 3-4-credit language course taken while on study abroad ANTH/SOC 315 Human Ecology COMM/INCL 225 Intercultural Communication EDUC 240 Teaching in Urban America <br> (For Education majors and minors only) <br> ENGL 361 Contemporary World <br> Literature <br> ENST 201 Environment and Society <br> IDEV 338 Issues in Development <br> INCL 201 Introduction to Global Issues <br> INCL/ANTH/SOC 243 Cultural <br> Anthropology ${ }^{\ddagger}$ <br> INCL/ANTH 310 Intercultural <br> Competencies <br> INCL/BADM 343 Multicultural Teams <br> \& Leadership <br> INCL/MISS 361 Engaging the Muslim <br> World <br> LING 220 Introduction to Linguistics <br> LING 312 Sociolinguistics | Entire category met by Honors in London |


|  | MHS 256 Music and Global Cultures from a Christian Perspective ${ }^{+}$ MISS 242 Missions and the Global Church POLS/HIST/HUM 247 Switzerland: A Case Study in European Politics and Culture PSY 318 Psychology of Race and Racism SOC 350 Culture Change and Globalization |  |
| :---: | :---: | :---: |
|  | Additional Electives |  |
| 9 | 9 hours of additional electives from the following list with different prefixes: <br> Any ART prefix course without a prerequisite <br> Any ENGL prefix course without a prerequisite <br> Any HIST prefix course without a prerequisite <br> Any PHIL prefix course without a prerequisite <br> Any WRIT prefix course without a prerequisite <br> ANTH/INCL/SOC 243 Cultural <br> Anthropology <br> COMM 101 Presentational Speaking COMM 205 Introduction to Communication Theory COMM 214 Introduction to Mass Media ECON 210 Principles of Microeconomics ECON 211 Principles of Macroeconomics POLS 205 In Search of Justice PSY 111 Introduction to Psychology SOC 101 Introduction to Sociology |  |
| 31-34 | Total |  |

## Greatbatch School of Music*

David Clem, Dean | http://www.houghton.edu/music/ | 585.567.9400

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*See the Graduate Bulletin for information regarding graduate curricula, faculty, and courses.
Majors
Composition
Music Education - Instrumental emphasis (MEI)
Music Education - Vocal emphasis (MEV)
Music Industry
Music Performance - Instruments: Brass, Guitar, Percussion, Strings, or Woodwinds
Music Performance - Organ
Music Performance - Piano
Music Performance - Voice
Music with Non-Music Elective Studies
Music (BA)
```

Faculty

| Matthew Amedio | Christopher Ashbaugh | Daniel David Black | Carlton Campbell |
| :--- | :--- | :--- | :--- |
| David Clem | Judy Congdon | Amanda K. Cox | Jason Davis |
| Jason Decker | Jonathan Dozois | Mark Hodges | Sharon L. Johnson |
| Soo Yeon Kim | Megan Kyle | Anton Machleder | Carrie Magin |
| Sara Massey | Angela McBrearty | Timothy McGarvey | Kimberly Prins Moeller |
| William J. Newbrough | Luke Ogden | Gilbert Pease | Russell Scarbrough |
| Roy Smith | Suzanne Thomas | Rintaro Wada | Kathleen Weller |

## Majors

## Music Composition Major

BMus (81-99 hours)
The BMus degree in Music Composition provides a foundation for further study at the graduate level or the abilities to pursue a career in a number of fields, including but not limited to film-scoring, orchestrating and arranging, publishing, music administration, copyist work, worship leadership, and performance. Students will study a wide variety of musical styles and processes in the traditional Western canon in addition to $20^{\text {th }}$-century art music, jazz, and commercial styles while developing their own compositional skills and artistic voice.

Students pursuing the BMus in Music Composition must take a total of 19 credits of Applied Composition. During the junior year and fall of the senior year, students must take 3 credits per semester. For all other semesters, students may elect 2 or 3 credits (no less than 2), but it is recommended to register for 3 credits whenever possible, especially in the first year. A Senior Capstone Recital is required of all BMus Composition students.

The Senior Capstone Recital requirement for compositional applied study is a full-hour recital of original compositions or a half-hour recital of original compositions in addition to an original work of significant length and form programmed as a separate performance. All performances occur in the senior year. The Senior Capstone Recital should include a varied selection of works with differing instrumentation and scope supported by an accompanying notated score and program notes for each presented piece. All programming decisions are to be approved by the student's applied instructor of composition. Students are required to have current versions of Finale or Sibelius notation software programs upon entering applied study in Music Composition.

Students are also expected to complete applied study in their principal instrument or voice in addition to their compositional applied study. If the instrumental applied study area is not piano, BMus Music Composition students must complete six piano proficiency benchmarks with a minimum of 2 credit hours of study at or above PIAN 201 to meet the degree requirement.

Anyone whose principal instrument is woodwind, brass, or percussion must register for and participate as needed in both Symphony Orchestra and Wind Ensemble unless excused by both the ensemble's directors and the Dean of the Greatbatch School of Music.

All students enrolled in any music degree program at the Greatbatch School of Music at Houghton College must take the Music Theory Placement Test upon arriving on campus to begin their studies. Students needing additional experience and fluency in Music Theory and Musicianship will be required to enroll in the Music Fundamentals I and II (MTH 101 and 102) remedial track before entering the standard sequence of courses.

| Corequisite | Credits |
| :--- | :--- |
| BADM 303 Entrepreneurship | 3 |


| Course Requirements |  | 49-56 |
| :---: | :---: | :---: |
| MUS 250 Music in Christian Perspective |  | 2 |
| MUS 229 Basic Conducting |  | 2 |
| MBCM 121 Music Technology Basics |  | 1 |
| MTH 466 Orchestration |  | 3 |
| MCHU 151 Melodic Improvisation |  | 1 |
| MTH 220, 221, 227, 228, 325, 326, 327, 328 Theory \& Musicianship |  | 16 |
| MHS 230, 280 Music History and Literature I-II |  | 6 |
| MHS 256 Music and Global Cultures in Christian Perspective |  | 3 |
| MBCM 215 Intro to Music Publishing and Marketing |  | 3 |
| MTH 467 Systems of Analysis and Contemporary Music |  | 3 |
| PIAN XXX Complete Piano Proficiency Benchmarks 1-8 |  | 1-8 |
| At least one course chosen from MTH 458, MTH 463, MHS 490, or MTH courses numbered 500 and above, with permission |  | 3 |
| Electives-any School of Music prefix outside of ensembles and lessons in student's primary performance area |  | 5 |
| Applied |  | 29-40 |
| COMP 201-402 Applied Composition |  | 19 |
| PERF 485 Senior Capstone: Senior Recital |  | 0 |
| Primary Instrument: Piano <br> Minimum 7 hours applied piano lessons at or above 301 | Primary Instrument: Non-Piano <br> Applied instrument lessons minimum. 5 hrs at or above 301 Applied piano lessonsminimum. 2 PIAN hours at or above 201 | 7 |
| MUS Ensembles (with or without credit - each semester of residence) |  | 3 |
| Total in major |  | 81-99 |

*As a culminating experience in any BMus curriculum, the degree candidate shall successfully complete the senior capstone experience. Composition majors must prepare and successfully present a full senior composition recital as detailed earlier in this section.

## Music Education (PK-12)

Students pursuing majors in music education will begin applied study in their primary instrument at level 201 in the freshman year, taking 1 credit per semester in the freshman year and then taking 3 credits per semester in the sophomore and junior years and 3 credits during the semester they do not student teach in their senior year. These lessons culminate in a Senior Recital that, together with the successful completion of student teaching and its attendant seminar, comprises the Capstone experience.

The Senior Recital requirement for music education majors is a solo half-hour recital of repertoire designed in collaboration with the student's instrumental or vocal applied instructor, occurring in the senior year.
If the instrumental applied study area is not piano, music education students must complete six piano proficiency benchmarks.

The 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 path within the Houghton College Teacher Education area is by application, and continuation in the program requires meeting the standards outlined below. The Teacher Education Committee considers 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 teacher education students must demonstrate acceptable evidence of professional dispositions for admittance into and continuation along this path.

To be recommended for teacher certification, students must earn a final course grade of C or higher in all EDUC, concentration, and/or content major courses.

For admission to the appropriate path within the Houghton College Teacher Education area, a student must do the following:

- Complete an application (completed in EDUC 202)
- Receive formal sophomore review approval from the Music faculty
- Successfully complete the writing sample assessment
- Present a cumulative GPA of at least 2.5
- Demonstrate acceptable evidence of a professional disposition
- Receive formal approval from the Teacher Education Committee

To be approved for music student teaching, a student must do the following:

- 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 or the end of the second week of the fall semester prior to the requested spring semester placements
- Have successfully completed all appropriate music education courses as outlined in the College catalog
- Have completed MED 210 and 211 and 100 clock hours of observation in public or private schools
- Have successfully completed all required professional education courses: EDUC 217, 219, and 235
- Present a cumulative GPA of at least 2.7
- Demonstrate acceptable evidence of a professional disposition
- Complete all State-mandated training sessions required for certification by the end of the sophomore year (completed in EDUC 202)
- Complete all required contact hours
- Receive formal approval from the Teacher Education Committee
- Complete piano proficiency benchmarks I-VIII


## Music Education Major with Instrumental Emphasis (MEI)

BMus (95-101 hours, 56-62 hours in music courses; 39 hours in professional education)

| Music Requirements | 17 |
| :--- | :--- |
| INST 201-402 Applied Concentration (minimum 9 hours at or above INST 401) | 1 |
| MED 200 Vocal Methods (instrumental primaries only) | 0 |
| PERF 485 Senior Capstone: Senior Recital | 2 |
| MUS 229 Basic Conducting | $0-1$ |
| MUS 341 Jazz Workshop | 2 |
| MUS 429 Advanced Conducting | 0 |
| MUS XXX Ensembles (7 semesters, with or without credit) | $1-6$ |
| PIAN XXX Complete Piano Proficiency Benchmarks 1-6 (instrumental concentration <br> only) | 6 |
| MHS 230, 280 Music History and Literature I-II | 2 |
| MUS 250 Music in Christian Perspective | 3 |
| MHS 256 Music and Global Cultures in Christian Perspective | 2 |
| MTH 105 Introduction to Composition and Arranging | 16 |
| MTH 220, 221, 227, 228, 325, 326, 327, 328 Theory* | 3 |
| MTH 466 Orchestration |  |


| MBCM 121 Music Technology Basics | 1 |
| :---: | :---: |
| Total | 56-62 |
| *All students enrolled in any music degree program at the Greatbatch School of Music at Houghton College must take the Music Theory Placement Test upon arriving on campus to begin their studies. Students needing additional experience and fluency in Music Theory and Musicianship may be required to enroll in the Music Fundamentals I and II (MTH 101 and 102) remedial track before entering the standard sequence of courses. |  |
| Professional Education Requirements | Credits |
| EDUC 202 Topics in Professionalism | 0 |
| EDUC 219 Educational Psychology | 3 |
| EDUC 217 Education and American Culture | 3 |
| EDUC 235 Educating Exceptional Learners | 3 |
| MED 210 Field Experience in Music Education | 2 |
| MED 211 Workshop: Language Acquisition and Literacy Development | 2 |
| MED 227-242 Strings, Brass, Percussion, Woodwind Techniques | 2,2,2,2 |
| MED 351 Elementary School Methods | 2 |
| MED 354 Instrumental Methods | 2 |
| EDUC 400 Student Teaching and Certification Orientation | 0 |
| MED 403 Music Education Student Teaching: Elementary Level | 6 |
| MED 404 Music Education Student Teaching: Secondary Level | 6 |
| MED 419 Student Teaching Seminar | 2 |
| Total | 39 |
| Total in major | 96-102 |

*As a culminating experience in any BMus curriculum, the degree candidate shall successfully complete the senior capstone experience. Music Education majors prepare and present a solo half-recital and successfully complete music student teaching and its attendant seminar (MED 403, 404, 419).

Anyone whose principal instrument is woodwind, brass, or percussion must register for and participate as needed in both Symphony Orchestra and Wind Ensemble unless excused by both the ensemble's director and the Dean of the GSoM.

## Music Education Major with Vocal Emphasis (MEV)

BMus (96-102 hours, 56-62 hours in music courses; 39 hours in professional education courses)

| Music Requirements | Credits |
| :---: | :---: |
| VOIC 201-402 Applied Concentration (minimum 9 hours at or above VOIC 401) | 17 |
| MHS 256 Music and Global Cultures in Christian Perspective | 3 |
| MCHU 151 Melodic Improvisation | 1 |
| MBCM 121 Music Technology Basics | 1 |
| PERF 485 Senior Capstone: Senior Recital | 0 |
| PIAN XXX Complete Piano Proficiency Benchmarks 1-6 (voice applied only) | 1-6 |
| MHS 230, 280 Music History and Literature I-II | 6 |
| MUS 219-220 Foreign Language Diction | 1,1 |
| MUS 250 Music in Christian Perspective | 2 |
| MUS 472 Vocal Pedagogy | 2 |
| MUS 229 Basic Conducting | 2 |
| MUS 429 Advanced Conducting | 2 |
| MUS XXX Ensembles (7 semesters, with or without credits; all semesters must include a choral ensemble.) | 0 |
| MUS 353 Lyric Theatre | 0-1 |
| MTH 105 Introduction to Composition and Arranging | 2 |
| MTH 220, 221, 227, 228, 325, 326, 327, 328 Theory* | 16 |
| Total | 57-63 |
| *All students enrolled in any music degree program at the Greatbatch School of Music at Houghton College must take the Music Theory Placement Test upon arriving on campus to begin their studies. Students needing additional experience and fluency in Music Theory and Musicianship may be required to enroll in the Music Fundamentals I and II (MTH 101 and 102) remedial track before entering the standard sequence of courses. |  |
| Professional Education Requirements | Credits |
| EDUC 202 Topics in Professionalism | 0 |
| EDUC 219 Educational Psychology | 3 |
| EDUC 217 Education and American Culture | 3 |


| EDUC 235 Educating Exceptional Learners | 3 |
| :--- | :--- | :--- |
| MED 210 Field Experience in Music Education | 2 |
| MED 211 Workshop: Language Acquisition and Literacy Development | 2 |
| MED 351 Elementary School Methods | 2 |
| MED 352 Secondary Choral Methods | 2 |
| EDUC 400 Student Teaching and Certification Orientation | 0 |
| MED 403 Music Education Student Teaching: Elementary Level | 6 |
| MED 404 Music Education Student Teaching: Secondary Level | 6 |
| MED 419 Student Teaching Seminar | 2 |
| MED 227-242 Strings, Brass, Percussion, Woodwind Techniques | $2,2,2,2$ |
| Total | 39 |
| Total in major | $96-102$ |

*As a culminating experience in any BMus curriculum, the degree candidate shall successfully complete the senior capstone experience. Music Education majors prepare and present a solo half-recital and successfully complete music student teaching and its attendant seminar (MED 403, 404, 419).

## Music Industry Major

BS (83-95 hours)
Houghton's Music Industry major focuses on the most current business and industry practices, cutting-edge music recording and production techniques, and artistic and musical excellence.

Each student receives applied instruction starting the first day of classes using the latest equipment in our recording studios, multiple live concert venues, and a music technology lab.
Our hands-on approach, coupled with extensive classroom training, internships, and professional mentorships, prepares students for a variety of careers in the ever-evolving global industry.

| Prerequisite Courses (if needed) | Credits |
| :--- | :--- |
| MTH 101, 102 Music Fundamentals I, II | 3,3 |
| Corequisite | 3 |
| BADM 303 Entrepreneurship | Credits |
| Major Requirements |  |


| Music core (34): |  |
| :---: | :---: |
| INST 201-202 Applied Music (8 hours at or above INST 201) | 8 |
| MUS XXX Ensembles (each semester of residence) | 0 |
| MUS 229 Basic Conducting | 2 |
| MUS 250 Music in Christian Perspective | 2 |
| MHS 280 Music History and Literature II | 3 |
| MHS 256 Music and Global Cultures in Christian Perspective | 3 |
| MCHU 151 Melodic Improvisation | 1 |
| MTH 105 Introduction to Composition and Arranging | 2 |
| MTH 220, 221, 227, 228, 325, 326 Theory and Musicianship | 12 |
| PIAN XXX Complete Piano Proficiency Benchmarks 1-6 | 1-6 |
| Music Industry core (34): |  |
| MUS 181 Practicum in Music Industry (required each semester, with or without credit; must take at least 1 credit) | 1-8 |
| MBCM 201 Intro to Music Technology and Recording Arts | 3 |
| MBCM 206 Introduction to Music Business | 3 |
| MBCM 215 Introduction to Music Publishing and Marketing | 3 |
| MHS 223 History of Rock and Roll and Commercial Music in the U.S. | 3 |
| MBCM 225 Survey of the Music Industry | 3 |
| MBCM 320 Artist Management and Development | 3 |
| MBCM 331 Legal Issues in the Music Industry | 3 |
| MBCM 415 Web Based Tools for the Music Industry and Worship Arts | 3 |
| MBCM 489 Senior Capstone - Music Industry Internship | 3 |
| MBCM 307 Advanced Music Production | 3 |
| MUS 207 Introduction to Pro Tools | 3 |
| Business Core (12): |  |
| BADM 202 Accounting and Finance for Non-Financial Managers | 3 |
| BADM 203 Survey of Business | 3 |
| BADM 213 Business Law I | 3 |
| BADM 201 Business Communication | 3 |

## Music Performance Majors

Performance curricula give initial preparation for careers as solo performers in concert, recording, or church fields; accompanists or private studio teachers; professional ensemble members; junior college or Bible school faculty; or college teachers (after advanced study). Practical experience in teaching is desirable during junior/senior years. The highest level of performance is expected.
All students enrolled in any music degree program at the Greatbatch School of Music at Houghton College must take the Music Theory Placement Test upon arriving on campus to begin their studies. Students needing additional experience and fluency in Music Theory and Musicianship may be required to enroll in the Music Fundamentals I and II (MTH 101 and 102) remedial track before entering the standard sequence of courses.

Anyone whose principal instrument is woodwind, brass, or percussion must register for and participate as needed in both Symphony Orchestra and Wind Ensemble unless excused by both the ensemble's director and the Dean of the Greatbatch School of Music.

Music Performance Major - Instruments: Brass, Guitar, Percussion, Strings, or Woodwinds
BMus (81-88 hours)

| Corequisite | Credits |
| :--- | :--- |
| BADM 303 Entrepreneurship | 3 |
| Major Requirements | $43-50$ |
| PIAN XXX Complete Piano Proficiency Benchmarks 1-8 | $1-8$ |
| MUS 229 Basic Conducting | 2 |
| MUS 250 Music in Christian Perspective | 2 |
| MHS 230, 280 Music History and Literature I-II | 6 |
| MHS 256 Music and Global Cultures in Christian Perspective | 3 |
| MTH 220, 221, 227, 228, 325, 326, 327, 328 Theory and Musicianship | 16 |
| Choose one of the following courses: | 2 |
| MED 227 String Techniques |  |


| MED 240 Percussion Techniques |  |
| :--- | :--- |
| MED 241 Brass Techniques |  |
| MED 242 Woodwind Techniques | 2 |
| MTH 105 Introduction to Composition and Arranging | 1 |
| MCHU 151 Melodic Improv | 1 |
| MBCM 121 Music Technology Basics | 3 |
| Upper Level MTH or MHS chosen from MTH 466, MTH 467, MHS 490, and any 500-level <br> MTH or MHS course | 4 |
| Electives-any School of Music prefix outside of ensembles and lessons in student's <br> primary area. | 35 |
| Applied | 28 |
| INST 301-402 Major Applied Studies (minimum of 16 hours at or above INST 401) |  |
| INST 101 and Applied minor in major family | 4 |
| PERF 385 Junior Recital* | 0 |
| PERF 485 Senior Capstone: Senior Recital* | 0 |
| Ensembles—each semester of residence (0-1 credit), minimum of 3 semesters for credit | 3 |
| Total in major | $81-88$ |

*As a culminating experience in any BMus curriculum, the degree candidate shall successfully complete the senior capstone experience. Performance majors prepare and successfully present two public performances of literature on the principal instrument: the junior/senior recital sequence MUS 385/485.

## Music Performance Major - Organ

BMus (81 hours)

| Corequisite | Credits |
| :--- | :--- |
| BADM 303 Entrepreneurship | 3 |
| Major Requirements | 42 |
| MUS 229 Basic Conducting | 2 |
| MUS 250 Music in Christian Perspective | 2 |


| MUS 470 Organ Pedagogy | 2 |
| :--- | :--- |
| MHS 230, 280 Music History and Literature I-II | 6 |
| MHS 256 Music and Global Cultures in Christian Perspective | 3 |
| MLT 470 Organ Literature | 2 |
| MTH 220, 221, 227, 228, 325, 326, 327, 328 Theory and Musicianship | 16 |
| MTH 105 Introduction to Composition and Arranging | 2 |
| Upper Level MTH or MHS chosen from MTH 466, MTH 467, MHS 490, and any 500-level <br> MTH or MHS course | 3 |
| MCHU 151 Melodic Improvisation | 1 |
| MCHU 476 Service Playing Organ | 2 |
| MBCM 121 Music Technology Basics | 1 |
| Applied | 36 |
| ORGN 301-402 Piano (minimum 16 hours at or above ORGN 401) | 28 |
| INST 101-102 Applied music in minor family (piano strongly recommended) | 4 |
| PERF 385 Junior Recital* | 0 |
| PERF 485 Senior Capstone: Senior Recital* | 0 |
| MUS - ensembles each semester of residence (0-1, minimum of 4 semesters of credit) | 4 |
| Total in major (not including prerequisites) | 81 |

*As a culminating experience in any BMus curriculum, the degree candidate shall successfully complete the senior capstone experience. Performance majors prepare and successfully present two public performances of literature on the principal instrument: the junior/senior recital sequence MUS 385/485.

## Music Performance Major - Piano

BMus (81 hours)

| Corequisite | Credits |
| :--- | :--- |
| BADM 303 Entrepreneurship | 3 |
| Major Requirements | 42 |


| MUS 229 Basic Conducting | 2 |
| :--- | :--- |
| MUS 250 Music in Christian Perspective | 2 |
| MUS 477 Piano Pedagogy | 2 |
| MHS 230, 280 Music History and Literature I-II | 6 |
| MHS 256 Music and Global Cultures in Christian Perspective | 3 |
| MLT 480 Piano Literature | 2 |
| MTH 220, 221, 227, 228, 325, 326, 327, 328 Theory and Musicianship | 16 |
| MTH 105 Introduction to Composition and Arranging | 2 |
| Upper Level MTH or MHS chosen from MTH 466, MTH 467, MHS 490, and any 500-level <br> MTH or MHS course | 3 |
| MCHU 151 Melodic Improvisation | 1 |
| MCHU 475 Keyboard Service Playing | 2 |
| MBCM 121 Music Technology Basics | 1 |
| Applied | 36 |
| PIAN 301-402 Piano (minimum 16 hours at or above PIAN 401) | 28 |
| INST 101-102 Applied music in minor family (organ strongly recommended) | 4 |
| PERF 385 Junior Recital* | 4 |
| PERF 485 Senior Capstone: Senior Recital* | 81 |
| Total in major (not including prerequisites and corequisites) | 2 |

*As a culminating experience in any BMus curriculum, the degree candidate shall successfully complete the senior capstone experience. Performance majors prepare and successfully present two public performances of literature on the principal instrument: the junior/senior recital sequence MUS 385/485.

## Music Performance Major - Voice

BMus (81-88 hours)
The minimum requirement for Vocal Performance majors is 6 hours (or equivalent) of beginning language: one year of French (FREN 101, 102) or German (GERM 101, 102) or some combination thereof.* Vocal Performance majors may satisfy these requirements via placement exam, CLEP, or AP exam.
*Italian language may be substituted for either French or German in extraordinary circumstances. This action must be approved by the Coordinator of Vocal Studies in conjunction with the Dean of the Greatbatch School of Music.

| Corequisites | Credits |
| :---: | :---: |
| FREN 101, 102 OR GERM 101, 102* | 6 |
| BADM 303 Entrepreneurship | 3 |
| Major Requirements | 47-54 |
| PIAN 101 Piano Proficiency Benchmarks | 1-8 |
| MLT 460 Vocal Literature | 2 |
| MUS 229 Basic Conducting | 2 |
| MHS 256 Music and Global Cultures in Christian Perspective | 3 |
| MHS 230, 280 Music History and Literature I-II | 6 |
| MUS 219-220 Foreign Language Diction | 2 |
| MUS 250 Music in Christian Perspective | 2 |
| MUS 472 Vocal Pedagogy | 2 |
| MTH 220, 221, 227, 228, 325, 326, 327, 328 Theory and Musicianship | 16 |
| MTH 105 Intro to Composition and Arranging | 2 |
| Upper Level MTH or MHS chosen from MTH 466, MTH 467, MHS 490, and any 500-level MTH or MHS course | 3 |
| MCHU 151 Melodic Improvisation | 1 |
| MBCM 121 Music Technology Basics | 1 |
| Electives—any School of Music prefix outside of ensembles and lessons in student's primary area | 4 |
| Applied | 31 |
| VOIC 301-402 Voice (minimum 16 hours at or above VOIC 401) | 28 |
| PERF 385 Junior Recital | 0 |
| PERF 485 Senior Capstone: Senior Recital | 0 |


| Ensembles each semester of residence (0-1 credit; minimum of 3 semesters for credit) | 3 |
| :--- | :--- |
| Total in major (not including prerequisites and corequisites) | $81-88$ |

*Applied Voice majors must complete 6 hours (or equivalent) (equivalent to 1st year of college instruction) French and or German (Italian may be substituted; see catalog for details). May be satisfied via placement exam, CLEP, or AP.

As a culminating experience in any BMus curriculum, the degree candidate shall successfully complete the senior capstone experience. Performance majors prepare and successfully present two public performances of literature on the principal instrument: the junior/senior recital sequence MUS 385/485.

## Music with Non-Music Elective Studies

BMus (81-96 hours; 60 hours in music; 18-33 hours in non-music electives)
This innovative, flexible curriculum provides an excellent option for musicians to combine a passion for music with other interests and talents, providing the opportunity to combine indepth study 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 permit.

| Corequisites | Credits |
| :--- | :--- |
| BADM 303 Entrepreneurship | 3 |
| Music Requirements | 2 |
| MUS 229 Basic Conducting | 2 |
| MUS 250 Music in Christian Perspective | 0 |
| MUS XXX Ensembles (with or without credit - each semester of residence) | 3 |
| MHS 256 Music and Global Cultures in Christian Perspective | 6 |
| MHS 230, 280 Music History and Literature I-II | 2 |
| PIAN XXX Complete piano proficiency benchmarks 1-8 | 16 |
| MTH 105 Intro to Composition and Arranging | 1 |
| MTH 220, 221, 227, 228, 325, 326, 327, 328 Music Theory and Musicianship | 1 |
| MCHU 151 Melodic Improvisation | 2 |
| MBCM 121 Music Technology Basics | 2 |


| Upper level MTH or MHS chosen from MTH 466, MTH 467, MHS 490, and any 500-level <br> MTH or MHS course | 3 |
| :--- | :--- |
| Electives -any School of Music prefix (total music hours must equal 60) | $0-6$ |
| Senior Capstone - thesis, internship, or recital | $0-3$ |
| Applied | 17 |
| INST 201-401 Major Applied Studies (minimum 3 hours at or above INST 401) | 60 |
| Total (must equal 60) | $18-33$ |
| Non-music elective studies (must include the minor in any discipline offering a minor) <br> Minimum 18 hours in a discrete discipline | $81-96$ |
| Total in major |  |

As a culminating experience in any BMus curriculum, the degree candidate shall successfully complete the senior capstone experience. The BMus with Non-Music Elective Studies degree candidate shall

- 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;
- prepare a paper or project examining some aspect of music, either alone or in relationship to another field of inquiry; or
- participate in an internship appropriate to the major or majors chosen.


## Music Major <br> BA (45-55 hours)

| Corequisite | Credits |
| :--- | :--- |
| BADM 303 Entrepreneurship | 3 |
| Major Requirements | 6 |
| MHS 230, 280 Music History and Literature I-II | 2 |
| MUS 250 Music in Christian Perspective | 12 |
| MTH 220, 221, 227, 228, 325, 326, Theory and Musicianship | $1-8$ |
| PIAN XXX Complete piano proficiency benchmarks 1-8 | 3 |
| MHS 256 Music and Global Cultures Christian Perspective |  |


| MBCM 121 Music Technology Basics | 1 |
| :--- | :--- |
| MTH 105 Composition and Arranging | 2 |
| MUS 229 Basic Conducting | 2 |
| MCHU 151 Melodic Improvisation | 1 |
| Electives in Music (211 or above) | 4 |
| Senior Capstone - recital, thesis or internship | $0-3$ |
| Applied | 8 |
| INST XXX Applied Music, 1 hour per semester (minimum 6 hours at or above INST 201) | 8 |
| Ensembles, each semester of residence | $0-1$ |
| Total in major | $45-55$ |

As a culminating experience in the Music major, the degree candidate shall

- 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;
- prepare a paper or project examining some aspect of music, either alone or in relationship to another field of inquiry; or
- 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 on the Greatbatch School of Music website. 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 Bible 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 Greatbatch School of Music director's approval.

Anyone whose principal instrument is woodwind, brass, or percussion must register for and participate as needed in both Symphony Orchestra and Wind Ensemble unless excused by both the ensemble's director and the Dean of the Greatbatch School of Music.
The recital attendance requirement is 10 performances per semester for BA/BS majors and 14 for BMus majors every semester of residence.

## Minors

## Applied Music Minor: 16 hours

Sixteen hours in one performance area (minimum 8 hours at or above 201 level and one year in an appropriate ensemble), normally consisting of 14 hours of applied study and 2 hours of ensemble. A hearing is required to establish appropriate placement of study. Limited enrollment in some areas based on teacher availability.

| Instrumental and Vocal Requirements: voice, violin, viola, violoncello, double bass, <br> guitar, trumpet, French horn, trombone, euphonium, tuba, flute, oboe, clarinet, <br> saxophone, bassoon, percussion |  |
| :--- | :--- |
| 14 hours of applied music | 14 |
| 2 hours of ensemble | 2 |
| Total in minor | 16 |


| Piano Requirements | Credits |
| :--- | :--- |
| 14 hours of piano | 14 |
| 2 hours of ensemble | 2 |
| Total in minor | 16 |


| Organ Requirements | Credits |
| :--- | :--- |
| 14 hours of organ | 14 |
| 2 hours of ensemble | 2 |
| Total in minor | 16 |


| Keyboard | Credits |
| :--- | :--- |
| 14 hours of piano and organ combined | 14 |
| 2 hours of ensemble | 2 |
| Total in minor | 16 |

## Elective Music Minor: 16 hours

The Elective Minor in Music is a special 16 -hour concentration of selected courses developed to meet the student's individual interests as approved by the director of the Greatbatch School of Music. It may include some applied and/or ensemble work but requires a minimum of 8 credits
of coursework other than applied lessons or ensembles. The course of study agreed upon by the student and department is placed on file in the Registrar's Office.

Music Industry Minor: 17 hours

| Required Courses | Credits |
| :--- | :--- |
| MTH 220 Music Theory I | 3 |
| MTH 221 Musicianship I | 1 |
| MTH 227 Music Theory II | 3 |
| MTH 228 Musicianship II | 1 |
| MBCM 206 Introduction to Music Business | 3 |
| MUS 207 Introduction to Pro Tools | 3 |
| MUS 208 Pro Tools Production I | 3 |
| MUS 181 Practicum in Sound and Recording | 0 |
| Total in minor | 17 |

History, Politics, and Philosophy
Peter C. Meilaender, Chair | http://www.houghton.edu/history/ |
585.567.9440

The History major involves a strong liberal arts concentration. The major provides an excellent background for careers in law, ministry, public administration, government service, college and secondary teaching, business, and foreign service and preparation for archivists, museum curators, historic site specialists, librarians, editors, and writers.

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 and an understanding of how those concepts and problems shape and inform the domestic politics of the U.S.; 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 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.
Majors
History (with Augmented Requirements)
History
Philosophy
Politics, Philosophy, and Economics
Political Science
Minors
History
Law and Constitutional Studies
Philosophy
Political Science
Pre-Professional
Pre-Law Interest

| Faculty |  |
| :---: | :---: |
| Christian Esh Heidi Giannini Benjamin J. B. Lipscomb |  |
| Peter C. Meilaender Francesca Silano |  |
| Majors |  |
| History (with Augmented Requirements) <br> BA (32 hours + 39 hours for Adolescence Education Major); for certification at secondary level only |  |
| Core Requirements | Credits |
| ECON 210 Principles of Microeconomics or ECON 211 Principles of Macroeconomics | 3 |
| HIST 299 Historical and Political Research | 1 |
| HIST XXX American History (must take two) | 6 |
| HIST XXX European History (must take two) | 6 |
| HIST XXX Non-European, non-American History | 3 |
| POLS 220 American Political System | 3 |
| HIST/IDEV/INCL/POLS XXX Global Studies (course approved by department chair) | 3 |
| Total | 25 |
| Plus 7 hours in either History or Political Science | Credits |
| HIST XXX History elective | 3 |
| HIST 480 Senior Capstone in History and Political Science | 4 |
| or |  |
| POLS XXX Political Science elective (must be 300 or 400 level) | 3 |
| POLS 480 Senior Capstone in History and Political Science | 4 |
| Total in major (including Adolescence Education major) | 71 |
| History Major <br> BA (30 hours in major; 4-6 corequisite hours) |  |
| Corequisite | Credits |
| Two semesters of a foreign language; one semester may be replaced by a credit-bearing international travel experience in a non-Anglophone country. | 4-6 |
| Core Requirements | Credits |
| HIST/POLS 299 Historical and Political Research | 1 |


| HIST XXX American history | $3-4$ |
| :--- | :--- |
| HIST XXX European history | $3-4$ |
| HIST XXX Non-American, non-European history | $3-4$ |
| HIST/POLS 480 Senior Capstone in History and Political Science | 4 |
| Total | $14-17$ |
| Elective Courses | Credits |
| Any HIST courses numbered 200 or above (to bring total number of credits for major to 30 <br> plus corequisite) | $13-16$ |
| Total in major | $34-36$ |

## Philosophy Major

BA (33 hours)
Houghton Philosophy majors are free to explore a wide range of questions whose answers strengthen the foundation of one's worldview and assist one to think through the relationships of all branches of knowledge and practice within the Christian faith. Work within other disciplines rests on philosophical commitments regarding the ways we know, the nature of reality, and basic human values. (This is one reason all Houghton students are required to study the discipline of 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 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.

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.

| Core Requirements | Credits |
| :--- | :--- |
| PHIL 201 Ethics | 3 |
| PHIL 222 Logic and Critical Thinking | 3 |


| A second course in normative thought (chosen from PHIL 240, 250, 260, 275, or 370 or as approved) | 3 |
| :---: | :---: |
| PHIL 231 Topics in Premodern Philosophy (repeatable for elective when topics are diverse) | 3 |
| PHIL 232 Topics in Modern Philosophy (repeatable for elective when topics are diverse) | 3 |
| PHIL 255 Reason \& Religious Belief | 3 |
| A second course in philosophical theology (any PHIL course cross-listed as THEL) | 3 |
| PHIL 395 Philosophy Colloquium | 1 |
| PHIL 495 Senior Seminar: Philosophy Colloquium | 2 |
| Total | 24 |
| Philosophy Electives | Credits |
| Philosophy electives (minimum 9 hours) | 9 |
| Total in major | 33 |
| Politics, Philosophy and Economics Major BA (40 hours in major; 10-13 corequisite hours) |  |
| Corequisites | Credits |
| POLS 212/SOC 312 Social Science Research Methods | 3-4 |
| PHIL 222 Logic and Critical Thinking | 3 |
| Two semesters of a foreign language; one semester may be replaced by a credit-bearing international travel experience in a non-Anglophone country. | 4-6 |
| Total | 10-13 |
| Core Requirements | Credits |
| ECON 210 Principles of Microeconomics | 3 |
| ECON 211 Principles of Macroeconomics | 3 |
| PHIL 201 Ethics | 3 |
| PHIL 231 Topics in Premodern Philosophy | 3 |
| PHIL 232 Topics in Modern Philosophy | 3 |
| POLS 205 In Search of Justice or POLS 260 Introduction to Political Thought | 3-4 |
| POLS 220 The American Political System or POLS 426 Constitutional Law or POLS 455 American Constitutional History | 3-4 |


| POLS 230 Intro to International Relations or POLS 437 International Law \& Organization | $3-4$ |
| :--- | :--- |
| PPE 480 PPE Capstone: Qualifying Examinations | 2 |
| Total | $26-29$ |
| Elective Courses | Credits |
| Chosen from POLS, PHIL, ECON to bring total number of credits for major to 40 | $11-14$ |
| Total in major | $50-53$ |

## Political Science Major

BA (30 hours in major; 4-6 corequisite hours)

| Corequisite | Credits |
| :--- | :--- |
| Two semesters of a foreign language; one semester may be replaced by a credit-bearing <br> international travel experience in a non-Anglophone country. | $4-6$ |
| Core Requirements | Credits |
| POLS 205 In Search of Justice | $3-4$ |
| POLS 212/SOC 312 Social Science Research Methods | $3-4$ |
| POLS 220 The American Political System | $3-4$ |
| POLS 230 Introduction to International Relations | $3-4$ |
| POLS 260 Introduction to Political Thought | $3-4$ |
| POLS/HIST 299 Historical and Political Research | 1 |
| POLS/HIST 480 Senior Capstone in History and Political Science | 4 |
| Total | $20-25$ |
| Political Science Electives | Credits |
| POLS electives (to bring total number of credits for major to 30 plus corequisite; up to 4 hours | $5-10$ |
| may be an internship) | $34-36$ |
| Total in major | 3 |

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.

## Minors

## History Minor: 12 hours

12 hours of history courses numbered 200 or above (at least 4 discrete courses)

## Law and Constitutional Studies: 15 hours

| Required Courses | Credits |
| :--- | :--- |
| POLS 205 In Search of Justice or POLS 220 The American Political System | $3-4$ |
| HIST 455 American Constitutional History or HIST 360 Early American Republic | $3-4$ |
| Elective Options to bring minor to $\mathbf{1 5}$ hours |  |
| BADM 213 Business Law I | $3-4$ |
| BADM 214 Business Law II | $3-4$ |
| HIST 361 Civil War and Industrial America, 1848-1918 | $3-4$ |
| HIST 362 Modern American History, 1918 to the Present | $3-4$ |
| PHIL 222 Logic and Critical Thinking | $3-4$ |
| PHIL/POLS 237 Just War? | $3-4$ |
| PHIL/POLS 275 Philosophy of Law | $3-4$ |
| POLS/PHIL 260 Introduction to Political Thought | $3-4$ |
| POLS 437 International Law | $3-4$ |
| Any core courses listed above not used to satisfy core requirements | $7-9$ |
| Total | 15 |
| Total in minor |  |

Philosophy Minor: 12 hours

| Required Courses | Credits |
| :--- | :--- |
| Choose at least one course from the following: |  |
| PHIL 231: Topics in Premodern Philosophy (various options) | 3 |
| PHIL 232: Topics in Modern Philosophy (various options) |  |
| Additional Required Philosophy Courses |  |
| 9 hours of Philosophy electives | 12 |
| Total in minor |  |

## Political Science Minor: 12 hours

12 hours of POLS coursework (at least 4 discrete courses)
Pre-Professional Preparation

## Pre-Law Interest

Faculty Advisor: Christian Esh
From the Mosaic law of the Pentateuch to 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 $21^{\text {st }}$ 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.Isac.org) recommend precisely this sort of preparation for students planning to attend law school.
The study of pre-law is built around a personal, individualized relationship with the College's pre-law advisor. Students considering law school come from all majors and minors; no particular major is required. The pre-law advisor works with each student to develop a study that complements the student's chosen major by emphasizing the development of analytical thinking; habits of thoroughness, intellectual curiosity, and 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 advisor also encourages students to consider additional forms of relevant preparation, such as internships in local law offices or opportunities for research and field experience. The advisor works closely with the Office of Vocation and Calling on matters such as LSAT preparation and the law school application process. Those interested in pre-law also sponsor various events, including the College's annual Constitution Day celebration and an associated reading group; excursions to law offices, courtrooms, or regional points of interest; and visits with members of Houghton's extensive network of alumni attorneys.

In addition to attending law school, pre-law students discover a range of callings, including graduate work in political science, philosophy, or business as well as careers in law-related fields such as criminal justice, sociology, development, and journalism. The preparation required for success in law school translates well to many professions.

## Honors at Houghton

## Benjamin J. B. Lipscomb, Director / <br> http://www.houghton.edu/academics/Honors-at-Houghton/

Houghton College offers various honors opportunities centered on two first-year experiences: the London Honors semester and Science Honors. Students who have completed one of these first-year experiences are entitled to enroll in a variety of 1-credit honors seminars throughout their college career. Qualified students have the option to write an honors thesis in their major discipline during their senior year. Honors thesis eligibility is not limited to students who have participated in one of the two first-year honors experiences.

Select prospective students are invited to apply for admission into one of the first-year experiences. The next year's honors students are selected by May each year. Students in these tracks are expected to achieve at least a 2.5 GPA in their first semester; failure to do so will trigger review by the Director of Honors.

## Areas of Study

London Honors
Science Honors

## London Honors

18 hours (2 in fall, 16 in spring)
The London honors curriculum focuses on the origins and development of the modern West with some attention to West/non-West interactions. Following a fall pro-seminar on ancient and medieval background, the curriculum is delivered in London, England, taking advantage of the museums, galleries, performance venues, and other resources of the city. Meets the following General Education requirements: THEL 209, the Writing-Enriched course requirement, Humanities, half of the Social Sciences requirement, Art and Music, and half of the Changing World requirement.

## Science Honors

12 hours (3 in fall, 5 in spring, 4 in Mayterm)
Director: Aaron Sullivan
The integrative, problem-based Science Honors curriculum comprises 12 hours of coursework in the fall and spring semesters and Mayterm and is team-taught by faculty from biology, chemistry, physics, communication, and writing. Meets the following General Education requirements: Natural Sciences, Mathematics, WRIT 101, and half of the Social Sciences requirement.

## Houghton College Buffalo

Symphony Circle and East Side
http://www.houghton.edu/buffalo/ | 716.222.9615
Area of Study
AA (62 hours)
This program is a fixed curriculum in the liberal arts taught in a cohort model. At least 30 hours, including at least 18 of the last 24 , must be from Houghton College. This program is taught at the Symphony Circle and East Side sites in Buffalo, NY. See the description of the Associate of Arts (AA) degree for specific requirements.

## Interdisciplinary Studies

## Peter C. Meilaender, Director of Humanities /

http://www.houghton.edu/catalog/

## Majors

Humanities
Interdisciplinary Studies

Minors
Military Leadership

American Language and Cultures<br>Global Humanities

## Majors

## Humanities Major

BA (39-41 hours)
The interdisciplinary major in Humanities gives students the opportunity to craft a flexible and personalized course of study drawing upon diverse fields in the humanities and humanistic social sciences. It appeals especially to students with broad interest who desire a classic liberal arts experience. The major encourages students to learn the methodologies of several disciplines, trace interrelations among them, and study common themes and issues from various perspectives. Intensive and extensive study in the intellectual, social, ethical, and aesthetic movements of Western culture culminates in a senior capstone in which the student must synthesize at least two different humanities disciplines in an integrative research project.
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. The major involves the departments of History, Politics, and Philosophy; English and Writing; Religion and Global Service; Art; and Music.

| Corequisite | Credits |
| :--- | :--- |
| Two semesters of a foreign language; one semester may be replaced by a credit- <br> bearing international travel experience in a non-Anglophone country. | $4-6$ |
| Core Requirements | Credits |
| Courses numbered 210 or higher are to be drawn from the following prefixes: <br> BIBL, ENGL, HIST, HUM, MHS, PHIL, REL, and THEL. Also eligible are courses in art <br> history and foreign languages. Other appropriate courses may be used with the <br> approval of the Humanities chair. Note: Courses must be drawn from at least four <br> different disciplines with no more than four courses from a single discipline <br> counting towards the major. | 33 |
| HUM 481 Senior Capstone in Humanities | 2 |
| Total in major | $39-41$ |

Interdisciplinary Studies Major
BA/BS (33-52 hours)
This major is for students who wish to pursue a multidisciplinary 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 major on the transcript will be "Interdisciplinary Studies."

Interested students must fill out an application (available on the Registrar's Office website) and create a proposal including a name for the course of study, a rationale for its 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 areas (in consultation with appropriate departmental faculty), the Registrar, the Director of General Education, and the Office of the Dean of the Faculty. The Office of the Dean of the Faculty will report these approvals to the Academic Council, which, in turn, will report them to the faculty. Proposals will not be considered approved until this reporting is completed.

## Minors

## Military Leadership Minor: 12 hours (ROTC at Houghton, through St. Bonaventure

## University - Army)

Houghton College students may participate in the Reserve Officer Training Corps (ROTC) 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. 100and 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 St. Bonaventure University campus, are open only to students under contract with the U.S. Army. Houghton students have done well in competition for scholarships, which cover full tuition and books plus a modest living allowance.

American Language and Cultures Minor: 18 hours

| Required Courses | Credits |
| :--- | :--- |
| IAE 122 Academic English Speaking | 4 |
| IAE 123 Academic English Writing | 4 |
| COMM 101 Presentational Speaking | 2 |
| WRIT 101 Writing in the Liberal Arts | 4 |
| HIST 220 American History Survey | 4 |
| Total in minor | 18 |

This minor is restricted to students whose primary language is not English.

## Global Humanities Minor: 15 hours

15 hours of courses from the following with no more than two courses from
Credits non-HUM prefixes:

ART 231, 232, 236, 237

ENGL 361
HIST 250, 336, 337, 441
HUM 247, 348, 351, 382
MHS 256
REL 215, 221, 222, 231
PHIL 231
THEL 221, 222
Up to 3 credits of a foreign language
Other courses by approval of the Director of the Center for Global Humanities

| Total in minor | 15 |
| :--- | :--- |

## Mathematics

Rebekah B. Johnson Yates, Chair | http://www.houghton.edu/math/ | 585.567.9280

In a Mathematics major, you will learn critical thinking and problem-solving skills that equip you to ask and answer big questions, preparing you to respond more effectively to Christ's call in your life. The Mathematics major includes coursework exploring mathematical concepts and computation with an emphasis on mathematical reasoning and proof. The major prepares students to work both collaboratively and independently and develops oral and written communication of mathematics. This combination of content, reasoning, and communication 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 mathematics, education, architecture, law, health professions, and computer science.

## Major

Mathematics

Minor
Mathematics

Faculty
Brandon Bate Jill E. Jordan Rebekah B. Johnson Yates

## Major

## Mathematics Major

BA (32 hours in core; 3-4 corequisite hours; 4-8 prerequisite hours)

| Prerequisite Courses | Credits |
| :--- | :--- |
| MATH 181 Calculus I or MATH 161 Calculus for the Life Sciences | 4 |


| Corequisite Courses | Credits |
| :--- | :--- |
| Choose cognate course(s) to equal 3-4 hours from Investment Management (BADM 407), <br> Marketing Research (BADM 319), Corporate Finance (BADM 310), General Chemistry I <br> (CHEM 151), Programming I (CSCI 211), Data Science I (DSCI 211), Principles of <br> Microeconomics (ECON 210), Principles of Macroeconomics (ECON 211), Introduction to <br> Engineering Design (ENGR 171), Intro to Linguistics (LING 220), any Music Theory course <br> (MTH XXX), Logic and Critical Thinking (PHIL 222), History and Philosophy of Science (PHIL <br> 360), General Physics I (PHY 151), Science Honors, or Advanced Spanish Grammar and <br> Composition (SPAN 350). Students are encouraged to select additional courses from the <br> cognate list. |  |
| Core Requirements | Credits |
| MATH 182 Calculus II | 4 |
| MATH 210 Introduction to Proofs | 2 |
| MATH 261 Linear Algebra | 4 |
| MATH 325 Real Analysis I | 4 |
| MATH 361 Abstract Algebra I | 4 |
| MATH 482 Senior Capstone: Mathematics Seminar | 2 |
| Mathematics electives* (above 210): At least 4 hours must be at 300 or 400 level | 12 |
| Total | 32 |
| Total in major | $35-36$ |

Often, Math majors will take more math courses than the minimum requirements. This is strongly recommended for those planning to attend graduate school.
*We recommend teachers of math choose MATH 333 Probability and Statistics I or MATH 351 Modern Geometries.

## Minor

## Mathematics Minor: 12 hours

12 hours in mathematics courses numbered 182 and higher
Online Programs*
Kenneth Schenck, Director of Houghton College Online I
http://www.houghton.edu/online/ | 800-777-2556 |
online@houghton.edu
*See the Department of Online Programs Student Handbook for information regarding the policies and procedures that govern student enrollment in our online programs. Also see the Online Current Student Page for other important information.

Houghton College Online offers 100\% online degrees in Business, Criminal Justice, Human Resources Management, Integrated Marketing Communication, Leadership Development, Organizational Management, Psychology, and Liberal Arts. Houghton College Online offers two graduate degrees: an MS in Literacy Education and an MBA.


| Criminal Justice BA (36-38 hours in major) |  |
| :---: | :---: |
| Core Requirements | Credits |
| COMM 215 Interpersonal Communication | 3 |
| CRJ 201 Introduction to Criminal Justice | 3 |
| PHIL 303 Organizational Ethics | 3 |
| PSY/BADM 309 Statistics | 4 |
| PSY 310 Experimental Methods or POLS 212/SOC 312 Social Science Research Methods | 4 |
| CRJ 480 Senior Capstone Seminar | 3 |
| Total | 20 |
| Electives | Credits |
| Criminal Justice Majors must choose elective courses from the following list to total 17-18 credits: |  |
| COMM 330 Conflict Management | 3 |
| CRJ 301 Police Operations and Procedures | 3 |
| CRJ 305 Courts, Judgements, and Alternative Consequences | 3 |
| CRJ 310 Correction, Probation and Restorative Justice | 3 |
| CRJ 211, 311, 411 Special Topics in Criminal Justice | 3 |
| CRJ 410 Internship in Criminal Justice | 0-6 |
| POLS 220 The American Political System | 3-4 |
| POLS 270 Introduction to Public Policy | 3-4 |
| POLS/PHIL 275 Philosophy of Law | 3 |
| POLS 426 Constitutional Law | 3-4 |
| PSY 301 Psychology of Personality | 3 |
| PSY 305 Abnormal Psychology | 3 |
| PSY 314 Child Psychopathology | 3 |
| PSY 318 Psychology of Race \& Racism | 3 |
| PSY 335 Drugs \& Behavior | 3 |
| PSY 402 Counseling \& Psychotherapy | 3 |
| PSY/SOC 218 Social Psychology | 3 |


| SOC 231 Criminology | 3 |
| :--- | :--- |
| WRIT 217 Professional Writing | $2-3$ |
| Total | $17-18$ |
| Total in major | $36-38$ |

## Human Resources Management Major

BBA/BS (24 in core; 21 in major-specific requirements)
The Human Resources Management major equips students to handle a company's most precious resource: its people.

Students will learn about the ethical, legal, and social factors that shape today's workforce.
Courses will cover a variety of subjects from recruitment and training to labor laws, compensation, and benefits.

This major is offered in two different degrees: BS and BBA. The Human Resources
Management major is available fully online. Please contact Admission at online@houghton.edu for further information.

| Core Requirements | Credits |
| :--- | :--- |
| See Core Courses for all Business-Related Majors | 24 |
| Major-Specific Requirements | Credits |
| BADM 314 Human Resources Management | 3 |
| BADM 345 Employment Law | 3 |
| BADM 446 Staffing and Performance Management | 3 |
| BADM 450 Managing Total Rewards: Compensation and Benefits | 3 |
| Choose three courses from options listed below to total a minimum of 9 credits | 9 |
| BADM 203 Survey of Business |  |
| BADM 320 Leadership Development |  |
| BADM 330 Operations Management | 21 |
| BADM 341 Work-Team Dynamics |  |
| BADM/INCL 343 Multicultural Teams and Leadership |  |
| BADM 414 Workplace Excellence |  |
| BADM 448 Employee Training and Development |  |
| COMM 330 Conflict Management |  |
| Total |  |

```
Total in major

\section*{Integrated Marketing Communication Major \\ BBA/BS (45 credits)}

The Integrated Marketing Communication major will develop a defined competence in the communication components of marketing, including advertising, public relations, marketing events, and electronic initiatives. The focus is to enable students to assume a marketing or promotions role with the ability to understand, manage, and implement an expected set of professional tasks.

This major is offered in two different degrees: BS and BBA. The Integrated Marketing Communication major is available fully online. Please contact Admission at online@houghton.edu for further information.
\begin{tabular}{|c|c|}
\hline Core Requirements & Credits \\
\hline See Core Courses for all Business-Related Majors & 24 \\
\hline Major-Specific Requirements & Credits \\
\hline BADM/COMM 304 Social Media Marketing & 3 \\
\hline BADM/COMM 312 Advertising Principles & 3 \\
\hline BADM/COMM 315 Public Relations Principles & 3 \\
\hline BADM 319 Marketing Research & 3 \\
\hline Choose three courses from options listed below to total a minimum of 9 credits & 9 \\
\hline BADM 303 Entrepreneurship & \\
\hline BADM 325 Project Management & \\
\hline BADM 341 Work-Team Dynamics & \\
\hline COMM 214 Introduction to Mass Media & \\
\hline COMM 216 Organizational Communication & \\
\hline COMM 232 Introduction to Web Communication & \\
\hline COMM 314 New Media and Society & \\
\hline PSY/SOC 218 Social Psychology & \\
\hline Total & 21 \\
\hline Total in major & 45 \\
\hline
\end{tabular}

\footnotetext{
Leadership Development Major
BBA/BS (45 credits)
}

The Leadership Development major is an intentional and creative blend of theory and evaluation of application. Students will acquire and practice supervision and leadership skills, including effective communication, critical thinking, collaborative teambuilding, and complex leadership problem-solving skills, all of which can immediately be applied in all sizes and types of organizations.

This major is offered in two different degrees: BS and BBA. The Leadership Development major is available fully online. Please contact Admission at online@houghton.edu for further information.
\begin{tabular}{|c|c|}
\hline Core Requirements & Credits \\
\hline See Core Courses for all Business-Related Majors & 24 \\
\hline Major-Specific Requirements & Credits \\
\hline BADM 320 Leadership Development & 3 \\
\hline BADM 448 Employee Training and Development & 3 \\
\hline COMM 215 Interpersonal Communication & 3 \\
\hline COMM 330 Conflict Management & 3 \\
\hline Choose three courses from options listed below to total a minimum of 9 credits & 9 \\
\hline BADM 203 Survey of Business & \\
\hline BADM 303 Entrepreneurship & \\
\hline BADM 314 Human Resources Management & \\
\hline BADM/COMM 315 Public Relations Principles & \\
\hline BADM 341 Work-Team Dynamics & \\
\hline BADM/INCL 343 Multicultural Teams and Leadership & \\
\hline BADM 446 Staffing and Performance Management & \\
\hline PSY/SOC 218 Social Psychology & \\
\hline Total & 21 \\
\hline Total in major & 45 \\
\hline
\end{tabular}

\section*{Organizational Management Major \\ BBA/BS (45 credits)}

The Organizational Management major provides the background and expertise needed for supervisory and administrative roles in a wide variety of organizations from manufacturing to human services and healthcare to banking.

This major is offered in two different degrees: BS and BBA. The Organizational Management major is available fully online. Please contact Admission at online@houghton.edu for further information.
\begin{tabular}{|l|l|}
\hline Core Requirements & Credits \\
\hline See Core Courses for all Business-Related Majors & 24 \\
\hline Major-Specific Requirements & Credits \\
\hline BADM 314 Human Resources Management & 3 \\
\hline BADM 325 Project Management & 3 \\
\hline BADM 330 Operations Management & 3 \\
\hline BADM 341 Work Team Dynamics & 3 \\
\hline Choose three courses from options listed below to total a minimum of 9 credits & 9 \\
\hline BADM 203 Survey of Business & \\
\hline BADM 303 Entrepreneurship & \\
\hline BADM/COMM 315 Public Relations Principles & \\
\hline BADM 320 Leadership Development & 21 \\
\hline BADM/INCL 343 Multicultural Teams and Leadership & 45 \\
\hline BADM 345 Employment Law & \\
\hline BADM 448 Employee Training and Development & \\
\hline COMM 330 Conflict Management & \\
\hline Total & Total in major \\
\hline
\end{tabular}

\section*{Psychology Major}

BA/BS (39 hours)
A Psychology BA enables students to understand why we think, feel, and act as we do. Psychology majors gain perspective on their own experiences, develop sympathetic understanding of others, and learn ways to help people in need. The Psychology major is available fully online. Please contact Admission at online@houghton.edu for further information.

\section*{Corequisite}

PSY 111 Introduction to Psychology
\begin{tabular}{|c|c|}
\hline PSY/BADM 309 Statistics & 4 \\
\hline PSY 310 Experimental Methods & 4 \\
\hline PSY 354 Brain and Behavior & 4 \\
\hline PSY 480 Senior Capstone Seminar & 3 \\
\hline Total & 15 \\
\hline General Track & Credits \\
\hline One developmental course from the following: & 3 \\
\hline PSY 213 Developmental Psychology & \\
\hline PSY 217 Adolescence and Emerging Adulthood & \\
\hline PSY 220 Culture and Human Development & \\
\hline PSY 230 Lifespan Development of the Family & \\
\hline PSY 321 Adult Development and Aging & \\
\hline PSY 340 Cognitive Development & \\
\hline One social course from the following: & 3 \\
\hline PSY 218 Social Psychology & \\
\hline PSY 320 Stereotyping and Prejudice & \\
\hline PSY 342 Social Neuroscience & \\
\hline PSY 337 Social Cognition & \\
\hline One clinical course from the following: & 3 \\
\hline PSY 301 Psychology of Personality & \\
\hline PSY 305 Abnormal Psychology & \\
\hline PSY 314 Child Psychopathology & \\
\hline One integrative issues course from the following: & 3 \\
\hline PSY 301 Psychology of Personality & \\
\hline PSY 306 Psychology of Religion & \\
\hline PSY 318 Psychology of Race and Racism & \\
\hline PSY 401 History and Systems of Psychology & \\
\hline One neuroscience course from the following: & 3 \\
\hline PSY 335 Drugs and Behavior & \\
\hline
\end{tabular}
\(\left.\begin{array}{|l|l|}\hline \text { PSY } 342 \text { Social Neuroscience } & \\
\hline \text { PSY } 451 \text { Learning \& the Brain } & 6 \\
\hline \text { Psychology electives to total } 39 \text { credits (beyond PSY 111) } & \\
\hline \begin{array}{l}\text { Note: The same course may not count towards two sections (i.e., PSY } 301 \text { may count for } \\
\text { either a clinical or integrative course but not both; PSY } 342 \text { may count for either a social } \\
\text { course or a neuroscience course but not both). }\end{array} & \\
\hline & \text { Total in major }\end{array}\right]\)\begin{tabular}{l} 
\\
\hline
\end{tabular}

Psychology Major - Restorative Justice Track
BA (15 hours in core; 21 in track; 3 corequisite hours)
\begin{tabular}{|c|c|}
\hline Corequisite & Credits \\
\hline PSY 111 Introduction to Psychology & 3 \\
\hline Core Requirements & \\
\hline BADM/PSY 309 Statistics & 4 \\
\hline PSY 310 Experimental Methods & 4 \\
\hline PSY 354 Brain and Behavior & 4 \\
\hline PSY 480 Senior Capstone Seminar & 3 \\
\hline Total & 15 \\
\hline Restorative Justice Track & Credits \\
\hline COMM 330 Conflict Management or PSY 402 Counseling \& Psychotherapy or PSY 350 Cultural Competencies for Practice & 3 \\
\hline CRJ 201 Introduction to Criminal Justice & 3 \\
\hline CRJ 310 Correction, Probation, and Restorative Justice & 3 \\
\hline PSY 218 Social Psychology or PSY 342 Social Neuroscience or PSY 337 Social Cognition & 3 \\
\hline PSY 301 Psych of Personality or PSY 305 Abnormal Psych or PSY 314 Child Psychopathology & 3 \\
\hline PSY 320 Stereotyping and Prejudice or PSY 318 Psychology of Race and Racism & 3 \\
\hline PSY 325 Human Sexuality or PSY 335 Drugs and Behavior & 3 \\
\hline Total & 21 \\
\hline Psychology and/or Criminal Justice Electives (optional) & \\
\hline Total in major & 39 \\
\hline
\end{tabular}

\section*{Associate of Applied Science - Christian Ministries}

AAS (minimum of 60 hours)
The Christian Ministries curriculum is a two-year program leading to an AAS degree. The course of study requires a minimum of 60 hours and provides a strong Bible-centered preparation for Christian service in the church or mission field.

The curriculum consists of 24 hours in General Education requirements and 36 hours in required Bible, theology, and ministry courses.

See the Department of Religion and Global Service for detailed information.

\section*{Associate of Arts - Liberal Arts}

Students seeking to complete the AA degree must earn a cumulative GPA of 2.0 or higher. At least 30 hours, including at least 18 of the last 24, must be earned at Houghton College. The specific qualifications for earning the AA degree are outlined below.

In addition to the general AA degree requirements above, students must complete the following:
1. A total of 62 semester hours, 47 of which must be Liberal Arts
2. 40 hours of General Education courses:
- Required courses - In each category, students must earn at least the minimum number of credits and may count up to the maximum towards the 40 hours of required General Education credits.
- 6-9 hours of Biblical and Theological Studies
- 6-9 hours of Humanities
- 3-6 hours of Changing World
- 3-6 hours of Social Science
- 3-6 hours of Writing
- 2-4 hours of Art or Music
- 2-4 hours of Math
- 2-4 hours of Natural Science
- 0-1 hour of Wellness
- The remaining hours may be used for electives, an area of focus, or a minor.

\section*{Associate of Science - Business}

AS (minimum of 62 hours)
The AS in Business curriculum consists of 32 hours in General Education requirements, 24 hours in business and 6 hours in related electives.
\begin{tabular}{|l|l|}
\hline General Education & Credits \\
\hline WRIT 101 Writing in the Liberal Arts & 3 \\
\hline BIBL 101 Biblical Literature & 3 \\
\hline THEL 209 Introduction to Christianity & 3 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|}
\hline Art/Music electives & 2-4 \\
\hline Humanities electives & 6 \\
\hline Math/Computer Science/Data Science electives & 2-4 \\
\hline Natural Science electives & 2-4 \\
\hline Social Science electives & 3-6 \\
\hline Changing World elective & 3 \\
\hline Total & 32 \\
\hline Business & Credits \\
\hline BADM 201 Business Communication & 3 \\
\hline BADM 202 Accounting and Finance Principles & 3 \\
\hline BADM 212 Principles of Management & 3 \\
\hline BADM/COMM 218 Marketing Principles & 3 \\
\hline ECON 201 Introduction to Economics & 3 \\
\hline PHIL 303 Organizational Ethics & 3 \\
\hline Total & 18 \\
\hline Business Electives & Credits \\
\hline BADM 203 Survey of Business & 3 \\
\hline BADM 303 Entrepreneurship & 3 \\
\hline BADM/COMM 304 Social Media Marketing & 3 \\
\hline BADM/PSY 309 Statistics & 3-4 \\
\hline BADM/COMM 312 Advertising Principles & 3 \\
\hline BADM 314 Human Resources Management & 3 \\
\hline BADM/COMM 315 Public Relations Principles & 3 \\
\hline BADM 320 Leadership Development & 3 \\
\hline BADM 325 Project Management & 3 \\
\hline BADM 330 Operations Management & 3 \\
\hline BADM 341 Work-Team Dynamics & 3 \\
\hline BADM 345 Employment Law & 3 \\
\hline COMM 330 Conflict Management & 3 \\
\hline Total electives & 12 \\
\hline
\end{tabular}
```

Total in degree

Associate of Science - Criminal Justice AS (minimum of 62 hours)
The AS in Criminal Justice curriculum consists of 32 hours in General Education requirements, 24-25 hours in criminal justice, and 5-6 hours in related electives.

| General Education | Credits |
| :---: | :---: |
| WRIT 101 Writing in the Liberal Arts | 3 |
| BIBL 101 Biblical Literature | 3 |
| THEL 209 Introduction to Christianity | 3 |
| Art/Music electives | 2-4 |
| Humanities electives | 6 |
| Math/Computer Science/Data Science electives | 2-4 |
| Natural Science electives | 2-4 |
| Social Science electives | 3-6 |
| Changing World elective | 3 |
| Total | 32 |
| Criminal Justice | Credits |
| CRJ 201 Introduction to Criminal Justice | 3 |
| CRJ 301 Police Operations and Procedures | 3 |
| CRJ 305 Courts, Judgments, and Alternative Consequences | 3 |
| CRJ 310 Correction, Probation, and Restorative Justice | 3 |
| POLS 270 Introduction to Public Policy | 3-4 |
| PSY 305 Abnormal Psychology | 3 |
| PSY 314 Child Psychopathology | 3 |
| Total | 24 |
| Criminal Justice Electives | Credits |
| CRJ 211, 311, 411 Special Topics in Criminal Justice | 3 |
| COMM 330 Conflict Management | 3 |
| POLS 205 In Search of Justice | 3 |
| POLS 220 The American Political System | 3-4 |


| POLS/PHIL 275 The Philosophy of Law | 2 |
| :--- | :--- |
| POLS 426 Constitutional Law | $3-4$ |
| PSY/SOC 218 Social Psychology | 3 |
| PSY 301 Psychology of Personality | 3 |
| PSY 318 Psychology of Race and Racism | 3 |
| PSY 320 Stereotyping and Prejudice | 3 |
| PSY 335 Drugs and Behavior | 3 |
| PSY 350 Cultural Competencies for Practice | 3 |
| PSY 402 Counseling and Psychotherapy | 4 |
| SOC 327 Governing Urban Communities | 3 |
| THEL 230 Building Shalom: Justice, Love, and the Christian Life | 3 |
| Total electives | 62 |
| Total in degree | 3 |

Associate of Science - Psychology
AS (minimum of 62 hours)
The AS in Psychology curriculum consists of 32 hours in General Education requirements, 2526 hours in psychology, and 4-5 hours in electives.

| General Education | Credits |
| :--- | :--- |
| WRIT 101 Writing in the Liberal Arts | 3 |
| BIBL 101 Biblical Literature | 3 |
| THEL 209 Introduction to Christianity | 3 |
| Art/Music Electives | $2-4$ |
| Humanities Electives | 6 |
| Math/Computer Science/Data Science Electives | $2-4$ |
| Natural Science Electives | $2-4$ |
| Social Science Electives | $3-6$ |
| Changing World Elective | 3 |
| Total | 32 |
| Psychology | Credits |
| PSY 111 Introduction to Psychology | 3 |


| PSY 213 Developmental Psychology | 3 |
| :--- | :--- | :--- |
| PSY 218 Social Psychology | 3 |
| PSY 305 Abnormal Psychology | 3 |
| PSY/BADM 309 Statistics | 4 |
| PSY 310 Experimental Methods | 4 |
| PSY 318 Psychology of Race and Racism | 3 |
| PSY 337 Social Cognition | 3 |
| Total | 26 |
| Psychology Electives | 3 |
| PSY 217 Adolescence and Emerging Adulthood | 3 |
| PSY 230 Lifespan Development of the Family | 3 |
| PSY 301 Psychology of Personality | 3 |
| PSY 306 Psychology of Religion | 3 |
| PSY 314 Child Psychopathology | 3 |
| PSY 318 Psychology of Race and Racism | 3 |
| PSY 320 Stereotyping and Prejudice | 3 |
| PSY 321 Adult Development and Aging | 3 |
| PSY 335 Drugs and Behavior | 3 |
| PSY 354 Brain and Behavior | 3 |
| COMM 330 Conflict Management | 3 |
| Total electives to equal 32 hours | 3 |
| Total in degree | 3 |
|  | 3 |

## Graduate Programs

## Master of Business Administration (MBA)

( 38 credits in the program)
The Houghton MBA engages topics like innovation and design, data analytics, social responsibility, ethics, global engagement, and the economic landscape of today's rapidly changing business markets, all through the lens of Christian character and spiritual growth.

| Core Requirements | Credits |
| :--- | :--- |
| MBA 501 The MBA Connection Workshop (four-day residency) | 1 |


| MBA 509 Data Analysis for Decision Making* | 3 |
| :---: | :---: |
| MBA 511 Political, Regulatory, and Legal Responsibilities* | 3 |
| MBA 518 Accounting Information and Financial Control* | 3 |
| MBA 532 Applied Managerial Finance* | 3 |
| MBA 611 Integrated Marketing Communication | 3 |
| MBA 620 Transformational Leadership | 3 |
| MBA 622 Price, Profit, and Free Enterprise in a Global Economy | 3 |
| MBA 630 Strategic Thinking and Plan Management | 3 |
| MBA 651 Integrated Project (four-day residency) | 1 |
| Total | 26 |
| Elective Courses | Credits |
| Select a minimum of 12 credits ( 4 courses) from electives below. More may be selected if students have met MBA core course substitution requirements. See course descriptions for more detail. |  |
| MBA 514 Leading for Higher Performance | 3 |
| MBA 525 Project Management | 3 |
| MBA 526 Risk Management and Governance | 3 |
| MBA 528 Financial Statement Analysis | 3 |
| MBA 530 Enterprise Process Management | 3 |
| MBA 616 Entrepreneurship and the Lean Startup | 3 |
| MBA 618 Design-Thinking and Innovation | 3 |
| MBA 624 Ethics, Morality, and Social Responsibility | 3 |
| Total | min. 12 |
| *Courses eligible for MBA elective course substitution. See individual course descriptions for detail. |  |
| Total in program | 38 |

## Literacy Education Program

MSEd (30-39*credits in the program)

| Core Requirements | Credits |
| :--- | :--- |
| LEDU 500 Foundations of Language and Literacy for Diverse Learners | 3 |


| LEDU $506^{* *}$ Early Childhood Education (ECE): Language and Literacy Development | 3 |
| :--- | :--- |
| LEDU 507** ECE: Developmentally Responsive Instruction Across the Curriculum | 3 |
| LEDU 510 Multiple Literacies Across the Content Areas | 3 |
| LEDU 512 Culturally Responsive and Dialogic Pedagogy | 3 |
| LEDU 514 Foundations of Learning Theory \& Inquiry | 3 |
| LEDU 516 Collaboration \& Communication Across Diverse Learning Contexts | 3 |
| LEDU 518 Rural Literacies: Empowering Rural Voices | 3 |
| LEDU 520 Educational Research 1: Teachers as Researchers | 3 |
| LEDU 522* Literacy Specialist Internship: Secondary (5-12) | 3 |
| LEDU 524 Ed. Research 2: Cultivating \& Sustaining Professional Communities of Practice | 3 |
| LEDU 526* Literacy Specialist Internship: Elementary (B-6) | 3 |
| LEDU 550 Capstone Seminar: Critical Reflective Literacy Pedagogy | 3 |
| *Birth-12 candidates will choose which internship they want to take in a given semester, and Birth-6 only <br> and 5-12 only candidates will take their internship in their second to last trimester. <br> **This course is restricted to Houghton College Education majors who have completed junior-level <br> coursework in the major and graduates of Houghton's Education program. Any other enrollees must receive <br> permission from the instructor. Required for Birth-6 and Birth-12 certificates. <br> Total in program |  |

Minors

Art Business Minor: 14-17 hours

| Core Required Business Courses | Credits |  |
| :--- | :--- | :--- |
| BADM 203 Survey of Business | 3 |  |
| BADM/COMM 304 Social Media Marketing | 3 |  |
| Total | 6 |  |
| Core Required Art Courses | 3 |  |
| ART/COMM 479 Professional Practices in Photography or ART 378 Photography for Business | $3-4$ |  |
| ART/COMM 283 Introduction to Digital Photography | $6-4$ |  |
| Total | $6-8$ |  |
| Electives (must choose at least one of the following) | 3 |  |
| ART 280 Creative Modern Portraiture | 3 |  |
| BADM 201 Business Communication | 3 |  |
| BADM/COMM 218 Marketing Principles |  |  |


| BADM 303 Entrepreneurship | 3 |
| :---: | :---: |
| COMM 295 ST: Online Portfolio Management | 2 |
| Total | 2-3 |
| Total in minor | 14-17 |
| Criminal Justice Minor: 15 hours |  |
| Required Course | Credits |
| CRJ 201 Introduction to Criminal Justice | 3 |
| At least one course selected from below: |  |
| CRJ 301 Police Operations and Procedures | 3 |
| CRJ 305 Courts, Judgments and Alternative Consequences | 3 |
| CRJ 310 Correction, Probation, and Restorative Justice | 3 |
| CRJ 211, 311, 411 Special Topics in Criminal Justice | 3 |
| POLS 220 The American Political System | 3-4 |
| POLS 270 Introduction to Public Policy | 3-4 |
| POLS/PHIL 275 Philosophy of Law | 3 |
| POLS 426 Constitutional Law | 3-4 |
| Total | 3-4 |
| At least one course selected from below: |  |
| COMM 330 Conflict Management | 3 |
| PSY/SOC 218 Social Psychology | 3 |
| PSY 301 Psychology of Personality | 3 |
| PSY 305 Abnormal Psychology | 3 |
| PSY 314 Child Psychopathology | 3 |
| PSY 320 Stereotyping and Prejudice | 3 |
| PSY 335 Drugs and Behavior | 3 |
| PSY 350 Cultural Competencies for Practice | 3 |
| PSY 402 Counseling and Psychotherapy | 3 |
| Total | 3 |
| Electives (5-6 hours to total 15 hours in the minor) |  |
| Any of the above courses beyond the two selected to meet the requirements |  |
| POLS 205 In Search of Justice | 3-4 |
| SOC 231 Criminology | 3 |
| THEL 230 Building Shalom: Justice, Love, and the Christian Life | 3 |


| WRIT 217 Professional Writing | 3 |
| :--- | :--- |
| Special Topics courses as approved by department chair | $2-3$ |
| Total | $5-6$ |
| Total in minor | 15 |

The Criminal Justice minor is an interdisciplinary minor that involves courses in criminal justice, political science, and psychology. It is designed for students who are pursuing another academic major but who have an academic and/or career interest in the area of criminal justice. Studying criminal justice offers excellent preparation for students anticipating careers in counseling, social work, and other health services; politics and law; ministry; activism and lobbying; law enforcement; or forensic psychology.

## Human Resources Management Minor: 15 credits

| Required courses | Credits |
| :--- | :--- |
| BADM 212 Principles of Management | 3 |
| BADM 314 Human Resources Management (Prerequisite BADM 212) | 3 |
| BADM 345 Employment Law | 3 |
| BADM 450 Managing Total Rewards | 3 |
| Additional 3 credits selected from following: | 3 |

BADM 320 Leadership Development
BADM 336 Staffing and Performance Management
BADM 414 Workplace Excellence
BADM 448 Employee Training \& Development

| Total in minor | 15 |
| :--- | :--- |

Integrated Marketing Communication Minor: 15 credits

| Required courses | Credits |
| :--- | :--- |
| BADM/COMM 218 Marketing Principles | 3 |
| BADM/COMM 312 Advertising Principles | 3 |
| BADM/COMM 315 Public Relations Principles | 3 |
| BADM 319 Marketing Research | 3 |
| Additional 3 credits selected from following: |  |
| COMM 214 Introduction to Mass Media <br> BADM/COMM 304 Social Media Marketing <br> COMM 314 New Media and Society <br> PSY/SOC 218 Social Psychology |  |
| Total in minor | 15 |


| Leadership Development Minor: 15 credits |
| :--- |
| Required courses Credits <br> BADM 212 Principles of Management 3 <br> BADM 320 Leadership Development 3 <br> BADM 341 Work-Team Dynamics 3 <br> COMM 330 Conflict Management 3 <br> Additional 3 credits selected from following: 3 <br> BADM/INCL 343 Multicultural Teams and Leadership  <br> BADM 448 Employee and Training Development  <br> BADM 475 Organizational Development  <br> COMM 215 Interpersonal Communication or PSY/SOC 218 Social Psychology  <br> Total in minor   |

## Organizational Management Minor: 15 credits

| Required Courses | Credits |
| :--- | :--- |
| BADM 202 Accounting and Finance Principles or ACCT 211 Financial Accounting | 3 |
| BADM 212 Principles of Management | 3 |
| BADM 314 Human Resources Management | 3 |
| BADM 325 Project Management | 3 |
| Additional 3 credits selected from following: | 3 |
| BADM 303 Entrepreneurship or BADM 203 Survey of Business <br> BADM 320 Leadership Development <br> BADM 341 Work Team Dynamics <br> BADM 475 Organizational Development or BADM 330 Operations Management |  |
| Total in minor | 15 |

## Political Science: 12 hours

12 hours of POLS coursework (at least 4 discrete courses)
Psychology Minor: 15 hours
15 hours in psychology above PSY 111
Physics, Computer Science, and Engineering
Brandon Hoffman, Chair | http://www.houghton.edu/physics/ | 585.567.9280

The mission of the Department of Physics, Computer Science, and Engineering at Houghton is to offer a curriculum that, in addition to solid coursework, emphasizes practical experience. Our
goal is to provide a rich background for our students by having them spend a significant portion of their time becoming deeply involved in "real-world" team and individual projects that require them to use skills, tools, and knowledge accumulated throughout their educational career. We want to inspire our students to work at their highest level and to accept nothing less than their very best.

In the context of a Christian liberal arts college, students learn to integrate engineering, natural science, humanities, social science, and mathematics within the twin contexts of engineering science and a Christian worldview. Faculty members design engaging learning experiences that move seamlessly among classrooms, laboratories, and projects so students apply what they learn and learn what they apply. At the same time, with the support of Christian faculty members, students mature and develop spiritually and intellectually.

## Majors

Applied Physics Major (BS)
Computer Science (BS)
Data Science (BA)
Data Science (BS)
Electrical Engineering (BS)
Physics (BA)
Physics (BS)
Faculty
Brandon Hoffman Wei Hu Katrina Koehler Carmen McKell Ki Shin

## Minors

Computer Science
Data Science
Physics Jie Zhao

Majors

## Applied Physics Major BS BS (84 hours)

The Applied Physics major is for those students interested in the engineering applications of physics and engineering-related careers or graduate school in engineering or physics. Students begin contributing to engineering design projects in their first year and continue to do so each semester until degree completion. This opportunity gives students a foundation of practical engineering experiences that culminate in the senior capstone. Based on their engineering design work, students write a report that fulfills the writing-intensive requirements for graduation from Houghton. They also present results from their work at a technical conference.
This program does not guarantee enrollment in subsequent graduate engineering programs, nor does this program alone qualify graduates to practice the licensed profession of
engineering. However, in the past 10 years, approximately $44 \%$ of our Applied Physics BS graduates have gone on to engineering graduate programs in a wide variety of engineering subfields. Indeed, during that time, we have never had an Applied Physics BS graduate seeking but unable to enroll in a graduate engineering program. Moreover, the majority of our Applied Physics BS alumni who did not enter graduate engineering programs have gone on to careers as mechanical or electrical engineers or in similar technical engineering-related occupations.

| Core Requirements | Credits |
| :---: | :---: |
| MATH 181 Calculus I | 4 |
| MATH 182 Calculus II | 4 |
| MATH 225 Multivariate Calculus | 4 |
| MATH 241 Differential Equations | 4 |
| ENGR 211 Programming for Engineers | 4 |
| PHYS 151 General Physics I | 4 |
| PHYS 152 General Physics II | 4 |
| ENGR 201 Digital Design | 3 |
| ENGR 202 Circuits \& Analog Electronics I | 3 |
| ENGR 203 Circuits \& Analog Electronics II | 3 |
| ENGR 221 Statics | 3 |
| ENGR 222 Dynamics | 3 |
| PHYS 353 Electricity and Magnetism | 3 |
| PHYS 212 Modern Physics | 2 |
| PHYS 275 Experimental Physics Lab I | 2 |
| PHYS 276 Experimental Physics Lab II | 2 |
| ENGR 321 Optics | 3 |
| ENGR 323 Thermodynamics | 3 |
| ENGR 308 Numerical Analysis for Engineers | 3 |
| ENGR 322 Fluid Mechanics | 3 |
| PHYS 352 Adv. Mechanics or PHYS 354 Adv. Electricity \& Magnetism or PHYS 355 Statistical Mechanics or PHYS 356 Quantum Mechanics | 3 |
| STEM 371 Career Seminar | 1 |
| ENGR 171 Introduction to Engineering Design | 3 |


| ENGR/PHYS 371 Engineering Design or Physics Project Lab | 2 |
| :--- | :--- |
| ENGR/PHYS 372 Engineering Design or Physics Project Lab | 2 |
| ENGR/PHYS 373 Engineering Design or Physics Project Lab | 2 |
| ENGR/PHYS 374 Engineering Design or Physics Project Lab | 2 |
| ENGR/PHYS 375 Engineering Design or Physics Project Lab | 2 |
| ENGR/PHYS 482 Capstone Engineering Design or Physics Research | 3 |
| Total in major | 84 |

## Computer Science Major BS

BS (49 in core; 8-12 in corequisites)
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 technology for tomorrow with a thorough understanding of programming languages and data 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, and information technology specialists and pursue graduate school in a variety of computer-related disciplines.

| Corequisite Courses | Credits |
| :--- | :--- | :--- |
| MATH 181 Calculus I or MATH 170/171 Calculus I with Pre-calculus A and B or MATH 161 <br> Calculus for the Life Sciences | 4 or 4,4 |
| MATH 210 Introduction to Proofs | 2 |
| MATH 214/CSCI 214 Discrete Mathematics | 2 |
| Total | $8-12$ |
| Core Requirements | Credits |
| CSCl 211 Programming I | 4 |
| CSCl 218 Programming II | 4 |
| CSCl 226 Computer Architecture | 4 |
| CSCl 236 Data Structures and Algorithms | 4 |
| CSCl 345 Machine Learning | 4 |
| CSCl 340 Databases | 4 |
| CSCl 380 Collaborative Research in Computer Science | 4 |
| CSCI 420 Networking | 4 |


| CSCl 480 Senior Capstone: Senior Seminar | 4 |
| :--- | :--- |
| Three elective Computer Science courses | 12 |
| STEM 371 Career Seminar | 1 |
| Total | 49 |
| Total in major | $57-61$ |

## Data Science Major BA

BA (29-32 hours)
The Data Science BA major gives a strong foundation on the principles, practices, and cuttingedge tools used in Data Science. Students have the opportunity to couple that foundation with our wide-reaching liberal arts areas of study. Majors are equipped to discover deep insights in data by applying their domain knowledge and computational tools to problems in a wide array of contexts and communicate these findings effectively to varying audiences.

| Core Requirements | Credits |
| :--- | :--- |
| DSCI 151 Data Science for Beginners | 3 |
| DSCI 152 Data Science Fundamentals | 3 |
| DSCI 211 Data Science I | 4 |
| DSCI 212 Data Science II | 4 |
| CSCI 380 Collaborative Research in Data Science or DSCI 289/389/489 Data Science <br> Internship | 4 |
| BADM/PSY 309 Statistics | $3-4$ |
| DSCI 480 Senior Capstone Seminar in Data Science | 4 |
| Choose from the following: | 4 |
| COMM 232 Introduction to Web Communication | 4 |
| COMM/ART 224 Motion Media Design \& Animation | 4 |
| ART 245 Graphic Design I | 4 |
| COMM 314 New Media and Society | 4 |
| COMM 228 Digital Video I | 4 |
| COMM 284 Introduction to Digital Imaging | 4 |
| COMM ST: Data Visualization | 4 |

Total in major ..... 27-

## Data Science Major BS

BS (61-64 hours)
The Data Science BS major gives a strong foundation on the principles, practices, and cuttingedge tools used in Data Science. Students have the opportunity to couple that foundation with our wide-reaching liberal arts areas of study. Majors are equipped to discover deep insights in data by applying their domain knowledge and computational tools to problems in a wide array of contexts and communicate these findings effectively to varying audiences.

| Core Requirements | Credits |
| :---: | :---: |
| DSCI 211 Data Science I | 4 |
| DSCI 212 Data Science II | 4 |
| CSCI 211 Programming I | 4 |
| CSCI 218 Programming II | 4 |
| CSCI 236 Data Structures and Algorithms | 4 |
| CSCI 345 Machine Learning | 4 |
| CSCI 312 Computational Statistics | 4 |
| CSCI 340 Databases | 4 |
| BADM/PSY 309 Statistics | 3-4 |
| PSY 312 Advanced Applied Statistics or CSCI 295 Big Data and Cloud Computing | 4 |
| DSCI 380 Collaborative Research in Data Science | 4 |
| DSCI 480 Senior Capstone Seminar in Data Science | 4 |
| Digital Communication or Development Communication - Choose from the following: |  |
| COMM 232 Introduction to Web Communication | 4 |
| COMM/ART 224 Motion Media Design \& Animation | 4 |
| ART 245 Graphic Design I | 4 |
| COMM 314 New Media and Society | 4 |
| COMM 228 Digital Video I | 4 |
| COMM 284 Introduction to Digital Imaging | 4 |
| COMM ST: Data Visualization | 2-3 |
| Total | 49-52 |


| Cognate | Credits |
| :---: | :---: |
| Chosen from five focus area options (public sector/nonprofit applications, data journalism, natural science, behavioral and social science, business and industry) to reach 12 credits meeting the following guidelines: |  |
| A data analysis course such as POLS 212/SOC 312 Social Science Research Methods |  |
| Disciplinary coursework to support application of data science in areas such as accounting, biochemistry, biology, chemistry, business administration, economics, international development, mathematics, political science, psychology, physics, or sociology. |  |
| At least one course that includes presentation of data. |  |
| DSCI 289/389/489 Data science internship involving workplace experience equivalent to at least 2 credits | 0-6 |
| Total | 12 |
| Total in major | 61-64 |

## Electrical Engineering Major BS

BS (82 hours)

## Program Overview

Electrical engineers specialize in the design and practical application of electrical systems. With rapid advances in technology, electrical engineering (EE) has come to influence nearly every aspect of our lives, including cell phones, tablets, computers, appliances, and cars. The EE program at Houghton College prepares students for careers as well as advanced study at leading graduate institutions. Graduates interested in engineering employment immediately after college can consider opportunities with medical device, electric utility, telecommunications, automotive, and electronics companies, just to name a few. With their analytical, quantitative, creative, and critical thinking skills, Houghton EE alumni are also well prepared to pursue a breadth of other career options in fields such as business, teaching, medicine, law, and finance.

Students at Houghton begin contributing to engineering design projects in their first year and continue to do so each semester until degree completion. This opportunity gives students a foundation of practical engineering experiences that culminate in the senior capstone. Based on their engineering design work, students write a report that fulfills the writing-intensive requirements for graduation from Houghton. They also present results from their work at a technical conference.

This program does not guarantee enrollment in subsequent graduate engineering programs, nor does this program alone qualify graduates to practice the licensed profession of engineering. However, we have a strong history of producing successful engineers even before the creation of the EE degree. In the past 10 years, approximately $44 \%$ of our Applied Physics

BS graduates have gone on to engineering graduate programs in a wide variety of engineering subfields. Indeed, during that time, we have never had an Applied Physics BS graduate seeking but unable to enroll in a graduate engineering program. Moreover, the majority of our Applied Physics BS alumni who did not enter graduate engineering programs have gone on to careers as mechanical or electrical engineers or in similar technical engineering-related occupations.

## Program Distinctives

Some aspects of the Houghton College EE program are unique when compared to programs at other institutions:

- Intense development of practical engineering design knowledge and skills throughout all four years, not just in a one-semester capstone design course. This is accomplished through involvement in academic and industry-driven projects in digital design, digital signal processing, electronics, and other areas.
- Students learn through problem- and project-based instructional experiences in nearly all engineering courses.
- Because it is a small program, students cultivate close and lasting relationships with faculty members who they have for multiple courses and work closely with during projects.
- Our Christian faith is woven into all aspects of our program, providing a solid foundation for spiritual development and maturation in addition to strong educational outcomes.


## Curriculum

As indicated in the table below, students must take three 3-credit engineering electives with the ENGR prefix. Students can combine these courses to tailor their education to their individual interests and goals. Available engineering electives are listed below.

In addition to completing the EE program requirements listed below, students must meet the Houghton College General Education requirements.

## Program Educational Outcomes

(1) Graduates will be productive and valuable professionals, utilizing their engineering and computer science expertise to conceive, develop, implement, and integrate systems, components, and processes for the wellbeing of the communities they serve.
(2) Graduates will be lifelong learners, adapting to new technologies, tools, and methodologies to respond to a changing world.
(3) Graduates will be scholar-servants who work ethically, collaboratively, and professionally, serving humanity in a manner that is consistent with a Christian worldview.

## Student Learning Outcomes

Through completion of the Houghton EE program and other curricular or co-curricular opportunities, the following student learning outcomes are met:
(1) An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
(2) An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare as well as global, cultural, social, environmental, and economic factors
(3) An ability to communicate effectively with a range of audiences
(4) An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
(5) An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
(6) An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
(7) An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

## Careers

This program prepares students for careers in a broad array of fields including but not limited to

- Circuit design
- Computers
- Controls
- Defense
- Electrical systems
- Instrumentation
- Manufacturing
- Medical electronics
- Microelectronics
- Nanotechnology
- Power engineering
- Product design
- Research and development
- Signal processing
- Telecommunications
- Video technology
- Wireless networking

| Core Requirements | Credits |
| :--- | :--- |
| MATH 181 Calculus I | 4 |
| MATH 182 Calculus II | 4 |
| MATH 241 Differential Equations | 4 |
| MATH 225 Multivariate Calculus | 4 |
| MATH 333 Probability \& Statistics | 4 |
| ENGR 211 Programming for Engineers | 4 |
| PHYS 151 General Physics I | 4 |
| PHYS 152 General Physics II | 4 |
| ENGR 201 Digital Design | 3 |


| ENGR 202 Circuits \& Analog Electronics I | 3 |
| :--- | :--- |
| ENGR 203 Circuits \& Analog Electronics II | 3 |
| ENGR 204 Digital Signal Processing I | 3 |
| ENGR 303 Digital Signal Processing II | 3 |
| PHYS 353 Electricity \& Magnetism | 3 |
| ENGR 301 Electromagnetic Design | 3 |
| ENGR 302 Engineering System Modeling | 9 |
| Three ENGR courses numbered 200 or above | 1 |
| STEM 371 Career Seminar | 3 |
| ENGR 171 Introduction to Engineering Design | 2 |
| ENGR 371 Engineering Design | 2 |
| ENGR 372 Engineering Design | 2 |
| ENGR 373 Engineering Design | 2 |
| ENGR 374 Engineering Design | 82 |
| ENGR 375 Engineering Design | 3 |
| ENGR 482 Capstone Engineering Design | 2 |
| Total in major | 2 |

## Physics Major BA

BA (45 hours)
The BA Physics major is particularly appropriate for students interested in a double major with another field or those completing a major in Inclusive Childhood or Adolescence 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. Please see the Education Department section of this catalog for details.

| Core Requirements | Credits |
| :--- | :--- |
| MATH 181 Calculus I | 4 |
| MATH 182 Calculus II | 4 |
| MATH 241 Differential Equations | 4 |


| MATH 225 Multivariate Calculus | 4 |
| :--- | :--- |
| PHYS 151 General Physics I | 4 |
| PHYS 152 General Physics II | 4 |
| ENGR 222 Dynamics | 3 |
| PHYS 353 Electricity \& Magnetism | 3 |
| PHYS 212 Modern Physics | 2 |
| PHYS 275 Experimental Lab I | 2 |
| PHYS 276 Experimental Lab II | 2 |
| ENGR 323 Thermodynamics | 3 |
| PHYS or ENGR course numbered 200 or above | 3 |
| PHYS 482 Capstone Physics Research | 3 |
| Total in major | 45 |
| Additional Recommended Supporting Courses | Credits |
| CHEM 151, 152 General Chemistry I, II | 4,4 |
| CSCI 211 Programming I | 4 |
| PHIL 360 History and Philosophy of Science | 3 |
| STEM 371 Career Seminar | 1 |

## Physics Major BS

BS (79 hours)
The BS Physics major provides a broad variety of experiences with the theoretical basis of physics, its applications through experimental and mathematical techniques, and its study using computer programming and simulations. Students at Houghton begin contributing to individual research projects in their first year and continue to do so each semester until degree completion. This opportunity gives students a foundation of practical physics experiences that culminate in the senior capstone. Based on their research, students write a report that fulfills the writing-intensive requirements for graduation from Houghton. They also present results from their work at a technical conference.

This major 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.

## Core Requirements

MATH 181 Calculus I

| MATH 182 Calculus II | 4 |
| :---: | :---: |
| MATH 241 Differential Equations | 4 |
| MATH 225 Multivariate Calculus | 4 |
| CHEM 151 General Chemistry I | 4 |
| ENGR 211 Programming for Engineers | 4 |
| PHYS 151 General Physics I | 4 |
| PHYS 152 General Physics II | 4 |
| ENGR 222 Dynamics | 3 |
| PHYS 352 Advanced Mechanics | 3 |
| PHYS 353 Electricity and Magnetism | 3 |
| PHYS 354 Advanced Electricity and Magnetism | 3 |
| PHYS 212 Modern Physics | 2 |
| PHYS 275 Experimental Lab I | 2 |
| PHYS 276 Experimental Lab II | 2 |
| ENGR 323 Thermodynamics | 3 |
| PHYS 355 Statistical Mechanics | 3 |
| PHYS 356 Quantum Mechanics | 3 |
| PHYS or ENGR course numbered 200 or above | 3 |
| STEM 371 Career Seminar | 1 |
| ENGR 171 Intro to Engineering Design | 3 |
| PHYS 371 Physics Project Lab | 2 |
| PHYS 372 Physics Project Lab | 2 |
| PHYS 373 Physics Project Lab | 2 |
| PHYS 374 Physics Project Lab | 2 |
| PHYS 375 Physics Project Lab | 2 |
| PHYS 482 Capstone Physics Research | 3 |
| Total in major | 79 |

Minors

## Computer Science Minor: 16 hours

| Required Courses | Credits |
| :--- | :--- |
| CSCI 211 Programming I | 4 |
| CSCI 218 Programming II | 4 |
| CSCI 226 Computer Architecture | 4 |
| CSCI 236 Data Structures and Algorithms | 4 |
| Total in minor | 16 |

## Data Science Minor: 16-18 hours

| Required Courses | Credits |
| :--- | :--- |
| DSCl 151 Data Science for Beginners | 3 |
| DSCI 152 Data Science Fundamentals | 3 |
| DSCI 211 Data Science I | 4 |
| DSCI 212 Data Science II | 4 |
| Choose one of the following. | 4 |
| ART/COMM 224 Time, Motion and Communication | 4 |
| ART 245 Graphic Design I | 4 |
| ART/COMM 284 Introduction to Digital Imaging | 4 |
| CSCI 211 Programming I | $3-4$ |
| CSCI 218 Programming II | 4 |
| BADM/PSY 309 Statistics | 4 |
| COMM 232 Introduction to Web Communication | 2 |
| COMM 314 New Media and Society | 4 |
| COMM XXX ST: Data Visualization | 4 |
| DSCI 289/389/489 Data Science Internship | $13-16$ |
| DSCI 380 Collaborative Research in Data Science |  |
| Total in minor |  |

## Physics Minor: 12 hours

12 hours of PHYS courses numbered 200 or above.

## Psychology and Criminal Justice

Änna Pettway, Chair | https://www.houghton.edu/academics/majors-programs/psychology-sociology/ | 585.567.9440

Psychologists study normal and abnormal behavior, structured and erratic thinking, and 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 in which the Christian faith frames and informs our studies and our understanding.

Since Psychology students typically have broad interests and varied 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, and marriage and family therapy or in related fields such as social work and human resource management.

Even without graduate training, 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 is required for the Medical College Admission Test.

The major consists of Introduction to Psychology, a 15 -credit core common to all tracks, and 21 credits of track-specific courses and electives. The Psychology coursework totals 39 hours, including Introduction to Psychology, which meets half of the General Education Social Sciences requirement.

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.
A major in Criminal Justice seeks to build broad understanding of factors contributing to criminal behavior and efforts at control made by individuals, groups, and societal institutions. Analysis using social science methods is combined with ethical and moral reasoning to develop critical, creative, and evaluative responses to the range of social issues connected with criminal justice systems. Our program prepares students for careers like law enforcement and law.

Students who successfully complete the program will develop the ability to use the quantitative and qualitative tools of the social and behavioral arts and sciences to assess the effectiveness of efforts at prevention, correction, and restorative justice. They will be able to apply ethical and moral reasoning to evaluate the influence of social and economic variables on the ways that societies understand and respond to criminal activity. They will engage in knowledgeable and respectful discussion of policies and procedures, including the particular challenges and opportunities of rural and cross-cultural approaches to criminal justice.

Sociology provides an understanding of the social and cultural influences on human action. The minor in Sociology includes coursework in anthropology, marriage and family studies, 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. 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 is required for the Medical College Admission Test.

The minor in Child and Family Studies combines family-focused courses in psychology, sociology, education, and theology.

The minor in Criminal Justice combines applicable courses in criminal justice, political science, and psychology.
The minor in Diversity Studies combines relevant courses in psychology, sociology, anthropology, theology, communication, and intercultural studies.

Students wanting to prepare for graduate study in art therapy should major in either Psychology or Art and take recommended courses in the other discipline, including at least 12 hours in psychology and 18 hours in studio art.
Majors
Criminal Justice
Psychology - General Track
Psychology - Clinical/Counseling Track
Psychology - Developmental Track
Psychology - Diversity Science Track
Psychology - Neuroscience Track
Psychology - Restorative Justice Track
Psychology - Social Track
Associate of Science - Criminal Justice
Associate of Science - Psychology

An honors research emphasis may be taken with any track in the Psychology major.

## Faculty

William R. Burrichter
Hannah Kim
Paul D. Young

## Minors

Child and Family Studies
Criminal Justice
Diversity Studies
Psychology
Sociology
Pre-Professional
Pre-Art Therapy

## General Information

Statistics (BADM/PSY 309) and Experimental Methods (PSY 310) should be taken in fairly close sequence during the sophomore and junior years.

## Majors

## Criminal Justice

BA (36-38 hours in major)

## Core Requirements

| CRJ 201 Introduction to Criminal Justice | 3 |
| :---: | :---: |
| PHIL 303 Organizational Ethics | 3 |
| PSY/BADM 309 Statistics | 4 |
| PSY 310 Experimental Methods or POLS 212/SOC 312 Social Science Research Methods | 3-4 |
| CRJ 480 Senior Capstone Seminar | 3 |
| Total | 19-20 |
| Electives | Credits |
| Criminal Justice Majors must choose elective courses from the following list to total 17-18 credits: |  |
| COMM 330 Conflict Management | 3 |
| CRJ 301 Police Operations and Procedures | 3 |
| CRJ 305 Courts, Judgements, and Alternative Consequences | 3 |
| CRJ 310 Correction, Probation and Restorative Justice | 3 |
| CRJ 211, 311, 411 Special Topics in Criminal Justice | 3 |
| CRJ 410 Internship in Criminal Justice | 0-6 |
| POLS 220 The American Political System | 3-4 |
| POLS 270 Introduction to Public Policy | 3-4 |
| POLS/PHIL 275 Philosophy of Law | 3 |
| POLS 426 Constitutional Law | 3-4 |
| PSY 301 Psychology of Personality | 3 |
| PSY 305 Abnormal Psychology | 3 |
| PSY 314 Child Psychopathology | 3 |
| PSY 318 Psychology of Race \& Racism | 3 |
| PSY 335 Drugs \& Behavior | 3 |
| PSY 402 Counseling \& Psychotherapy | 3 |
| PSY/SOC 218 Social Psychology | 3 |
| SOC 231 Criminology | 3 |
| WRIT 217 Professional Writing | 2-3 |
| Total | 17-18 |
| Total in major | 36-38 |

Recommended minors include Communication, Health Promotion \& Fitness, Intercultural Studies, Sociology, and Writing.

## Psychology Major

BA/BS (15 hours in core; 21 in track; 3 corequisite hours)

| Corequisite | Credits |
| :---: | :---: |
| PSY 111 Introduction to Psychology | 3 |
| Core Requirements |  |
| BADM/PSY 309 Statistics | 4 |
| PSY 310 Experimental Methods | 4 |
| PSY 354 Brain and Behavior | 4 |
| PSY 480 Senior Capstone Seminar | 3 |
| Total | 15 |
| General Track | Credits |
| One developmental course from the following: |  |
| PSY 213 Developmental Psychology | 3 |
| PSY 217 Adolescence and Emerging Adulthood | 3 |
| PSY 220 Culture and Human Development | 3 |
| PSY 230 Lifespan Development of the Family | 3 |
| PSY 321 Adult Development and Aging | 3 |
| PSY 340 Cognitive Development | 3 |
| One social course from the following: |  |
| PSY 218 Social Psychology | 3 |
| PSY 320 Stereotyping and Prejudice | 3 |
| PSY 337 Social Cognition | 3 |
| PSY 342 Social Neuroscience | 3 |
| One clinical course from the following: |  |
| PSY 301 Psychology of Personality | 3 |
| PSY 305 Abnormal Psychology | 3 |
| PSY 314 Child Psychopathology | 3 |
| One integrative issues course from the following: |  |


| PSY 301 Psychology of Personality | 3 |
| :---: | :---: |
| PSY 306 Psychology of Religion | 3 |
| PSY 318 Psychology of Race and Racism | 3 |
| PSY 401 History and Systems of Psychology | 3 |
| One neuroscience course from the following: |  |
| PSY 335 Drugs and Behavior | 3 |
| PSY 342 Social Neuroscience | 3 |
| Psychology electives to total 36 credits (beyond PSY 111) | 6 |
| Total | 21 |
| Note: The same course may not count towards two sections (i.e., PSY 301 may count for either a clinical or integrative course but not both; PSY 342 may count for either a social or neuroscience course but not both). |  |
| Total in major | 39 |
| Psychology Major - Clinical/Counseling Track BA/BS (15 hours in core; 20-24 in track; 3 corequisite hours) |  |
| Corequisite | Credits |
| PSY 111 Introduction to Psychology | 3 |
| Core Requirements |  |
| BADM/PSY 309 Statistics | 4 |
| PSY 310 Experimental Methods | 4 |
| PSY 354 Brain and Behavior | 4 |
| PSY 480 Senior Capstone Seminar | 3 |
| Total | 15 |
| Clinical/Counseling Track | Credits |
| Developmental Psychology (PSY 213, 217, 220, 230, 321, or 340) | 3 |
| PSY 301 Psychology of Personality or PSY 306 Psychology of Religion or PSY 318 Psychology of Race and Racism or PSY 401 History and Systems of Psychology | 3 |
| PSY 305 Abnormal Psychology or PSY 314 Child Psychopathology | 3 |
| PSY 325 Human Sexuality or PSY 335 Drugs and Behavior | 3 |
| PSY 350 Cultural Competencies for Practice | 3 |


| PSY 402 Counseling and Psychotherapy | 3 |
| :---: | :---: |
| PSY 415 Internship | 2-6 |
| Total | 20-24 |
| Psychology electives to total 36 credits (beyond PSY 111) | 0-1 |
| Total in major | 39 |
| Psychology Major - Developmental Psychology Track BA (15 hours in core; 21 in track; 3 corequisite hours) |  |
| Corequisite | Credits |
| PSY 111 Introduction to Psychology | 3 |
| Core Requirements |  |
| BADM/PSY 309 Statistics | 4 |
| PSY 310 Experimental Methods | 4 |
| PSY 354 Brain and Behavior | 4 |
| PSY 480 Senior Capstone Seminar | 3 |
| Total | 15 |
| Developmental Psychology Track | Credits |
| PSY 213 Developmental Psychology | 3 |
| PSY 217 Adolescence and Emerging Adulthood or PSY 321 Adult Development \& Aging | 3 |
| PSY 220 Culture and Human Development | 3 |
| PSY 230 Lifespan Development of the Family or SOC 237 Introduction to Marriage and Family Studies | 3 |
| PSY 301 Psychology of Personality or PSY 306 Psychology of Religion or PSY 318 Psychology of Race and Racism or PSY 401 History and Systems of Psychology | 3 |
| PSY 314 Child Psychopathology or PSY 325 Human Sexuality | 3 |
| PSY 340 Cognitive Development | 3 |
| Total | 21 |
| Psychology electives (optional) |  |
| Total in major | 39 |

## Psychology Major - Diversity Science Track

BA (15 hours in core; 21 in track; 3 corequisite hours)

| Corequisite | Credits |
| :---: | :---: |
| PSY 111 Introduction to Psychology | 3 |
| Core Requirements |  |
| BADM/PSY 309 Statistics | 4 |
| PSY 310 Experimental Methods | 4 |
| PSY 354 Brain and Behavior | 4 |
| PSY 480 Senior Capstone Seminar | 3 |
| Total | 15 |
| Diversity Science Track | Credits |
| PSY 218 Social Psychology or PSY 342 Social Neuroscience | 3 |
| PSY 220 Culture and Human Development | 3 |
| PSY 318 Psychology of Race and Racism | 3 |
| PSY 320 Stereotyping and Prejudice | 3 |
| PSY 350 Cultural Competencies for Practice | 3 |
| PSY 325 Human Sexuality or PSY 335 Drugs and Behavior | 3 |
| SOC/ANTH/INCL 243 Cultural Anthropology or SOC 335 Diversity in the Workplace or SOC 362 Gender Relations or THEL 295 Race and American Christianity | 3 |
| Psychology electives to total 36 credits (beyond PSY 111) | 0-1 |
| Total | 21 |
| Total in major | 39 |

Psychology Major - Neuroscience Track
BA (15 hours in core; 21 in track; 3 corequisite hours)

| Corequisite | Credits |
| :--- | :--- |
| PSY 111 Introduction to Psychology | 3 |
| Core Requirements | 4 |
| BADM/PSY 309 Statistics | 4 |


| PSY 310 Experimental Methods | 4 |
| :--- | :--- |
| PSY 354 Brain and Behavior | 4 |
| PSY 480 Senior Capstone Seminar | 3 |
| Total | 15 |
| Neuroscience Track | Credits |
| PSY 325 Human Sexuality | 3 |
| PSY 335 Drugs and Behavior | 3 |
| PSY 342 Social Neuroscience | 3 |
| Collaborative research project | 3 |
| PSY 301 Psychology of Personality or PSY 306 Psychology of Religion or PSY 318 Psychology of | 3 |
| Race and Racism or PSY 401 History and Systems of Psychology | 6 |
| Psychology electives to total 36 credits (beyond PSY 111) | 21 |
| Total | 39 |
| Total in major |  |

Psychology Major - Restorative Justice Track
BA (15 hours in core; 21 in track; 3 corequisite hours)

| Corequisite | Credits |
| :--- | :--- |
| PSY 111 Introduction to Psychology | 3 |
| Core Requirements | 4 |
| BADM/PSY 309 Statistics | 4 |
| PSY 310 Experimental Methods | 4 |
| PSY 354 Brain and Behavior | 3 |
| PSY 480 Senior Capstone Seminar | 15 |
| Total | Credits |
| Restorative Justice Track | 3 |
| COMM 330 Conflict Management or PSY 402 Counseling \& Psychotherapy or PSY 350 Cultural <br> Competencies for Practice | 3 |
| CRJ 201 Introduction to Criminal Justice | 3 |
| CRJ 310 Correction, Probation, and Restorative Justice | 3 |
| PSY 218 Social Psychology or PSY 342 Social Neuroscience or PSY 337 Social Cognition |  |


| PSY 301 Psych of Personality or PSY 305 Abnormal Psych or PSY 314 Child Psychopathology 3 | 3 |
| :---: | :---: |
|  | 3 |
|  | 3 |
| Total 21 | 21 |
| Psychology and/or Criminal Justice Electives (optional) |  |
| Total in major 39 | 39 |
| Psychology Major - Social Psychology Track <br> BA (15 hours in core; 21 in track; 3 corequisite hours) |  |
| Corequisite | Credits |
| PSY 111 Introduction to Psychology | 3 |
| Core Requirements |  |
| BADM/PSY 309 Statistics | 4 |
| PSY 310 Experimental Methods | 4 |
| PSY 354 Brain and Behavior | 4 |
| PSY 480 Senior Capstone Seminar | 3 |
| Total | 15 |
| Social Psychology Track | Credits |
| PSY 218 Social Psychology | 3 |
| PSY 301 Psychology of Personality or PSY 306 Psychology of Religion or PSY 401 History \& Systems of Psychology | 3 |
| PSY 318 Psychology of Race and Racism | 3 |
| PSY 320 Stereotyping \& Prejudice | 3 |
| PSY 325 Human Sexuality or PSY 335 Drugs and Behavior | 3 |
| PSY 342 Social Neuroscience or PSY 337 Social Cognition | 3 |
| Psychology elective to total 36 credits (beyond PSY 111) | 3 |
| Total | 21 |
| Total in major | 39 |

Associate of Science - Criminal Justice
AS (minimum of 62 hours)

The AS in Criminal Justice curriculum consists of 32 hours in General Education requirements, $24-25$ hours in criminal justice, and 5-6 hours in related electives. Program requirements may be viewed in the Department of Online Programs section.

## Associate of Science - Psychology

AS (minimum of 62 hours)
The AS in Psychology curriculum consists of 32 hours in General Education requirements, 2526 hours in psychology, and 5-6 hours in related electives. Program requirements may be viewed in the Department of Online Programs section.

## Minors

## Child and Family Studies Minor: 15-18 hours

| At least one course selected from below: | Credits |
| :---: | :---: |
| PSY 230 Lifespan Development of the Family | 3 |
| SOC 237 Introduction to Marriage and Family Studies | 3 |
| At least two courses selected from below: |  |
| PSY 213 Developmental Psychology | 3 |
| PSY 217 Adolescence and Emerging Adulthood | 3 |
| PSY 314 Child Psychopathology | 3 |
| At least one course selected from below: |  |
| PSY 220 Culture and Human Development | 3 |
| PSY 325 Human Sexuality | 3 |
| Electives to reach 15 credit minimum: |  |
| Any of the above courses not used for previous categories or |  |
| EDUC 219 Educational Psychology | 3 |
| SOC 330 Culture and Family | 2 |
| SOC 362 Gender Relations | 3 |
| SOC 394 Internship in Family Studies | 1-6 |
| THEL 310 Women, Men, and the Image of God | 3 |
| THEL 337 Theological Foundations of the Family | 3 |
| Special Topics courses as approved by department chair | 3 |
| Total in minor | 15 |

The Child and Family Studies minor is interdisciplinary, combining the fields of psychology, sociology, education, and theology to provide an integrative field of study that examines child development; the social, cultural, and theological functions of the family; and the dynamics of family systems. The minor is designed to provide students with exp5osure to knowledge and skills necessary 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 (e.g., marriage and family studies, early childhood education, pastoral care).

## Criminal Justice Minor: 15 hours

| Required Course: | Credits |  |
| :--- | :--- | :--- |
| CRJ 201 Introduction to Criminal Justice | 3 |  |
| At least one course selected from below: |  |  |
| CRJ 301 Police Operations and Procedures | 3 |  |
| CRJ 305 Courts, Judgments, and Alternative Consequences | 3 |  |
| CRJ 310 Correction, Probation, and Restorative Justice | 3 |  |
| CRJ 211, 311, 411 Special Topics in Criminal Justice | 3 |  |
| POLS 220 The American Political System | $3-4$ |  |
| POLS 270 Introduction to Public Policy | $3-4$ |  |
| POLS/PHIL 275 Philosophy of Law | 3 |  |
| POLS 426 Constitutional Law | $3-4$ |  |
| At least one course selected from below: |  |  |
| COMM 330 Conflict Management | 3 |  |
| PSY/SOC 218 Social Psychology | 3 |  |
| PSY 301 Psychology of Personality | 3 |  |
| PSY 305 Abnormal Psychology | 3 |  |
| PSY 314 Child Psychopathology | 3 |  |
| PSY 320 Stereotyping and Prejudice | 3 |  |
| PSY 335 Drugs and Behavior | 3 |  |
| PSY 350 Cultural Competencies for Practice | 3 |  |
| PSY 402 Counseling and Psychotherapy | 3 |  |
| Electives (5-6 hours to total 15 hours in the minor) | 3 |  |
| Any of the above courses not used for previous categories or | 3 |  |
| POLS 205 In Search of Justice | 3 |  |
| SOC 231 Criminology | 3 |  |
| THEL 230 Building Shalom: Justice, Love, and the Christian Life | 3 |  |
| 217 Professional Writing | 3 |  |

The Criminal Justice minor is an interdisciplinary minor that involves courses in criminal justice, political science, and psychology. It is designed for students who are pursuing another academic major but who have an academic and/or career interest in the area of criminal justice. Studying criminal justice offers excellent preparation for students anticipating careers in counseling, social work, and other health services; politics and law; ministry; activism and lobbying; law enforcement; or forensic psychology.

Diversity Studies Minor: 15 hours

| At least two courses selected from below: | Credits |
| :---: | :---: |
| PSY 220 Culture and Human Development | 3 |
| PSY 318 Psychology of Race and Racism | 3 |
| PSY 320 Stereotyping and Prejudice | 3 |
| PSY 350 Cultural Competencies for Practice | 3 |
| At least one course selected from below: |  |
| INCL/ANTH/SOC 243 Cultural Anthropology | 3 |
| SOC/PSY 218 Social Psychology | 3 |
| SOC 335 Diversity in the Workplace | 3 |
| SOC 362 Gender Relations | 3 |
| Electives (6-7 hours to total 15 hours in the minor) |  |
| Any of the above courses not used for previous categories or |  |
| COMM/INCL 225 Intercultural Communication | 3 |
| ENGL 361 Contemporary World Literature | 3 |
| INCL 201 Introduction to Global Issues | 3 |
| INCL/ANTH 310 Intercultural Competencies | 3 |
| POLS 205 In Search of Justice | 3-4 |
| PSY 325 Human Sexuality | 3 |
| THEL 230 Building Shalom: Justice, Love, and the Christian Life | 3 |
| THEL 232 Poverty, Wealth, and the Christian Gospel | 3 |
| THEL 240 Ethnicity, Race, and the Church | 3 |
| THEL 295 Race and American Christianity | 3 |
| WRIT 312 Writing for Social Change | 3 |
| Special Topics courses as approved by department chair |  |
| Total in minor | 15 |

The interdisciplinary Diversity Studies minor combines the fields of psychology, sociology, anthropology, theology, communication, and intercultural studies to provide an integrative field of study that examines human relations by looking at human differences and inequities (in gender, age, race, religion, nationality, ethnicity, sexuality, and socioeconomic status) to develop critical thinking, cultivate knowledge, and promote intercultural communication. The minor is designed to equip students to work, live, and worship in an increasingly diverse society and to understand diversity at interpersonal, systemic, and structural levels.

## Psychology Minor: 15 hours

15 hours in psychology above PSY 111

## Sociology Minor: 12 hours

12 hours above SOC 101
Pre-Professional Preparation

## Pre-Art Therapy

Combined art and psychology offering
Faculty Advisor: Änna Pettway
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 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.

| Psychology courses to be taken with Art major | Credits |
| :--- | :--- |
| PSY 213 Developmental Psychology | 3 |
| PSY 305 Abnormal Psychology | 3 |
| At least two more courses selected from the following in consultation with Dr. Pettway |  |
| PSY 217 Adolescence and Emerging Adulthood | 3 |
| PSY 310 Experimental Methods (with a prerequisite of BADM/PSY 309 Statistics) | 4 |
| PSY 314 Child Psychopathology | 3 |
| PSY 402 Counseling and Psychotherapy | 3 |
| Total | min. 12 |

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 Clinical/Counseling 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 those listed below, selected in consultation with their advisor.

| Art courses to be taken with Psychology major | Credits |
| :--- | :--- |
| ART 271 Ceramics I | 4 |
| ART 241 Two-Dimensional Design | 2 |


| ART 242 Three-Dimensional Design | 2 |
| :--- | :--- |
| ART 211 Drawing I | 2 |
| ART 245 Graphic Design I | 4 |
| ART 221 Painting I | 4 |
| Total | min. 18 |

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 Dr. Pettway about appropriate selection of courses.

## Religion and Global Service

Sarah B. C. Derck, Chair | https://www.houghton.edu/biblical-studies-theology-and-philosophy/ | 585.567.9634

The mission of the Department of Religion and Global Service is to prepare Christians to serve in the global community, responding to key problems of global concern in culturally relevant ways that follow Kingdom principles through the study and practice of the following disciplines: Biblical studies, environmental studies, intercultural studies, international development, missions, theology, and foreign world languages. The department offers five majors (Bible, Environmental Studies, Intercultural Studies, International Development, and Theology) with an array of concentrations and minors. Most require a practical field experience. Career options for majors in these fields vary widely; the department also prepares students for graduate study in these and cognate fields.

With a solid foundation in Scripture and Christian history and belief, our Bible and Theology graduates go into every kind of Christian ministry (Bible translation, chaplaincy, children's ministry, discipleship, evangelism, missions, parachurch ministry, pastoring, sports ministry, theological education, worship ministry, and youth ministry) as well as business and nonprofit work, counseling, and education. Both the A.A.S. in Christian Ministries and the B.A. Theology major with Pastoral Ministries concentration fulfill all educational requirements for ordination in The Wesleyan Church; the other Theology majors fulfill them partially. Our Second Major options are chosen by students across the College to add further preparation in Bible or Theology to majors in Art, Biology, Business, Communication, Education, English, History, Music, Political Science, Philosophy, Psychology, and Writing.

Environmental Studies is an interdisciplinary major combining biology, sociology, and intercultural studies to prepare student for environmentally related vocational fields.

The Intercultural Studies and International Development majors draw heavily on the methodologies and perspectives of anthropology and related social sciences, integrating the theory of cross-cultural development work with experiential learning in cross-cultural settings. These majors will provide competence for students seeking to serve in such fields as community development, relief and refugee work, health services, education, missions, and Bible
translation whether in developing countries, multicultural or inner-city contexts in the U.S., or international settings.

Finally, linguistic isolation has serious consequences in global society and impedes Christian service. We therefore seek to provide an intellectual environment that facilitates exploring languages and linguistics. We offer minors in French, German, and Spanish (plus a Spanish concentration); an introductory course in linguistics; and introductory study in Biblical Hebrew and Greek.

| Majors | Minors |
| :--- | :--- |
| Bible | Bible |
| Bible as a Second Major | Environmental Studies |
| Bible Major with Missions Concentration | French |
| AAS in Christian Ministries | German |
| Environmental Studies | German Studies |
| Intercultural Studies | Intercultural Studies |
| Intercultural Studies with International Development | International Development |
| Concentration | Missions |
| Intercultural Studies with Missions Concentration | Public Health |
| Intercultural Studies with Spanish Concentration | Religion |
| International Development | Spanish |
| Theology | Sports Ministry |
| Theology as Second Major | Theology |
| Theology Major with Missions \& Intercultural Studies | World Religions |
| Conc. |  |
| Theology Major with Pastoral Ministries | Pre-Seminary Interest |
| Concentration |  |
| Theology Major with Sports Ministry Concentration |  |
| Theology Major with Youth Ministries Concentration |  |

Emmanuel Scholars Program: The Emmanuel Scholars program is group spiritual formation oriented toward vocation. Group members participate in weekly readings and discussions around vocation and other topics and have weekly one-on-one meetings for mentoring and spiritual direction. The group begins and ends each year with a retreat. Students can take the course for credit or no credit (THEL 251/252). The program is by application, and preference is given to rising sophomores.

## Faculty

| Jonathan P. Case | Sarah B. C. Derck | Marcus Dean | Walter Hopkins |
| :--- | :--- | :--- | :--- | :--- |
|  | Kristina | LaCelle- |  |

Michael Ritter Brian Webb

Majors

## Bible Major

BA/BS (33 hours in core; 6 corequisite hours)
A major in Bible is recommended for those expecting to become ministers, missionaries, teachers or leaders in parachurch ministries, and Bible translators. It is also an excellent base for seminary or graduate work in biblical studies, theology, and related disciplines.

| Corequisites | Credits |
| :--- | :--- |
| GREK 101, 102 Beginning Greek 1 \& 2 or HEBR 101, 102 Beginning Hebrew 1 \& 2 | 3,3 |
| Total | 6 |
| Required Courses | Credits |
| BIBL 221 Biblical Interpretation | 3 |
| BIBL 231 Pentateuch | 3 |
| BIBL 233 Jesus and the Gospels | 3 |
| BIBL 355 Old Testament Theology | 3 |
| BIBL 356 New Testament Theology | 3 |
| GREK 201 Greek Readings or HEBR 201 Hebrew Readings or CRFM 325 Bible Study and <br> Teaching Methods | 3 |
| Bible electives: any BIBL courses above 101 (may include up to 3 hours of any THEL <br> course) | 32 |
| BIBL 482 Senior Capstone: Senior Seminar | 39 |
| Total in major | 3 |

## Bible as a Second Major

BA/BS (24 hours)
For students who want to double-major, this major provides focused study of the Bible and its interpretation. While particularly appropriate with cognate disciplines such as Theology and Intercultural Studies, it also allows for creative combinations across the college curriculum for students who want a thorough understanding of Christian Scripture to undergird their work in any other setting.

| Core Requirements | Credits |
| :--- | :--- |
| BIBL 221 Biblical Interpretation | 3 |


| BIBL 231 Pentateuch | 3 |
| :--- | :--- |
| BIBL 233 Jesus and the Gospels | 3 |
| BIBL 355 Old Testament Theology | 3 |
| BIBL 356 New Testament Theology | 3 |
| BIBL 482 Senior Capstone: Senior Seminar | 3 |
| Bible electives: any BIBL courses above 101; CRFM 325 Bible Study \& Teaching Methods | 6 |
| Total in major | 24 |

## Bible Major with Missions Concentration

BA/BS (29 major hours; 19-20 concentration hours)
This major pairs focused study of the Bible and its interpretation with foundational work in the mission of God in the world and intercultural studies. Especially designed for students wanting to work in intercultural settings as ministers, missionaries, teachers, or Bible translators, it is also an excellent base for seminary or graduate work in Biblical studies, theology, and related disciplines.

| Core Requirements | Credits |
| :--- | :--- |
| BIBL 221 Biblical Interpretation | 3 |
| BIBL 231 Pentateuch | 3 |
| BIBL 233 Jesus and the Gospels | 3 |
| BIBL 355 Old Testament Theology | 3 |
| BIBL 356 New Testament Theology | 3 |
| GREK 101, 102 Beginning Greek 1 \& 2 or HEBR 101, 102 Beginning Hebrew 1 \& 2 | 3,3 |
| Bible electives: any BIBL courses above 101 | 6 |
| BIBL 482 Senior Capstone: Senior Seminar | 3 |
| Total | 30 |
| Missions Concentration | Credits |
| INCL 243 Cultural Anthropology or INCL 310 Intercultural Competencies or INCL 350 Culture | $3-4$ |
| Change and Globalization | 4 |
| MISS 241 History of the Global Christian Movement | 4 |
| MISS 242 Missions and the Global Church | 4 |
| MISS 243 Missiological Foundations | 3 |


| Choose one elective in INCL, MISS, or THEL | $3-4$ |
| :--- | :--- |
| Total | $17-19$ |
| Total in major and concentration | $47-49$ |

## Christian Ministries Major

AAS (minimum of 60 hours)
The Christian Ministries curriculum is a two-year program leading to an AAS degree. The course of study requires a minimum of 60 hours and provides a strong Bible-centered preparation for Christian service in the church or mission field.

The curriculum consists of 24 hours in General Education requirements and 36 hours in required Bible, theology, and ministry courses.

| General Education Requirements | Credits |
| :---: | :---: |
| BIBL 101 Biblical Literature* | 3 |
| THEL 209 Introduction to Christianity* | 3 |
| WRIT 101 Writing in the Liberal Arts | 3 |
| Philosophy | 3 |
| Math/Science | 3 |
| Social Science (recommended courses for ordination in The Wesleyan Church below) | 3 |
| PSY 111 Introduction to Psychology |  |
| SOC 101 Introduction to Sociology |  |
| COMM 215 Interpersonal Communication |  |
| Liberal Arts Electives | 6 |
| Total | 24 |
| Major Requirements | Credits |
| MIN 210 Introduction to Christian Ministry | 3 |
| Ministry Electives (courses with a MIN prefix - recommended courses for ordination in The Wesleyan Church below) | 12 |
| MIN 316 Worship in the Church |  |
| MIN 317 Leadership in the Church |  |
| MIN 324 Preaching in the Church |  |


| In addition to MIN electives, electives with prefixes of BIBL (numbered above 101), THEL (numbered above 209), and CRFM (recommended courses for ordination in The Wesleyan Church below) | 21 |
| :---: | :---: |
| BIBL 221 Biblical Interpretation |  |
| MIN 220 Pastoral Care and Counseling |  |
| CRFM 231 Foundations of Educational Ministry |  |
| THEL 211 Introduction to Theology |  |
| THEL 221 \& 222 History of Christianity 1 \& 2 |  |
| THEL 315 Wesleyan Tradition |  |
| THEL 320 Spiritual Formation |  |
| THEL 327 Church, Mission, and Culture |  |
| Total in degree | 60 |
| *Does not meet major requirements. |  |
| Environmental Studies Major BA (36 hours) |  |
| Core Requirements | Credits |
| ENST 201 Environment and Society | 3 |
| INCL 201 Introduction to Global Issues | 3 |
| BIOL 250 Environmental Science | 4 |
| BIOL 255 Conservation Biology | 4 |
| PHIL/ENST 311 Environmental Ethics | 3 |
| SOC 312 Social Science Research Methods | 3-4 |
| IDEV 482 Senior Capstone: International Development Seminar | 3 |
| Total | 23-24 |
| Electives | Credits |
| Four additional courses chosen with advisor from options below; at least one must have an ENST prefix. |  |
| BIOL 205 New Zealand Ecosystems (non-Houghton off-campus program) | 4 |
| BIOL 207 Wildlife Behavior in East Africa (Houghton off-campus program) | 4 |
| BIOL 322 General Ecology | 4 |


| BIOL course at AuSable Institute (max 8 credits; non-Houghton off-campus program) | max. 8 |
| :--- | :--- |
| ENGL 306 Environmental Literature | 3 |
| ENST 310 Environmental Public Policy | 3 |
| ENST 320 Environmental Communication | 3 |
| ENST 300- or 400-level courses | min. 3 |
| IDEV 338 Issues in Development | 3 |
| IDEV/POLS 343 Communities, Governance, and Development | 4 |
| INCL 305 Introduction to Sustainable Community Development | 4 |
| POLS 205 In Search of Justice | 3 |
| SOC 315 Human Ecology (Houghton off-campus program) | 4 |
| SRWM 401 Natural Resources Management | 3 |
| Total electives | $36-13$ |
| Total in major | 36 |

Recommended Minors: Biology, International Development, Intercultural Studies, Political Science, Sociology, Communication

## Intercultural Studies Major

BA (24-35 hours: 18-27 in core; either 6-8 hours of electives or one 15-20-hour concentration)
The concentration options include International Development, Missions, and Spanish.

| Core Requirements | Credits |
| :--- | :--- |
| INCL 201 Introduction to Global Issues | 3 |
| INCL 243 Cultural Anthropology | 3 |
| INCL 310 Intercultural Competencies | 3 |
| INCL 311 Intercultural Experience | $0-4$ |
| Conversation-level language (see advisor) | $0-4$ |
| INCL 225 Intercultural Communication or INCL/BADM 343 Multicultural Teams and <br> Leadership or LING 220 Introduction to Linguistics | 3 |
| INCL 350 Culture Change \& Globalization or IDEV 338 Issues in Development or ANTH 315 <br> Human Ecology | $3-4$ |
| INCL 482 Senior Capstone: Intercultural Seminar | 3 |
| Total | $18-27$ |


| Electives | Credits |
| :--- | :--- |
| Students not taking a concentration will take electives selected through advising from <br> other courses within the department or from other approved areas. | $6-8$ |

Intercultural Studies Major with International Development Concentration BA (18-27 hours in major; 17-18 hours in concentration)
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 while seeking to correct the injustices associated with poverty, oppression, and inequality.
See the Intercultural Studies Major for the major requirements.

| International Development Concentration | Credits |
| :--- | :--- |
| IDEV 338 Issues in Development | 3 |
| IDEV 335 NGO Management | 3 |
| POLS 212/SOC 312 Social Science Research Methods | 4 |
| IDEV/POLS 343 Communities, Governance, and Development | 4 |
| Elective chosen with advisement | $3-4$ |
| Total | $17-18$ |
| Total in major and concentration | $35-45$ |

Intercultural Studies Major with Missions Concentration
BA (18-27 hours in major; 17-18 hours in concentration)
See the Intercultural Studies Major for the major requirements.

| Missions Concentration Requirements | Credits |
| :--- | :--- |
| MISS 241 History of the Global Christian Movement or THEL 221 History of Christianity I | 3 |
| MISS 242 Missions and the Global Church | 4 |
| MISS 243 Introduction to Missiological Foundations | 4 |
| Religion course focusing on major non-Christian religion | 3 |
| Elective from any of the following course prefixes as advised by Intercultural advisor from <br> the following prefixes: MISS, REL, LING, INCL, BIBL, and THEL. | $3-4$ |
| Total | $17-18$ |

Intercultural Studies Major with Spanish Concentration BA (18-27 hours in major; 15-19 hours in concentration)
This concentration encourages students to progress in their fluency in Spanish. The Intercultural Studies department recognizes that the work for which we prepare students must be done in the language of the people we serve. Spanish is vital for service within all the Americas. Students start at a level beyond Introductory Spanish (currently SPAN 102), as determined by college credit or placement exam. Students are required to take Spanish courses focusing on communication skills as part of the concentration. Additional courses should focus on culture and history.
See the Intercultural Studies Major for the major requirements.

| Spanish Concentration |  |
| :--- | :--- |
| Conversation-level language (Students may start with Spanish 205. If placed higher, then <br> Spanish 301 is the starting point for the concentration.) | $0-4$ |
| 15 credit hours above the course taken to meet the Conversation Requirement of the <br> core; courses selected through advising | 15 |
| Total in major and concentration | $33-46$ |

## International Development Major

BA (31-35 hours)
Students majoring in International Development must complete one of the following as a companion major: Art, Biology, Business, Communication, Political Science, Sociology, or Theology. Two minors may be substituted for the second major including minors in the approved major areas as well as Economics, Education, Organizational Management, and Missions.

| Core Requirements | Credits |
| :--- | :--- |
| INCL 201 Introduction to Global Issues | 3 |
| INCL/ANTH/SOC 243 Cultural Anthropology | 3 |
| INCL 310 Intercultural Competencies | 3 |
| IDEV 335 NGO Management | 3 |
| IDEV 338 Issues in Development | 3 |
| IDEV/POLS 343 Communities, Governance, and Development | 4 |
| SOC 312/POLS 212 Social Science Research Methods | $2-4$ |
| INCL 312 Field Experience in Development | 3 or 4 |
| IDEV 482 Senior Seminar or IDEV 484 Integrative Senior Seminar |  |


| One course from the following, chosen in consultation with advisor: |  |
| :--- | :--- |
| ANTH/SOC 315 Human Ecology | 4 |
| IDEV 220 Introduction to Public Health | 3 |
| INCL 225 Intercultural Communication | 3 |
| INCL 350 Culture Change and Globalization | 4 |
| PSY/BADM 309 Statistics | $3-4$ |
| THEL 232 Poverty, Wealth, and the Christian Gospel | 3 |
| Course on Islam | $3-4$ |
| Study abroad course, by advisor approval | $3-4$ |
| Total in major | $31-35$ |

## Theology Major

BA/BS (36 hours)
The comprehensive major in Theology 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 requiring a liberal arts degree. Courses marked with an asterisk below help a student fulfill educational requirements for ordination in The Wesleyan Church and are accepted by many other denominations for the same. Students choosing any major in Theology are strongly encouraged to satisfy the General Education Changing World requirement by taking one of the Biblical languages (Greek or Hebrew). A curriculum plan for this major is available through the Religion and Global Services Department.

| Theology Requirements | Credits |
| :--- | :--- |
| THEL 211 Introduction to Theology* | 3 |
| THEL 221 History of Christianity I* | 3 |
| THEL 222 History of Christianity II* | 3 |
| THEL 313 Systematic Theology* | 3 |
| THEL 320 Spiritual Formation* | 3 |
| THEL 327 Church, Mission, and Culture* | 3 |
| THEL 482 Senior Capstone: Seminar in Theology | 3 |
| Total | 21 |
| Bible Requirements | Credits |
| BIBL 221 Biblical Interpretation* | 3 |


| BIBL 355 Old Testament Theology* | 3 |
| :--- | :--- |
| BIBL 356 New Testament Theology* | 3 |
| Total | 9 |
| Electives - Choose one REL course and one THEL course from the following: | Credits |
| World Religions*: REL 215 Islam: An Introduction or REL 221 Eastern Religions or <br> REL 222 New Religious Movements or REL 231 Judaism | 3 |
| Faith and Justice*: THEL 230 Building Shalom: Justice, Love, and the Christian Life or <br> THEL 232 Poverty, Wealth, and the Christian Gospel or THEL 240 Ethnicity, Race, and the <br> Church or THEL 310 Women, Men, and the Image of God | 3 |
| Total in major | 36 |

*Required for ordination in The Wesleyan Church

## Theology as Second Major

BA/BS (27 hours)
For students who want to double-major, this major provides deep grounding in the study of theology, particularly appropriate with cognate disciplines such as Bible, philosophy, and history. It also allows for creative combinations across the college curriculum for students who want a thorough understanding of Christian thought and history to undergird their work in secular or intercultural settings. Courses marked with an asterisk below help a student fulfill educational requirements for ordination in The Wesleyan Church and are accepted by many other denominations for the same.

| Theology Requirements | Credits |
| :--- | :--- |
| THEL 211 Introduction to Theology* | 3 |
| THEL 221 History of Christianity I* | 3 |
| THEL 222 History of Christianity II* | 3 |
| THEL 313 Systematic Theology* | 3 |
| THEL 320 Spiritual Formation* | 3 |
| THEL 327 Church, Mission and Culture* | 3 |
| THEL 482 Senior Capstone: Seminar in Theology | 3 |
| Total | 21 |
| Electives - Choose one REL course and one THEL course from the following: | Credits |
| World Religions*: REL 215 Islam: An Introduction or REL 221 Eastern Religions or | 3 |
| REL 222 New Religious Movements or REL 231 Judaism |  |


| Faith and Justice*: THEL 230 Building Shalom: Justice, Love, and the Christian Life or THEL 232 Poverty, Wealth, and the Christian Gospel or THEL 240 Ethnicity, Race, and the Church or THEL 310 Women, Men, and the Image of God | 3 |
| :---: | :---: |
| Total in major | 27 |

## Theology Major with Missions and Intercultural Studies Concentration BA/BS (36 hours in core; 14-18 hours in concentration)

This major prepares students for work in the global church, combining study in the history and doctrines of Christianity with foundational work in the mission of God in the world and intercultural studies. Students choosing this major are strongly encouraged to satisfy the General Education Changing World requirement by taking one of the Biblical languages (Greek or Hebrew). Courses marked with an asterisk below help a student fulfill educational requirements for ordination in The Wesleyan Church and are accepted by many other denominations for the same. A curriculum plan for this major is available through the Department of Religion and Global Service.

| Theology Requirements | Credits |
| :--- | :--- |
| THEL 211 Introduction to Theology* | 3 |
| THEL 221 History of Christianity I* | 3 |
| THEL 222 History of Christianity II* | 3 |
| THEL 313 Systematic Theology* | 3 |
| THEL 320 Spiritual Formation* | 3 |
| THEL 327 Church, Mission, and Culture* | 3 |
| THEL 482 Senior Capstone: Seminar in Theology | 3 |
| Total | 21 |
| Bible Requirements | Credits |
| BIBL 221 Biblical Interpretation* | 3 |
| BIBL 355 Old Testament Theology* | 3 |
| BIBL 356 New Testament Theology* | 3 |
| Total | 9 |
| Electives - Choose one REL course and one THEL course from the following: | 2 |
| World Religions*: REL 215 Islam: An Introduction or REL 221 Eastern Religions or |  |
| REL 222 New Religious Movements or REL 231 Judaism | 3 |


| Faith and Justice*: THEL 230 Building Shalom: Justice, Love, and the Christian Life or <br> THEL 232 Poverty, Wealth, and the Christian Gospel or THEL 240 Ethnicity, Race, and the <br> Church or THEL 310 Women, Men, and the Image of God | 3 |
| :--- | :--- |
| Total | 6 |
| Missions and Intercultural Studies Concentration | Credits |
| INCL/ANTH/SOC 243 Cultural Anthropology | 3 |
| INCL/ANTH 310 Intercultural Competencies | 3 |
| MISS 242 Missions and the Global Church | 4 |
| MISS 243 Missiological Foundations | 4 |
| Cross-cultural experience | $0-4$ |
| Total | $14-18$ |
| Total in major and concentration | $50-54$ |
| *Required for ordination in The Wesleyan Church |  |
| Theology Major with Pastoral Ministries Concentration <br> BA/BS (6 hours in corequisites; 36 hours in core; 21-24 hours in concentration) <br> This major combines the major in Theology (36 hours) with a 21-24-hour pastoral ministries <br> concentration. This curriculum is a four-year terminal program designed to prepare students <br> for pastoral ministry. It fulfills all academic requirements for ministerial ordination in The <br> Wesleyan Church (courses marked with an asterisk below), and most courses are accepted by <br> many other denominations for the same. Students choosing this major are strongly <br> encouraged to satisfy the General Education Changing World requirement by taking one of <br> the Biblical languages (Greek or Hebrew). A curriculum plan for this major is available through <br> the Department of Religion and Global Service. |  |


| Corequisites | Credits |
| :--- | :--- |
| PSY 111 Introduction to Psychology* | 3 |
| COMM 205 Introduction to Communication Theory* | 3 |
| Total | 6 |
| Theology Requirements | Credits |
| THEL 211 Introduction to Theology* | 3 |
| THEL 221 History of Christianity I* | 3 |
| THEL 222 History of Christianity II* | 3 |
| THEL 313 Systematic Theology* | 3 |
| THEL 327 Church, Mission, and Culture* | 3 |


| THEL 320 Spiritual Formation* | 3 |
| :---: | :---: |
| THEL 482 Senior Capstone: Seminar in Theology | 3 |
| Total | 21 |
| Bible Core Requirements | Credits |
| BIBL 221 Biblical Interpretation* | 3 |
| BIBL 355 Old Testament Theology* | 3 |
| BIBL 356 New Testament Theology* | 3 |
| Total | 9 |
| Electives - Choose one REL course and one THEL course from the following: | Credits |
| World Religions*: REL 215 Islam: An Introduction or REL 221 Eastern Religions or REL 222 New Religious Movements or REL 231 Judaism | 3 |
| Faith and Justice*: THEL 230 Building Shalom: Justice, Love, and the Christian Life or THEL 232 Poverty, Wealth, and the Christian Gospel or THEL 240 Ethnicity, Race, and the Church or THEL 310 Women, Men, and the Image of God | 3 |
| Total | 6 |
| Pastoral Ministries Concentration | Credits |
| CRFM 231 Foundations of Educational Ministry* | 3 |
| MIN 210 Introduction to Christian Ministries* | 3 |
| MIN/THEL 316 Worship in the Church* | 3 |
| MIN 317 Leadership in the Church* | 3 |
| MIN 324 Preaching and the Church* | 3 |
| MIN 410 Ministerial Field Education* | 3-6 |
| THEL 315 Wesleyan Tradition* | 3 |
| Total | 21-24 |
| Total in major and concentration | 57-60 |
| *Required for ordination in The Wesleyan Church |  |
| Theology Major with Sports Ministry Concentration BA/BS (36 hours in core; 18-21 hours in concentration) |  |
| This major and concentration are 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. Students choosin this major are strongly encouraged to satisfy the General Education Changing World |  |

requirement by taking one of the Biblical languages (Greek or Hebrew). Courses marked with an asterisk below help a student fulfill academic requirements for ordination in The Wesleyan Church and are accepted by many other denominations for the same. A curriculum plan for this major is available through the Department of Religion and Global Service.

| Theology Requirements | Credits |
| :---: | :---: |
| THEL 211 Introduction to Theology* | 3 |
| THEL 221 History of Christianity I* | 3 |
| THEL 222 History of Christianity II* | 3 |
| THEL 313 Systematic Theology* | 3 |
| THEL 327 Church, Mission, and Culture* | 3 |
| THEL 320 Spiritual Formation* | 3 |
| THEL 482 Senior Capstone: Seminar in Theology | 3 |
| Total | 21 |
| Bible Requirements | Credits |
| BIBL 221 Biblical Interpretation* | 3 |
| BIBL 355 Old Testament Theology* | 3 |
| BIBL 356 New Testament Theology* | 3 |
| Total | 9 |
| Electives - Choose one REL course and one THEL course from the following: | Credits |
| World Religions*: REL 215 Islam: An Introduction or REL 221 Eastern Religions or REL 222 New Religious Movements or REL 231 Judaism | 3 |
| Faith and Justice*: THEL 230 Building Shalom: Justice, Love, and the Christian Life or THEL 232 Poverty, Wealth, and the Christian Gospel or THEL 240 Ethnicity, Race, and the Church or THEL 310 Women, Men, and the Image of God | 3 |
| Total | 6 |
| Sports Ministry Concentration | Credits |
| CRFM 325 Bible Study and Teaching Methods | 3 |
| CRFM 340 Theological Explorations in Youth Cultures and Ministry | 3 |
| MIN 210 Introduction to Christian Ministries* | 3 |
| MIN 410 Ministerial Field Education* | 3-6 |
| SRWM/CRFM 227 Sports Ministry: The Integration of Faith and Sport | 3 |


| SRWM/CRFM 275 Methods of Administration of Sports Ministry | 3 |
| :--- | :--- |
| Total | $18-21$ |
| Total in major and concentration | $54-57$ |

*Required for ordination in the Wesleyan Church

## Theology Major with Youth Ministries Concentration

BA/BS (36 hours in core; 21-24 hours in concentration)
This major prepares students to work with young people in church and parachurch settings. Courses marked with an asterisk below help a student fulfill education requirements for ordination in The Wesleyan Church and are accepted by many other denominations for the same. Students choosing this major are strongly encouraged to satisfy the General Education Changing World requirement by taking one of the Biblical languages (Greek or Hebrew). A curriculum plan for this major is available through the Department of Religion and Global Service.

| Theology Requirements | Credits |
| :--- | :--- |
| THEL 211 Introduction to Theology* | 3 |
| THEL 221 History of Christianity I* | 3 |
| THEL 222 History of Christianity II* | 3 |
| THEL 313 Systematic Theology* | 3 |
| THEL 327 Church, Mission, and Culture* | 3 |
| THEL 320 Spiritual Formation* | 3 |
| THEL 482 Senior Capstone: Seminar in Theology | 3 |
| Total | 21 |
| Bible Requirements | Credits |
| BIBL 221 Biblical Interpretation* | 3 |
| BIBL 355 Old Testament Theology* | 3 |
| BIBL 356 New Testament Theology* | 3 |
| Total | 9 |
| Electives - Choose one REL course and one THEL course from the following: | Credits |
| World Religions*: REL 215 Islam: An Introduction or REL 221 Eastern Religions or | 3 |
| REL 222 New Religious Movements or REL 231 Judaism | 3 |


| Faith and Justice*: THEL 230 Building Shalom: Justice, Love, and the Christian Life or <br> THEL 232 Poverty, Wealth, and the Christian Gospel or THEL 240 Ethnicity, Race, and the <br> Church or THEL 310 Women, Men, and the Image of God | 3 |
| :--- | :--- |
| Total | 6 |
| Youth Ministries Concentration | Credits |
| CRFM 332 Christian Formation of Youth | 3 |
| CRFM 340 Theological Explorations in Youth Cultures and Ministry | 3 |
| CRFM 350 Foundations of Youth Ministry | 3 |
| MIN 210 Introduction to Christian Ministries* | 3 |
| MIN 410 Ministerial Field Education* | $3-6$ |
| PSY 217 Adolescence and Emerging Adulthood | 3 |
| THEL 265 Christianity, Postmodernism, and Beyond | 3 |
| Total | $21-24$ |
| Total in major and concentration | $57-60$ |
| Required for ordination in The Wesleyan Church |  |
| Minors |  |
| Bible Minor: 12 hours <br> 12 hours in BIBL, numbered 200 or above |  |

## Environmental Studies Minor: 15-18 credits

| Required Courses | Credits |
| :--- | :--- |
| ENST 201 Environment and Society | 3 |
| ENST/PHIL 311 Environmental Ethics | 3 |
| Additional Courses |  |
| Additional courses selected from those in the Environmental Studies major core or |  |
| electives list (must have at least two courses with different, non-ENTS prefixes to |  |
| maintain the interdisciplinary nature of the program) |  |
| Total in minor | $15-18$ |

## French Minor, Self-Designed: 12-14 hours

A 12-14-hour self-designed minor with courses beyond the 102 level as determined by arrangement with the chair of the Department of Religion and Global Service. A special course of study is developed to meet the student's specific goals and is signed prior to taking the courses. The signed course of study is placed on file in the Registrar's Office.

## German Minor, Self-Designed: 12-14 hours

A 12-14-hour self-designed minor with courses beyond the 102 level as determined by arrangement with the chair of the Department of Religion and Global Service. A special course of study is developed to meet the student's specific goals and is signed prior to taking the courses. The signed course of study is placed on file in the Registrar's Office.

## German Studies Minor

Twelve hours of coursework, at least 6 hours of which are in German language study at any level and at least 3 of which are in the study of German, Austrian, or Swiss history, politics, or culture, broadly understood. Students may take additional or higher-level German courses in tutorial form (via approvals) or through study abroad.

| Language Courses (Choose at least 6 hours) | Credits |
| :--- | :--- |
| GERM 101 German Level 1 | 3 |
| GERM 102 German Level 2 | 3 |
| Higher-level German course as tutorial (with approval) | 3 |
| Culture Courses (Choose at least 3 hours) | 4 |
| ART 234 Art and Architecture in Europe: Germany | 4 |
| HIST/POLS 369 Luther and the German Reformation | $3-4$ |
| POLS/HIST/HUM 247: Switzerland: A Case Study in European History, Politics, and |  |
| Culture | $3-4$ |
| POLS/HIST/HUM 348 ST: Vienna 1900: Politico-Cultural Crisis and Creativity | 3 |
| THEL 333 Major Figures in Theology: Bonhoeffer | $1-4$ |
| Other Approved Study-Abroad Courses | 12 |
| Total in minor | \begin{tabular}{l\|l|}
\hline
\end{tabular} |

Intercultural Studies Minor: 12-16 hours

| Required Courses | Credits |
| :--- | :--- |
| INCL 201 Introduction to Global Issues | 3 |
| INCL 243 Cultural Anthropology | 3 |
| INCL 310 Intercultural Competencies | 3 |
| Option A | $0-4$ |
| INCL 311 Intercultural Experience | $1-2$ |
| Elective to total 12 credits (if INCL 310 is done for less than 3; any INCL/IDEV/ANTH <br> course) | min. 12 |
| Total in minor (Option A) |  |
| Option B | 3 |
| Corequisite: at least 3 credit hours of any modern world language |  |


| INCL 350 Culture Change and Globalization | 4 |
| :--- | :--- |
| Total in minor (Option B) | 16 |

## International Development Minor: 12-14 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.

| Required Courses | Credits |
| :--- | :--- |
| INCL 201 Introduction to Global Issues | 3 |
| IDEV 338 Issues in Development | 3 |
| IDEV/POLS 343 Communities, Governance, \& Dev. or IDEV 335 NGO Management | $3-4$ |
| Optional Courses (Choose one of the following courses) |  |
| IDEV 220 Introduction to Public Health | 3 |
| IDEV 335 NGO Management (if not taken above) | 3 |
| INCL 350 Culture Change and Globalization | 4 |
| SOC 312/POLS 212 Social Science Research Methods | 4 |
| Total in minor | $12-14$ |

## Missions Minor: 14-15 hours

Missions preparation takes multiple paths at Houghton because $21^{\text {st }}$-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. Students taking the Missions minor have majored (or double-majored) in everything from Bible, Music, and Psychology to Education and more. Other minor options for missions careers include International Development and Islamic Studies. Everything about Houghton-the faculty, the missions representatives, the students, and the general campus and community ethos-points to excellent preparation for missions.

Most students who minor in Missions will include the highly recommended Cross-Cultural Field Experience in addition to the regular coursework.

| Required Courses | Credits |
| :--- | :--- |
| MISS 241 History of the Global Christian Movement or THEL 221 History of | 3 |
| Christianity I | 4 |
| MISS 242 Mission and the Global Church | 4 |
| MISS 243 Introduction to Missiological Foundations |  |
| Elective | $3-4$ |
| As advised by the chair of the Department of Religion and Global Service (MISS, REL, |  |
|  |  |

## Public Health Minor: 14-17 hours

The minor in Public Health is an introduction to the field of global public health, which entails programs and policies within domestic and international contexts. It aims to provide a Christian liberal arts perspective for understanding the domains of public health that facilitate the wellbeing 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.

| Required Courses | Credits |
| :---: | :---: |
| BIOL 232 Epidemiology | 2 |
| IDEV 220 Introduction to Public Health | 3 |
| PSY/BADM 309 Statistics or SOC 312/POLS 212 Social Science Research Methods | 3-4 |
| Elective Courses (Choose two of the following courses) |  |
| ANTH/SOC 315 Human Ecology (East Africa) | 4 |
| BIOL 209 Introduction to Nutrition** | 3 |
| BIOL 2XX or higher (with advisement - BIOL 380 Pathogenic Microbes or BIOL 250 Environmental Science recommended) | 4 |
| IDEV 335 NGO Management | 3 |
| IDEV/POLS 343 Communities, Governance, and Development | 4 |
| INCL 310 Intercultural Competencies* | 3 |
| PHIL 240 Medical Ethics | 3 |
| Total in minor | 14-17 |
| *Recommended for Biology majors and other non-INCL majors <br> **Recommended for INCL majors and other non-Biology majors |  |
| Religion Minor: 12-15 hours |  |
| Required Course | Credits |
| THEL/PHIL 255 Reason and Religious Belief | 3 |
| Electives |  |
| Select two courses from the following: |  |
| REL 215 Islam: An Introduction | 3 |
| REL 221 Eastern Religions | 3 |
| REL 222 New Religious Movements | 3 |
| REL 231 Judaism | 3 |
| Select additional courses from the following: |  |
| THEL 215 Christian Apologetics | 3 |
| THEL 313 Systematic Theology | 3 |


| BIBL 355 Old Testament Theology | 3 |
| :--- | :--- |
| BIBL 356 New Testament Theology | 3 |
| THEL 221 or 222 History of Christianity I or II | 3,3 |
| Total in minor | $12-15$ |

## Spanish Minor: 12-14 hours

12-14 hours of SPAN courses beyond SPAN 102. The minor may also include SPAN 205 Intermediate Spanish. No more than 4 hours of Intermediate Spanish may be applied.

## Sports Ministry Minor: 15-16 hours

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.

| Required Courses | Credits |
| :--- | :--- |
| CRFM 325 Bible Study and Teaching Methods | 3 |
| SRWM/CRFM 227 Sports Ministry: The Integration of Faith and Sport | 3 |
| SRWM/CRFM 275 Methods of Administration of Sports Ministry | 3 |
| Electives | 3 |
| Select one course from the following: | 3 |
| CRFM 340 Theological Explorations in Youth Cultures and Ministry | 3 |
| THEL 313 Systematic Theology | $3-4$ |
| Choose remaining electives to total at least 15 credits in minor, as approved by |  |
| advisor*: | $3-4$ |
| INCL XXX Intercultural course recommended by department | 4 |
| MISS 242 Missions and the Global Church | 3 |
| SRWM 270 Global Sports Culture | 3 |
| SRWM 305 Sports Ministry Field Practicum** | 3 |
| SRWM 306 Principles of Coaching and Sport Management | 3 |
| SRWM 229 Outdoor Leadership Training | 2 |
| SRWM 240 Camps and Summer Programs | 3 |
| SRWM 241 Recreation and Tourism |  |
| CRFM 340 or THEL 313 (whichever was not used in previous category) |  |
| *For other options, see the director of this 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 | $0-4$ |
| Total in minor | $15-16$ |

Theology Minor: 12 hours
The Theology minor provides concentrated study in Christian doctrine, apologetics, and church history.

| Required Courses | Credits |
| :--- | :--- |
| THEL 211 Introduction to Theology | 3 |
| THEL 313 Systematic Theology | 3 |
| Theology electives above THEL 209 | 6 |
| Total in minor | 12 |

World Religions Minor: 12 hours

| Required Courses | Credits |
| :--- | :--- |
| REL 215 Islam: An Introduction | 3 |
| REL 221 Eastern Religions | 3 |
| REL 222 New Religious Movements | 3 |
| REL 231 Judaism | 3 |
| Total in minor | 12 |

## Pre-Professional Preparation

## Pre-Seminary Interest

Consult the chair of the Department of Religion and Global Service.
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, communicate effectively, and 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.


## Sport, Recreation, and Wellness

Laura D. Thayer, Chair | http://www.houghton.edu/sport-recreation-andwellness/ | 585.567.9440 | Equestrian Center: 585.567.8142

Majors<br>Sport, Recreation, and Wellness Management<br>SRWM: Equestrian Concentration - Management<br>Emphasis<br>SRWM: Equestrian Concentration - Performance Emphasis

## Minor

Athletic Administration and Sport
Management
Equestrian Studies
Equine-Assisted Therapy
Health Promotion and Fitness
Recreation
Sports Ministry

## Faculty

Andrea N. Boon Larissa Ries Laura D. Thayer Jo-Anne O. Young

## General Information

The Sport, Recreation, and Wellness Management (SRWM) program prepares professionals for managerial positions in the sport, recreation, and wellness industry. Its mission is to develop a community of learners whose engagement in the integration of theory, practice, and personal growth is central to their training for service as professionals in administrative roles related to intercollegiate and interscholastic sports; sport/fitness clubs; sports/athletics equipment merchandising; public, private, and commercial recreation programs; and intramural and recreational sports. The SRWM major requires students to choose a minor in one of the following areas: athletic administration and sports management, health promotion and fitness, pre-athletic training, recreation, sports ministry, equestrian studies, and/or equine-assisted therapies.
The SRWM major with an Equestrian Concentration offers two options: Equine Performance or Equine Management. These majors give 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, 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.
Those wishing to participate in our equestrian program must realize the program is ridingintensive. It requires an ongoing commitment to learning and physical fitness. All Equestrian students are expected to maintain a professional demeanor at the barn. Horses can be unpredictable in their behavior; therefore, a degree of risk is inherent in working with these animals.

- The program observes a strict weight policy: Students should not weigh more than $20 \%$ of the horse's weight. Student weight includes all riding apparel and horse tack. This percentage is in line with industry standards and is upheld by the Certified Horsemanship Association.
- Any student participating in equestrian classes who requires a certain type or size of horse will be accommodated as much as possible. However, if Houghton College does
not have an appropriate horse in the College lesson herd to meet a student's physical needs, the student may not be able to participate in equestrian riding classes.
- Students who have severe allergies to hay, straw, shavings, and/or others are advised to discuss their plans for entrance into this program with their family physician.
*Please note, students are required to sign a waiver of liability at the time of entrance into the program.
*See Program Guidelines and Requirements.
Majors

SRWM Major: Equestrian Studies - Management Emphasis
BS (54-59 hours in major; 1-2 prerequisite hours)

| Prerequisite Courses | Credits |
| :---: | :---: |
| EQST 101 Introduction to Equestrian Studies | 1 |
| EQST 113 Horsemanship 1 (option to test out) | 1 |
| Total | 1-2 |
| Core Requirements | Credits |
| BADM 201 Business Communication | 3 |
| BADM 202 Accounting \& Finance Principles | 3 |
| BADM 212 Principles of Management | 3 |
| BADM 303 Entrepreneurship | 3 |
| BADM 320 Leadership Development or SRWM 229 Outdoor Leadership Training | 3 |
| Choose one course from: PSY 213 or PSY 217 or PSY 230 or PSY 301 | 3 |
| Choose one course from: COMM 115 or COMM 205 or COMM 215 or COMM 216 | 2-3 |
| SRWM 221 Principles of Sport, Recreation, and Wellness Management | 3 |
| SRWM 300 Program Planning and Evaluation | 3 |
| SRWM 475 Professional Development | 1 |
| SRWM 481 Senior Capstone | 2 |
| Must choose either an internship or 3 semesters of practicum: <br> SRWM 489 Internship or SRWM 486/487/488 Practicum I/II/III | 3-5 |
| SRWM 308 First Aid \& Safety or CPR/AED for the Prof. Res. \& First Aid or WFA or Lifeguarding - Current Certification upon graduation | 0-2 |
| Total | 32-37 |


| Equestrian Studies Concentration Requirements | Credits |
| :---: | :---: |
| EQST 231 Equine Facility Management I | 2 |
| EQST 238 Equine Science I | 2 |
| Total | 4 |
| Management Emphasis Requirements | Credits |
| BADM/COMM 218 Marketing Principles | 3 |
| BADM 314 Human Resource Management | 3 |
| EQST 214 Horsemanship 2 | 2 |
| EQST 331 Equine Facility Management 2 | 2 |
| EQST 338 Equine Science 2 | 2 |
| EQST 429 Equine Nutrition | 1 |
| EQST 430 Lameness Identification | 1 |
| Total | 14 |
| Elective Options - choose 4 hours from the following: |  |
| EQST 222 Equestrian Pedagogy Methods | 2 |
| EQST 225 Jumping 1 | 2 |
| EQST 224 CHA Riding Instructor Certification | 1 |
| EQST 226 Foundations of Equine-Assisted Therapies | 2 |
| EQST 230 Principles of Western Riding | 2 |
| EQST 240 Teaching Riding in Bolivia | 2 |
| EQST 276 Dressage | 2 |
| EQST 323 Eventing | 2 |
| EQST 326 Jumping 2 | 2 |
| EQST 328 Horse Show Judging | 2 |
| EQST 334 Competition Dressage | 2 |
| EQST 336 Methods and Materials of Equine-Assisted Therapies | 2 |
| EQST 337 Adventure Trails | 2 |
| EQST 421 Advanced Dressage | 2 |
| EQST 424 Principles of Training | 3 |
| EQST 427 Mini Prix Equitation | 2 |


| EQST XXX Independent Study | $1-3$ |
| :--- | :--- |
| EQST XXX Special Topics | $1-3$ |
| Total | 4 |
| Total in major | $55-61$ |

SRWM Major: Equestrian Studies - Performance Emphasis
BS (55-61 hours in major; 1-4 prerequisite hours)

| Prerequisite Courses | Credits |
| :---: | :---: |
| EQST 101 Introduction to Equestrian Studies | 1 |
| EQST 113 Horsemanship 1 (option to test out) | 1 |
| EQST 214 Horsemanship 2 (option to test out) | 2 |
| Total | 1-4 |
| Core Requirements | Credits |
| BADM 201 Business Communication | 3 |
| BADM 202 Accounting \& Finance Principles | 3 |
| BADM 212 Principles of Management | 3 |
| BADM 303 Entrepreneurship | 3 |
| BADM 320 Leadership Development or SRWM 229 Outdoor Leadership Training | 3 |
| Choose one course from: PSY 213 or PSY 217 or PSY 230 or PSY 301 | 3 |
| Choose one course from: COMM 115 or COMM 205 or COMM 215 or COMM 216 | 2-3 |
| SRWM 221 Principles of Sport, Recreation, and Wellness Management | 3 |
| SRWM 300 Program Planning and Evaluation | 3 |
| SRWM 475 Professional Development | 1 |
| SRWM 481 Senior Capstone | 2 |
| Must choose either an internship or 3 semesters of practicum: <br> SRWM 489 Internship or SRWM 486/487/488 Practicum I/II/III | 3-5 |
| SRWM 308 First Aid \& Safety or CPR/AED for the Prof. Res. \& First Aid or WFA or Lifeguarding - Current Certification upon graduation | 0-2 |
| Total | 32-37 |
| Equestrian Studies Concentration Requirements | Credits |
| EQST 231 Equine Facility Management I | 2 |


| EQST 238 Equine Science I | 2 |
| :---: | :---: |
| Total | 4 |
| Performance Emphasis Requirements |  |
| EQST 222 Equestrian Pedagogy Methods | 2 |
| EQST 224 CHA Riding Instructor Certification | 1 |
| EQST 225 Jumping 1 | 2 |
| EQST 230 Principles of Western Riding | 2 |
| EQST 276 Dressage | 2 |
| EQST 323 Eventing | 2 |
| EQST 334 Competition Dressage | 2 |
| EQST 424 Principles of Training | 3 |
| Total | 16 |
| Elective Options - choose 2 hours from the following: |  |
| EDUC 219 Educational Psychology | 3 |
| EQST 226 Foundations of Equine-Assisted Therapies | 2 |
| EQST 240 Teaching Riding in Bolivia | 2 |
| EQST 326 Jumping II | 2 |
| EQST 328 Horse Show Judging | 2 |
| EQST 331 Equine Facility Management 2 | 2 |
| EQST 336 Methods and Materials of Equine-Assisted Therapies | 2 |
| EQST 337 Adventure Trails | 2 |
| EQST 338 Equine Science 2 | 2 |
| EQST 421 Advanced Dressage | 2 |
| EQST 427 Mini Prix Equitation | 2 |
| EQST 429 Equine Nutrition | 1 |
| EQST 430 Lameness Identification | 1 |
| EQST XXX Special Topics | 1-3 |
| EQST XXX Independent Study | 1-3 |
| Total | 2 |
| Total in major | 55-61 |


| Sport, Recreation, and Wellness Management Major BS (47-52 hours in major; 14-16 hours in required minor) |  |
| :---: | :---: |
| Core Requirements | Credits |
| *SRWM 221 Principles of Sport, Recreation, and Wellness Management | 3 |
| BADM 201 Business Communication | 3 |
| BADM 202 Accounting and Finance Principles | 3 |
| BADM 203 Survey of Business | 3 |
| BADM 212 Principles of Management | 3 |
| BADM/COMM 218 Marketing Principles | 3 |
| BADM 303 Entrepreneurship | 3 |
| BADM 314 Human Resources Management | 3 |
| BADM 320 Leadership Development or SRWM 229 Outdoor Leadership Training | 3 |
| Choose 2 from: PSY 213, 217, 230, or 301 | 6 |
| Choose 2 from: COMM 115, 205, 215, or 216 | 5-6 |
| *SRWM 300 Program Planning and Evaluation | 3 |
| SRWM 308 or CPR/AED for the Prof. Res. \& First Aid or WFA or Lifeguarding - Current Certification upon graduation | 0-2 |
| *SRWM 475 Professional Development | 1 |
| *SRWM 486, 487, 488 Practicums I, II, III and/or SRWM 489 Internship | 3-5 |
| SRWM 481 Senior Capstone Seminar | 2 |
| Total | 47-52 |
| Minor (required - must be from preapproved list or by approval from the department chair) | 14-16 |
| Total in major + required minor | 61-68 |
| *courses also found within the Recreation minor Minors |  |

## Athletic Administration and Sports Management Minor: 16 hours

| Required Courses | Credits |
| :--- | :--- |
| SRWM 221 Principles of Sport, Recreation, and Wellness Management* | 3 |
| BADM 320 Leadership Development or SRWM 229 Outdoor Leadership <br> Training** | 3 |


| Recommended Electives - choose electives to total 16 hours as approved by advisor: |  |
| :---: | :---: |
| SRWM 314 Organization \& Management of Athletics | 3 |
| SRWM 306 Principles of Coaching \& Sports Management | 3 |
| SRWM 313 Sports Marketing \& Communication | 3 |
| SRWM 270 Global Sports Culture | 3 |
| SRWM 326 Strength \& Conditioning | 2 |
| SRWM 325 Certified Personal Trainer | 2 |
| SRWM 327 Sports Nutrition | 2 |
| SRWM 486/487/488 Practicum I, II, and/or III - site location approved by instructor* | 1-3 |
| BADM xxx - recommended and approved by advisor | 3 |
| PSY 200 level or higher - recommended and approved by advisor | 3 |
| COMM XXX - recommended and approved by advisor | 2-3 |
| Total in minor | 16 |

NOTE: Students with an SRWM major and Athletic Administration and Sports Management minor must have a minimum of 12 non-overlapping credits to complete the minor.
*courses also found in the SRWM major
**Students with an SRWM major will take one or the other based on course chosen for the major requirement.
The Athletic Administration and Sports Management minor prepares students for professional leadership roles within the sports industry including coaching and administration; educational, recreational, and club athletics; event and facilities management; sports marketing; media and public relations; recreation programming; product management; and emergent technologies within the growing sporting world.

## Equestrian Studies Minor: 14 hours

| Requirements | Credits |
| :--- | :--- |
| SRWM 221: Principles of Sport, Recreation, Wellness Management | 3 |
| EQST 101 Introduction to Equestrian Studies | 1 |
| EQST 214: Horsemanship II | 2 |
| EQST 222: Equine Pedagogy | 2 |
| EQST 329: Equine Science | 2 |
| EQST 330: Equine Facility Management | 2 |
| Equestrian electives (EQST 214 or above) | 2 |
| Total in minor | 14 |

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 will cultivate Christ-like character, enabling students to become effective servantscholars.
*See Program Guidelines and Requirements
*Note: No more than 8 hours of EQST courses may be counted towards graduation for students not majoring in SRWM with the equestrian options or minoring in Equestrian Studies.

Equine-Assisted Therapy Minor: 15 hours

| Requirements | Credits |
| :--- | :--- |
| EQST 101 Introduction to Equestrian Studies | 1 |
| EQST 238 Equine Science I | 2 |
| EQST 231 Equine Facility Management I | 2 |
| EQST 222 Equestrian Pedagogy Methods | 2 |
| EQST 226 Foundations of Equine-Assisted Therapies | 2 |
| EQST 336 Methods and Materials of Equine-Assisted Therapies | 2 |
| Equestrian electives (EQST 214 or above) | 14 |
| Total in minor | 4 |

A minor in Equine-Assisted Therapy will equip students to use horses to help individuals with disabilities in various settings through a variety of facilitation techniques. Students choosing to pursue a certification from the Professional Association of Therapeutic Horsemanship (PATH) can do so through an internship field placement.
*See Program Guidelines and Requirements
*Note: No more than 8 hours of EQST courses may be counted towards graduation for students not majoring in SRWM with the equestrian options or minoring in Equestrian Studies.

## Health Promotion and Fitness Minor: 16 hours

| Required Courses | Credits |
| :--- | :--- |
| SRWM 221 Principles of Sport, Recreation, and Wellness Management* | 3 |
| SRWM 237 Holistic Health | 3 |
| Current Certification - SRWM 308 First Aid \& Safety or CPR/AED for the <br> Professional Rescuer and First Aid or Lifeguarding or WFA/WFR | $0-2$ |
| Recommended Electives - choose electives to total 16 hours as approved by |  |
| advisor |  |$\quad$| SRWM 326 Strength \& Conditioning | 2 |
| :--- | :--- |
| SRWM 325 Certified Personal Trainer | 2 |
| SRWM 327 Sports Nutrition | 3 |
| SRWM 314 Organization \& Management of Athletics | 3 |
| SRWM 306 Principles of Coaching \& Sport Management | 2 |


| BADM XXX - recommended and approved by advisor | 3 |
| :--- | :--- |
| PSY 200 level or higher - recommended and approved by advisor | 3 |
| COMM XXX - recommended and approved by advisor | $2-3$ |
| BIOL 365 - Immunology | 4 |
| Total in minor | 16 |

NOTE: Students with an SRWM major and Health Promotion \& Fitness minor must have a minimum of 12 non-overlapping credits to complete the minor.
*courses also found in the SRWM major
The Health Promotion and Fitness minor prepares students interested in the applied health and wellness industry in local, regional, and national settings. Students can pursue certifications within the National Council on Strength \& Fitness. Students are prepared for careers in health promotion, fitness instruction, strength and conditioning coaching, and personal training.

## Recreation Minor: 16 hours

| Required Courses | Credits |
| :--- | :--- | :--- |
| SRWM 221 Principles of Sport, Recreation, and Wellness Management* | 3 |
| BADM 320 Leadership Development or SRWM 229 Outdoor Leadership <br> Training** | 3 |
| Current Certification - WFA/WFR recommended or CPR/AED for the Prof. Rescuer <br> \& First Aid or Lifeguarding or SRWM 308 First Aid \& Safety* | $0-2$ |
| Recommended Electives - choose electives to total 16 hours as approved by |  |
| advisor |  |

NOTE: Students with an SRWM major and a Recreation minor must have a minimum of 12 nonoverlapping credits to complete the minor.

* courses also found within the SRWM major
**Students with an SRWM major will take one or the other based on the course chosen for the major requirement.

The Recreation minor equips students interested in areas of private, public, and/or nonprofit recreation; camp programming; natural resource management; and adventure education. The minor addresses leadership styles and theory, principles and methods of program development, and the foundations of leisure theories and philosophies within the experiential educational context.

Sports Ministry Minor: 16 hours

| Required Courses | Credits |
| :---: | :---: |
| CRFM 325 Bible Study and Teaching Methods | 3 |
| SRWM/CRFM 227 Sports Ministry: The Integration of Faith and Sport | 3 |
| SRWM/CRFM 275 Methods of Administration of Sports Ministry | 3 |
| Select one course from the following: |  |
| CRFM 340 Theological Explorations in Youth Cultures and Ministry | 3 |
| BADM 320 Leadership Development or SRWM 229 Outdoor Leadership Training** | 3 |
| Recommended Electives - choose electives to total 16 hours as approved by advisor | 3-4 |
| MISS 242 Missions and the Global Church | 4 |
| SRWM 270 Global Sports Culture | 3 |
| SRWM 305 Sports Ministry Field Practicum | 2 |
| SRWM 306 Principles of Coaching and Sport Management | 3 |
| SRWM 240 Camps and Summer Programs | 3 |
| SRWM 241 Recreation and Tourism | 3 |
| INCL XXX - Intercultural course recommended by department | 1-4 |
| CRFM 340 (if not used in previous category) | 3 |
| *With approval, the field experience or practicum can be fulfilled through one of the following provided the course has a sufficient sports ministry component: |  |
| MIN 410 Ministerial Field Education | 3-6 |
| MISS 311 Cross Cultural Field Experience | 3-4 |
| INCL 311 Intercultural Experience | 1-4 |
| Total in minor | 16 |

**Students with an SRWM major will take one or the other based on the course chosen for the major requirement.

The Sports Ministry minor equips students with hands-on learning opportunities and a theological foundation for the practice of sports ministry within a variety of settings from crosscultural missions and church plants to recreation/adventure sports, fitness/exercise programs, and coaching or camping.

This minor also prepares students for parachurch sports ministries such as Athletes in Action, Fellowship of Christian Athletes, Missionary Athletes International, Sports Friends, Surge International, Ignite International, Push the Rock, Climbing for Christ, and Score International.

## Student Life

## New Student Programs

The mission of the Orientation and Transitions Office and curricula 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, the Orientation and Transitions programs help students and their families gain the information and interpersonal support they need to be successful.

The two components of the Transitions program are Fall and Spring Orientation and Transitions 102/104: Succeeding at Houghton (a required course for first-year students during their first semester on campus).

Fall Orientation gives all new students and their families a chance to have the campus all to themselves in the days just prior to the beginning of classes. President Lewis 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 Service on move-in day. Spring Orientation, though more condensed than the Fall offering, provides the same content and opportunities to new first-year and transfer students for the spring semester.

## Off-Campus Study Opportunities

Marcus Dean, Director | http://www.houghton.edu/academics/off-campus-studies | 585.567.9634 | OCS@houghton.edu

Houghton College students have access to several unique study-abroad options. Some are operated entirely by Houghton College, others in cooperation with the Council for Christian Colleges and Universities (CCCU) or other affiliated providers. See our website, https://www.houghton.edu/academics/off-campus-studies/, or visit the office located in the Chamberlain Center, Room 413.

Participating in an off-campus opportunity is an academic privilege that can enhance a student's education. Because of the additional demands of an off-campus setting, students are required to have a 2.5 or higher GPA to participate in any off-campus opportunity. Several of Houghton's opportunities require a 2.75 GPA.

| Houghton Opportunities | Affiliated Opportunities |
| :--- | :--- |

Houghton in East Africa
CCCU Off-Campus
American Studies CCCU
Australia Studies Centre CCCU
Contemporary Music Center CCCU
Latin American Studies CCCU
Los Angeles Film Studies Center CCCU
Middle East Studies CCCU

## Northern Ireland Semester CCCU <br> Oxford Summer School CCCU <br> Scholar's Semester in Oxford <br> Uganda Studies CCCU

## Other Off-Campus Opportunities

Au Sable Institute of Environmental Studies
BCA
Budapest Math Semester
Central Colleges Abroad
Chez Vous
Creation Care Studies
International Business Institute
Nazarene Theological College (Manchester, UK)
NOLS (National Outdoor Leadership School)
Oregon Extension
Spanish Studies Abroad
Trinity Semester in Spain

## Houghton Off-Campus Studies

## Houghton in East Africa

Off-Campus Opportunity (12-18 hours)
Director: Eli Knapp
An intensive spring semester experience, Houghton in East Africa offers the unique opportunity to study anthropology, history, animal ethology, linguistics, intercultural studies, and ecotourism in East Africa. Students will visit the Wahehe, Maasai, and other tribes; observe dozens of animal species in their natural habitat; and develop an understanding of the history, language, and culture of East Africa.

During the semester in East Africa, a student may earn between 12 and 18 hours.
INCL 311 Intercultural Experience may be taken as an optional course during the East Africa semester. Other Special Topics and Independent Study credits may be available when schedule permits.

## CCCU Best Semester Off-Campus Studies

As a member of the CCCU, an association of more than 100 private liberal arts Christian colleges, Houghton is able to offer these off-campus options.

American Studies CCCU
CCCU Off-Campus Study (16 credits)

At American Studies, your ability to share your similarities while respecting your differences may just be the one test you never knew you'd be taking. Whether it's public policy or global development, you will engage in what it means to be in community and to be a leader. These questions have shaped our political system for over two centuries. You'll continue this conversation as you interact in a dozen onsite visits with expert scholars and policymakers. Internships, professional mentorship, and service opportunities prepare you for an extraordinary and unique D.C. experience.
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.

Course Descriptions
Topics in Leadership and Vocation (5-week module, 3 credits)
Students complete experiential exercises and written evaluations to explore what it takes to sustain a way of living in a post-campus environment that is true to the core Christian convictions and commitments we have been developing on campus. Course readings, faculty and guest lectures, and American Studies alumni panels identify cultural and professional challenges to biblical living and leadership. They also provide experience-based perspectives on how others are addressing and overcoming these challenges. Students participate in the American Studies neighborhood engagement program, which allows each student to gain a comparable amount of exposure to the peoples and cultures of both federal Washington and the local neighborhoods of D.C. It includes three scavenger hunts by bus ("Bus Days") and work with local social service organizations. (Students volunteer at least 24 hours total.)
Internship (11-week part-time work, 6 credits)
This course provides an opportunity to work as an intern in a professional setting, to reflect substantively upon workplace experiences, to connect these experiences to classroom materials and discussions, and to acquire skillsets and professional competencies for your future life and work. During the 11-week course, interns usually work all day on Tuesdays, Wednesdays, and Thursdays for an average of 24 hours per week.

## Professional Development Practicum (1 credit)

Whether it is strategic communication or public policy that brings you to American Studies, you will join a leadership community bound by a shared commitment to learn how to translate your campus convictions into real-world application. Come to D.C. to catch a vision for what it takes to lead institutions against the injustices facing our nation and our world.
Public Policy Initiatives Track
Public Policy Analysis and Field Seminar (3 credits)
Students directly engage Washington, D.C.-based leaders and leading institutionsgovernmental and non-governmental, national, and international-that have a stake in a program-selected public policy debate. Students organize into small (three- or four-person) research teams. The main task is to write a Group Policy Report (GPR) analyzing competing economic, humanitarian, and rule-of-law national security priorities in the selected debate. The GPR is supported by field-based research, which includes participation in at least six 1-hour meetings with policy experts and two to three team interviews with policy professionals. Students present their GPR research findings and policy recommendations at a policy
conference in a congressional committee hearing room on Capitol Hill. A follow-up assignment challenges students to clarify the underlying values they prioritized when making policy recommendations. Specifically, in writing the Public Policy Ethics Plan, students explain the role of biblical ideas and theological traditions in a) how they came to understand a policy issue as a public justice issue; b) how they chose from among competing policy prescriptions; and, by extension, c) what they believe about the proper role of government in society.

Advocacy and Diplomacy Field Seminar (3 credits)
Each student writes an Individual Advocacy Case Study (IACS) analyzing a policy advocacy campaign led by a national political actor ("the protagonist"). The advocacy campaign is focused on a well-defined domestic or foreign policy or program. Students are encouraged to select a case related to their internships. The IACS documents specific advocacy goals and objectives adopted by the protagonist. A situational analysis explains the economic, political, and social context of the advocacy campaign. The IACS concludes with an evaluation of the protagonist's decisions about target audiences, messaging, and communication tactics. The study is supported by a lecture series by Washington, D.C.-based policy advocacy, diplomacy, and lobbying professionals. Students present their IACS to Washington, D.C.-based policy professionals who work directly on the issue.

## Strategic Communication Track

## Case Studies in Strategic Communication (3 credits)

Students design two case studies, both supported by Washington, D.C.-based fieldwork and original research. The group case study focuses on the ongoing immigration debate in light of the 2016 Presidential Election. The ASP student group interviews four different organizations who are stakeholders in the case study's decision point. The all-track case study allows students to compare how different organizations practice strategic communication in a crisis situation and the processes they use to document and respond to lessons learned from the experience. The case studies are presented in a mid-track conference. Students apply what they learn from the group case study project to design an individual case study focused on a strategic communication situation at the internship office or organization. A concluding conference allows students to share and compare research findings across institutional types and sizes. In sum, students learn how to directly engage world-class organizations and communication professionals to design original case studies to highlight best practices in formative research, strategic planning, message formation and storytelling, tactics and contingency planning, and outcomes-based measurement and evaluation.

## Advocacy and Development (3 credits)

Students work collaboratively in small teams for a real-world client to research and propose a communications plan in fulfillment of the client's project proposal. This exercise in persuasive communication seeks to build constituent commitment to the client's mission, strategic initiatives, and fundraising activities. Consequently, communication objectives aim to achieve clearly specified and measurable educational, advocacy, and revenue goals. In a separate assignment, students reference their client work experience as well as their case study work to explain how biblical teachings inform our assumptions about and practice of strategic communication, documenting ethical challenges and "faithful practice" strategies they discovered at each step in the strategic communication process.

Australia Studies Centre (ASC)
CCCU Off-Campus Opportunity (16 credits)
Together, the ASC and Christian Heritage College (CHC) offer a range of challenging and engaging programs. Course curriculum is centered on a foundation of faith while exploring the connections of local as well as national tradition and culture.

## Course Descriptions

## Core units (Culture Emphasis) required

The View from Australia (4 credits)
This unit will introduce students to the multiple historical and cultural narratives that influence contemporary Australian culture and identity. Through active service learning and examination of Australians' reactions to and handling of historical and current local, regional, and world issues, students will develop a basic understanding of Australian cultures and worldviews and be able to articulate and analyze connections between cultural beliefs, practices, and location. This unit will also help ASC students emphasize and critique their roles as experiential and mobile learners in a world where consumerism, tourism, and global nomadism are commonplace. Through reflective processes, students will consider their own cultural beliefs and practices and begin to distinguish these from biblical truth.

## Select one:

Australian Indigenous Worldviews (4 credits)
This unit will introduce some of the ways in which Aboriginal and Torres Strait Islander peoples view the world around them as well as providing insights into Aboriginal and Torres Strait Islander spirituality. It will also examine some of the core elements of Aboriginal and Torres Strait Islander worldviews to develop meaningful dialogue that may lead to the transformation of the Australian national life story.

## Indigenous Cultures in Australia and Aotearoa (New Zealand) (4 credits)

This unit will introduce some of the ways in which Aboriginal, Torres Strait Islander, and Māori peoples view the world around them as well as providing insights into Indigenous spirituality. It will also examine elements of Indigenous worldviews to develop meaningful dialogue that may lead to the transformation of the Australian and Aotearoa (New Zealand) national life story.
Elective Units (Discipline Emphasis) (4-12 credits)
Select two units from any of the following: School of Christian Studies, School of Business, School of Education and Humanities, School of Ministries, School of Social Sciences.

Internship (Practicum) (4 credits)
Select one practicum from the list of Social Science internships.
The ASC offers a limited number of internships (known as practicums or pracs at CHC) through the School of Social Sciences. Students who register for a prac will still take the ASC core units AS220 and AS221 or AS221 as well as a social science corequisite unit based on the prac. Each prac student completes 100 hours of placement and receives a professional mentor.
Practicums are available in the following fields: Human Services (social work, child protection, community center work, human resources), Youth Ministry, Youth Welfare, Chaplaincy, and Community Development.

Elective Courses

Courses are available from the following areas but vary by semester: Christian Studies, Business, Ministries, Social Sciences, Social Sciences Internships, Education, History, English, and Drama

Contemporary Music Center (CMC) CCCU
CCCU Off-Campus Opportunity ( 16 credits)
The world of music was an entirely different landscape 20 years ago. The CMC has been adapting to this business because music is a blend of old and new. Believe us: You'll be doing nothing but blending music, personalities, and the occasional throat-soothing smoothie for the next four months. Your days begin with morning classes followed by composing, performing, mixing, and promoting until you put your inspired soul to sleep. After 10 weeks of solid creativity, you're out on tour, living the experience and savoring every note. Students earn 16 semester hours of credit.

## Course Descriptions

## Core Courses:

## Faith, Music and Culture (3 credits)

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 credits)

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. Students gain an understanding of the structure and methodologies of a typical U.S. record company, including A and R, marketing, radio promotion, public relations, sales and distribution, product development, art, manufacturing, and business affairs.

## Practicum "CMC Tour" (1 credit)

The CMC Tour is the capstone experience of the semester. Students and faculty embark on a 68 -day tour of college campuses and other venues, mounting a show each night with full production-lights, sound, staging, and video. Every student is involved in the process as either a performer, part of the technical staff or a producer. The Business track students are also required to keep the tour on budget by tracking costs and providing a daily analysis of the budget.

## Artist Elective

## Essentials of Songwriting (3 credits)

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.
This is the practical application and technique of the working songwriter. Melody, lyrics, "hooks," points of view, and song logic will be covered. Solo writing as well as the concept of collaboration is introduced. Participants will work individually and in small groups.

Studio Recording (3 credits)
Artists, via both the classroom and the 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.

This course introduces students to the concept of nonlinear, non-destructive editing within the digital domain. Pro Tools HD 9.xx is used by students to assemble and record several finished master-quality recordings. Concepts include signal flow, mic placement, console automation, the recording process from basic tracks to mixing and mastering, loop creation and editing, soft sampler and MIDI control, RTAS and TDM plug-in instantiation, and building a project studio. All students will acquire enough experience to record, mix, and master their own tracks for demo purposes. The students in the Technical Track are assigned to help the artists record their songs.
Performance (3 credits)
In consultation with faculty and Business 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.

The semester begins with a series of showcases held during the first two nights of the first full week. Each student is required to perform two songs, solo. Prerecorded tracks or other student players are allowed to assist those students who do not play an instrument. As students define their musical style and public personae, additional concert appearances are required, which include the CMC Live concert series, scheduled each Thursday night. As the semester progresses, each student is effectively auditioning for the Road Tour, which happens towards the end of the tour.

## Business Elective

Strategic Management (3 credits)
Business Track students will assemble a successful artist roster and participate in the following activities on their artists' behalf: scheduling, creating a business plan, analyzing and forecasting trends in popular music, and advising and developing the artists with regard to their live show and recordings.

## Music Business Survey (3 credits)

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 is hands-on application through work with contracts, live show production, and career planning.

Advanced Media Marketing (3 credits)

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 Elective

Advanced Studio Recording (3 credits)
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 credits)
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 week-long 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 credits)
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 CCCU
CCCU Off-Campus Study (16-18 credits)
Your Latin American Studies Program (LASP) courses will allow you to think critically about your Latin American experience by connecting your surroundings with your classroom discussions. These experiences are everywhere. They're in the place where you sip coffee and develop relationships through a common language. They're in the local restaurant owner who welcomes you and teaches you about real international business. And they're in your three homestay experiences, each expanding your view of the cultural differences that make this corner of the world so remarkable. Students in all concentrations earn 16-18 semester credits.

Course Descriptions
Spanish Language (6 credits)
Students come to Costa Rica with varying degrees of fluency in Spanish, so LASP places them in the Spanish course that corresponds to each participant's level of oral proficiency based on a placement exam and interview during the orientation. Students study grammar, conversation, phonetics, and/or literature based on the results of their tests. Classes are taught by Latin Americans, which means participants hear and learn the language the way it is spoken in Latin America. This is reinforced during everyday interaction with Spanish-speaking host families.
Latin American History, Contemporary Issues (3 credits)
This seminar introduces the social, historical, political, economic, and theological currents that
constitute Latin American society and culture. The course includes readings and presentations by Latin American experts and field trips to various sites. This seminar is designed to introduce students to the following:

- 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
(Possible Credits: History, General Studies, Cross-Cultural Studies, Spanish)
Regional Study Travel (1-3 credits)
The LASP group typically visits the country of Nicaragua during the semester. The travel practicum component is not a vacation; it is an integral part of the learning process. Students will be required to attend conferences and maintain a journal of ideas and perceptions developed throughout the trips.
*The number of credits granted for this course is determined by each student's home campus.


## Concentrations

## Latin American Studies Concentration

Responses to Third-World Reality Seminar (3 credits)
Community Immersion/Internship (3 credits)
This concentration is interdisciplinary by design. Students are challenged in a seminar that includes diverse perspectives, broad readings and hands-on experience in a practicum setting. Course content is adapted to changes in Latin American society.

The concentration aims for participants to

- Demonstrate a critical understanding of how Latin Americans have chosen to respond to their realities;
- Re-examine their worldviews by exploring the beliefs of those they meet during the Practicum Experience;
- Articulate faith-informed positions regarding the social, political and economic problems of the region; and
- Allow their telos to direct their praxis, becoming Christian agents for change in the world.

Prerequisite: Equivalent of one year of college Spanish
Presentations by invited speakers are delivered in both English and Spanish while most required readings are written in English.

## Advanced Language and Literature Concentration

Language and Literature Seminar (3 credits)
Community Immersion/Internship (3 credits)
This concentration focuses on the social, cultural, political, economic, and religious issues of Latin America in the target language. Students examine how Latin Americans view their neighbors to the north and around the world through conversations, conferences, and related
literature. Presentations by invited speakers are delivered in Spanish, and all required readings and assignments are written in Spanish.

This concentration is designed to:

- Expand students' Spanish skills through additional language instruction and a community immersion experience outside of San José;
- Examine Latin America through its literature, theatre and arts, using them as a means to examine society and culture; and
- Develop cultural competencies through study and hands-on experience.

This concentration is 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.

## Business for Sustainability Concentration (Fall Semester only)

International Business Seminar (3 credits)
Community Immersion/Internship (3 credits)
International Business Concentration participants will explore the potential of international business in Latin America to create profit and contribute to social progress. Through site visits, assigned readings, and an internship/community immersion experience, participants will engage the complexities of practicing business in Latin America. Christian perspectives on economic justice, stewardship, and sustainable development guide learning experiences.

Students in the International Business Concentration will do the following:

- Complete an internship/community immersion experience during which students will explore the workings of a community development project/small business and form relationships with those in their host community;
- Articulate the relationship between Christian faith and business practice in Latin America and beyond;
- Participate in site visits that illuminate issues related to foreign investment in Latin America, sustainability in business, entrepreneurship and economic development; and
- Analyze the role of private enterprise, governments, and non-governmental organizations in poverty alleviation and economic development in Latin America.
Presentations by invited speakers are delivered in both English and Spanish while most required readings and written work are done in English.

Prerequisite: Course background should include macro-/microeconomics and introductorylevel management. Basic marketing and international relations or cross-cultural studies are also recommended.

Satisfactory completion of this program (grade C or better) fulfills the internship requirement for students majoring in Business Administration at Houghton, and students earn 6 business elective credits.

Los Angeles Film Studies Center CCCU
CCCU Off-Campus Study ( 16 credits - 6 from the internship and 10 from seminar study) Imagine pitching your screenplay to working Hollywood producers (it could happen) or attending the premiere of your short film. The Los Angeles Film Studies Center (LAFSC) provides a well-rounded yet in-depth understanding of what makes the business of Hollywood
run. Workshops combined with electives teach you relevant production processes and protocols as well as the vital skills of collaboration. Talent and literary agencies, managing companies, film developers, and postproduction facilities are just some of the exciting internship options. Students earn 16 semester hours of credit: 6 from the internship and 10 from seminar study.

## Course Descriptions

Internship: Inside Hollywood (6 credits)
Students participate in an internship experience in some aspect of the Hollywood film or television industry. These are nonpaying positions primarily in an office setting such as development companies, agencies, and producer's offices. Students work 20-24 hours a week throughout the semester.

## Hollywood Production Workshop (4 credits)

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. The course offers students the opportunity to make a motion picture production using Hollywood locations, resources, and protocol. Students participate in a competitive vetting process of scripts, pitches, and meetings much like the professional industry process. For example, those who want to direct submit reels for review, and writers participate in a rigorous development process in the first few weeks of the semester.

Faith and Artistic Development in Film (3 credits)
This course investigates the connection between faith and the artistic development of the filmmaker by 1) probing the culture of Hollywood and the culture it spawns, its challenges, ethics, expectations, and gifts; 2) delving into our own lives and looking at issues of identity and purpose; and 3) exploring how we might live out the best versions of ourselves as artists. What does our art—our storytelling, editing, cinematography, directing, or producing-reveal about us? How shall we then create and live?

Electives: Choose 1
Narrative Storytelling (3 credits)
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. The Structural track covers topics ranging from the history of story in culture and film to the mechanics of story creation to the development of story-writing skills. Instruction in the Technical Story track focuses on advanced methods of cinematography and postproduction and how those techniques can be used to improve visual storytelling. 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 credits)
An introduction to contemporary screenwriting, including an understanding of dramatic structure, character and dialogue development, and the writing process. Students strive to complete a full-length screenplay for a feature film. Whether novice or advanced, students are expected to develop and improve their skills. Emphasis is placed on the role of Christian faith and values as they relate to script content. The course is taught by a working, credited Christian
screenwriter.

## Professional Acting for the Camera (3 credits)

This advanced workshop in the practice and process of acting for the camera is aimed at students who desire to pursue acting as a career. Instruction includes an overview of current camera acting techniques and thorough discussion of the art of acting. The class primarily consists of acting scene work with all scenes being filmed and critiqued on the big screen. Students will also be required to pursue roles in student and independent films. 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 on developing the materials and relationships necessary for a successful career.

## Independent Study (3 credits)

This course may be selected by special request and arrangement. To be considered, students submit a portfolio and a project proposal. Students with approved projects will be appointed a mentor who is a professional in the Hollywood industry. Projects could include further development of a portfolio or reel, critical research, or a senior thesis project.

Please Note:
The Independent Study option is not guaranteed and is intended for students with experience in a specific area of cinema or those needing to complete a senior project for graduation. The number of independent studies offered each semester will be determined by LAFSC faculty, the availability of a suitable mentor, and approval from your school's film/communications department head.

Middle East Studies CCCU
CCCU Off-Campus Opportunity (16 credits)
Located in Amman, Jordan, the Middle East Studies Program (MESP) immerses students in the daily life, language, food, culture, religion, and politics of one of the oldest continuously inhabited cities in the world. Learn firsthand from locals how to work, play, and serve in the Middle East as you become their neighbor-and, soon, their family-while learning adventurously at MESP. Forget everything you know about classroom academics; this is learning through immersion.

MESP students learn firsthand from locals who live out the subject matter. You will live, work, eat, play, and travel among these people, becoming a member of their neighborhoods. By the end of the semester, your life will have become entangled with theirs-their cultures, languages, passions, and joys. We are committed to this Christ-centered approach, aiming to serve, process, and evaluate your immersion as you grow in your understanding of what it means to be an incarnational follower of Jesus in a land that needs such followers now.

## Course Descriptions

Introduction to Arabic Language (4 or 6 credits)
This course aims to teach students basic skills in colloquial Arabic, emphasizing the practical use of the language and encouraging interaction with locals in everyday life, on the streets, in taxis, during homestays, and at service projects. Students will have class three to four days per week, learning everyday vocabulary and colloquial grammar. To enhance the students' use of
colloquial Arabic, MESP arranges weeklong homestays with Muslim and Christian Arab families. Ideally, each family has an English-speaking contact person of the same gender as the student so that students can communicate their needs, ideas, and feelings. The homestay is an essential step in learning to appreciate the nature of life in an Arab society.

## Islamic Thought and Practice (4 credits)

This course examines many dimensions of Islamic faith-historical, legal, doctrinal, popular, and behavioral-from early times to the present. Emphasis is on contemporary and "popular" Islam (the beliefs and practices of Muslims), including issues such as 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.

This course, like all MESP courses, has a strong experiential component with students being encouraged to learn about Islam by developing relationships with local Muslims. In addition, the course frequently makes use of local scholars, experts, religious figures, or other locals to enhance students' encounters with the religion and history of the region.

## Conflict and Change in the Middle East (4 credits)

This course examines the Israeli-Palestinian conflict, which many scholars now call "the 100 Years War." Beginning with the collapse of the Ottoman Empire, this course traces the origin of the conflict from the early encounters between Arabs and Jews in Palestine to the contemporary struggle to achieve a final status agreement between Israelis and Palestinians.

We will begin the course in Amman with readings, documentaries, and lectures as well as interactions with local Jordanians and Palestinians regarding of their experiences and perspectives on the conflict. We will continue the course during a travel component to Israel/Palestine, where we will hear from a variety of speakers who have experienced the conflict firsthand, including academic experts and local professionals working towards a reconciliatory solution. In addition, students will have homestays with both Palestinian and Jewish Israeli families, giving further opportunity to put a "personal face" on the conflict by getting to know ordinary people on both sides.
Because the conflict and its consequences—human, geographic, social, cultural, and politicalare so proximate to the MESP experience, students learn intimately the complexity and difficulty of reaching peace in a small land shared by two peoples with competing civilizational visions.

## Peoples and Cultures of the Middle East (4 credits)

This course examines the diverse mosaic of the Middle Eastern peoples and culture through the prism of various societies along the MESP journey. Jordan will provide the primary everyday context for this course, but recent semesters have also included life in Israel/Palestine and travel to Morocco, Turkey, and Jordan. While the selection of travel locations depends upon safety conditions prevailing at the time of travel, the course nonetheless seeks to introduce students to patterns of thought and behavior that characterize the region generally without losing sight of important national and religious differences. The Middle East is a multiethnic, multi-confessional region, and travel allows students to observe and study a great variety of social, religious, and political groups. In addition, students learn about pressing issues related
to gender, conflict, economic development, and cultural identity that currently animate the many religious and political communities they visit.

Northern Ireland Semester (NIS)
CCCU Off-Campus Opportunity (16 credits)
NIS is designed to extend your program of study by providing experiential learning not available on your home campus. All students are required to take the Peacemaking and Reconciliation in Northern Ireland course.

During the Northern Ireland Semester, you'll experience the deep impact of the religious and political conflict that has been an important part of Northern Ireland's history. Sit at a table with residents who lived through "The Troubles" as you hear firsthand accounts of the hunger strikes and political clashes that beset Belfast in recent decades. Pray in ancient cathedrals that predate the birth of your home country. Hike among green pastures and ancient forests.

## Christian Thought and Practice (3 credits)

This course combines the study of Christian theology with its application to all areas of life. It focuses on essential doctrines of the Christian faith, including Scripture, the Trinity, salvation, the Church, creation, and the eternal Kingdom. The unity of divine revelation and the contemporary applicability of the Scriptures are emphasized. Additionally, this class will challenge students to consider the transforming presence of Christ in every aspect of life. Habits and disciplines practiced by Christians within different historical traditions of the Church will be explored with particular attention to the history and practice of Celtic Christianity. Through readings, reflections, and the practice of spiritual disciplines, students will develop an informed theology and practice of the Christian life. Does not meet major/minor credit. Liberal Arts.

## Intercultural Communication (3 credits)

A study of the process of interpersonal communication in one's own culture and the principles of effective communication within another cultural context. Attention is given to values, ethnocentricity, nonverbal communication, and cultural change. COMM elective (major/minor), INCL elective (major). Liberal Arts.

## Ireland and Western Civilization (3 credits)

This course explores the history of Ireland as a window into the general historical development of Western Europe. While it's not entirely true that the Irish "saved civilization," as one historian has argued, the island has played an important role in the history of Europe. Particular attention will be given to Ireland's role in the formation of medieval Europe, the Protestant Reformation and religious wars, colonialism, the Industrial Revolution, and Ireland's role in World War I and II. The course concludes with a study of modern Ireland as a significant arena for political conflict as well as global capitalism. HIST (major/minor). Liberal Arts.

## Irish Art and Culture (3 credits)

A study of Irish art forms such as painting, sculpture, architecture, and film in the cultural context of Irish politics, economics, and religion, this course provides a general introduction to
the theory and practice of formal art and design principles. It combines academic coursework with visits to important cultural sites in Ireland and Northern Ireland as well as guest lecturers from contemporary artists. ART Gen Ed.

Irish Literature (3 credits)
A reading-intensive overview of the literary history of Ireland through examination of selected works of poetry, prose, and drama in English by some of Ireland's most significant writers. Readings include works by William Butler Yeats, Oscar Wilde, James Joyce, C. S. Lewis, Seamus Heaney, Michael Longley, and others. Among eras to be considered are the Celtic Renaissance and "The Troubles" as literary subject and inspiration. ENGL (major/minor elective). Liberal Arts.

## Peacemaking, Reconciliation, and Conflict Transformation in Northern Ireland (3 credits)

An introduction to the basic principles and strategies of conflict transformation through a "place as text" study of the conflict in Ireland, Northern Ireland, and the greater United Kingdom. Students will visit sites of conflict as they explore the historical development of the conflict in Ireland known as "The Troubles." Students will also discuss contested artifacts and interpretations as they personally interact with politicians, prisoners, victims, and others involved in the conflict. Students will be challenged to apply their understanding of the conflict in Ireland to peace and reconciliation efforts in other parts of the world, including their own communities. POLS (major/minor elective), INCL (major elective). Liberal Arts.

Scholar's Semester in Oxford
Off-Campus Opportunity (17 credits)
Scholar's semester is designed for students seeking an academically rigorous and robust experience. In the tutorial, students meet individually with Oxford scholars to discuss topics chosen from subjects in the disciplines of history, literature, languages, philosophy, musicology, art, science, and more.
Course Descriptions
Primary Tutorial (6 credits)
Each week during the term, students have their primary tutorial.
Secondary Tutorial (3 credits)
Students have their secondary tutorial every second week during the term and choose a different subject from that studied for the primary tutorial; in all other respects, secondary tutorials have the same characteristics as primary tutorials.

## TUTORIAL TOPICS

Tutorials topics are listed under nine topics (disciplinary concentrations): Classics, English language and literature, history, history of art, modern languages, musicology, philosophy, psychology, and theology.
Undergraduate Research Seminar (4 credits)
Seminar discussion classes enable students to reflect on methodological issues within their discipline and integrate material covered in tutorials and University of Oxford lectures. Seminars are offered in the following seven disciplines: Classics, English language and
literature (for English and modern language students), history, history of art, philosophy, psychology, and theology.

## Selected Topics in British Culture (4 credits)

This course examines selective themes from the British past and the traces they have left in present-day Britain. Students explore how events, people, and ideas from the past are remembered, forgotten, and misremembered in literature, politics, philosophy, religion, art and architecture, and the material landscape and investigate the meaning, use, and abuse of the past.

Students attend lectures, viewings, and field trips but spend most of their time doing independent study to produce detailed essays.

Students may receive credit in one of 11 disciplines by submitting work in that discipline: Classics, gender studies, history, history of art, history of science, literature, musicology, philosophy, political science, psychology, or theology.
Oxford Summer School
Off-Campus Opportunity ( 6 credits)
Oxford Summer School fuels intellectual development at all levels of education. Engage in scholarship guided by Oxford's primary method of pedagogies: the tutorial. Go one on one with your professor to defend your argument and support your positions, ready yourself for graduate school, or just become a better thinker. When you're not flexing your brain, keep it sharp with student outings and field trips.

## Lecture Series

All students participate in the lecture series "The Christian Tradition in the British Isles." This course includes lectures and field trips to sites of major interest, providing the historical context for work undertaken in the seminars.

## Seminars

All students participate in two different seminars. Students are evaluated by seminar leaders based on written work. Seminars can be taken for undergraduate or graduate credit.

## Tutorials

As part of their seminars, students participate in individual tutorials during the second part of the program. While meeting one on one with their seminar leader, students develop, discuss, and defend an essay related to the students' seminar topic.

Uganda Studies Program (USP)
Off-Campus Opportunity
The USP offers a range of options and flexibility. USP students may live either on campus or with a host family for the semester. Along with coursework, students are encouraged to participate in Ugandan life and explore the intricacy of cross-cultural relationships learning from and with Ugandans.

Course Descriptions
REQUIRED COURSE:
Faith and Action in the Ugandan Context (4 credits)

This combines a traditional classroom component (e.g., readings, discussion, small group processing, lecture) with a broad spectrum of experiential learning (e.g., living and studying with Ugandan students, homestays with Ugandan families, travel to various regions of Uganda and Rwanda, exposure to both missionaries and Ugandans involved in various social services). The course begins at orientation and continues through the debrief retreat. Evaluation methods may include written assignments, verbal presentations, class participation, informal and formal debrief sessions, creative projects, journal entries, and one-on-one discussions.

## Options:

AFRICAN CONTEXT COURSES (3-12 credits)
African Literature (3 credits)
This course examines the literature of sub-Saharan Africa. Students will become familiar with the distinctive features of literature from Eastern, Western, and Southern Africa as well as the genres of oral literature, fiction (both short story and novel), poetry, and drama.

## Religions in Contemporary Uganda (3 credits)

Religion plays a very important role in the lives of Africans, dominating their social, political, and
economic lives. This course examines the three religions that have had a strong influence in Uganda: African Traditional Religion, Christianity, and Islam.
East African History from $\mathbf{1 8 0 0}$ to Independence (3 credits)
This course examines the history of Uganda, Kenya, Tanzania, and Rwanda from 1800 to independence.
East African Politics since Independence (3 credits)
This course focuses on the politics of Uganda, Kenya, Tanzania, and Rwanda, starting with the struggle for independence and concluding with an analysis of current political events in each country.
USP Elective Course (3-12 credits)
Cross-Cultural Practicum (3 credits)
This course seeks to expose students to a wide variety of perspectives and practices in crosscultural engagement here in Uganda as students seek to understand their own unique vocations in a global context.

Kiswahili (3-6 credits)
Luganda (3-6 credits)

## Other Off-Campus Opportunities

## Au Sable Institute of Environmental Studies <br> Affiliated Off-Campus Mayterm and Summer

Au Sable Institute, a Christian environmental learning center headquartered in Michigan, offers Houghton students Mayterm and summer courses in biology, chemistry, geology, and geography. 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 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 science-area special topics courses. Approval is needed through the appropriate department (usually Biology) working with the Au Sable faculty representative (Dr. Eli Knapp) and Houghton's Off-Campus Studies Office. A maximum of 8 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.
The Au Sable Institute of Environmental Studies offers environmental science programs for students and adults of all ages: primary and secondary school, college, and graduate school. The academic program offers field-based, university-level courses in environmental studies and environmental science at campuses in the Great Lakes region (Mancelona, MI), Pacific Northwest (Whidbey Island, WA), South India (Thiruchirapalli, Tamil Nadu) and Latin America (Vara Blanca, Costa Rica).

## Chez Vous

Affiliated Off-Campus summer opportunity

The Chez Vous summer program is a relational language-study experience organized into six different study tracks from Intermediate to Advanced language levels. Each track is about six weeks long and contains two semester courses in French. These courses progress in close harmony with the 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.

All Chez Vous courses taken through Houghton will be registered as French special topics courses as needed for the student. Approval is required through the Department chair working with the student's advisor and the current French professor or Houghton's OffCampus Studies Office.

## Creation Care Study

Affiliated Off-Campus Opportunity (12-14 credits)
The Creation Care Study Program (CCSP) is a 15-week residential interdisciplinary environmental studies program based in Belize and New Zealand. The core curriculum consists of three 4-credit courses-God and Nature, Tropical Ecosystems (Belize program); Ecosystems of New Zealand (South Pacific program); and Sustainable Community Development—and a 3credit core course, Introduction to Environmental Literature. In addition, students in the Belize program can take a two-week internship (2 credits) while the New Zealand students do an experiential sustainable community development week. CCSP courses are composed of several integrated block classes taught over the span of the semester. Both programs include extensive homestay periods. Some homestays are a part of academic courses, and others are for cross-cultural learning and program enrichment. All courses receive Houghton credit.

Belize Program
15-17 credits
Located along the Caribbean coast of Central America, Belize is home to a host of Caribbean and Central American cultures and ethnic groups as well as inspiring ecological diversity, including neotropical rainforests with their assortment of monkeys, jaguars, and toucans and the largest barrier reef in the western hemisphere. Within this context, CCSP students examine sustainable development and tropical ecology through a Christian lens of creation care and stewardship by utilizing field studies in Belizean villages, tropical rainforests, mountain streams, and Caribbean atolls. Students also have the opportunity to take part in interest-specific internship and practicum experiences with Belizean organizations seeking regeneration and renewal of the land and communities. In Belize, intrepid students participate in a semester abroad experience like no other. Throughout the semester, the schedule also allows for independent exploration of Belize (and neighboring countries) during breaks and free weekends.

## New Zealand Program

15-16 credits
From New Zealand's snow-capped mountains to its topaz coastline, students explore a wonderland of unique ecosystems. Home to about $12 \%$ of all the earth's endangered species and a world-leading innovator in conservation and environmental management, New Zealand is an ideal place for studying care for creation. A rigorous academic semester comprising ecology, theology, environmental literature, and sustainable community development is enhanced by a community living experience from the first day students move into CCSP's Old Convent campus to homestays with locals. The schedule also allows for independent travel during a week-long mid-semester break and during free weekends.

## Course Descriptions

ENGL 307 Environmental Literature ( 3 credits - as offered as part of the CCSP)
This course introduces students to the landscape of environmental literature, both past and present, providing a solid grounding in the field. Through key readings, discussions, and reflections on various environmental literature forms including short story, essay, and poetry, students consider what makes literature "environmental" and why this field of literature was and is so important in shaping an "earthy" faith and worldview. (ENGL credit for major/minor or general elective)
THEL 305 God and Nature (4 credits)
Central to the mission of the CCSP, this course helps students develop a theology of creation that understands humans as stewards of the Earth. Through the study of Scripture and other relevant texts, students explore the theology of creation, biblical stewardship, questions of faith and science, and Christian responses to current environmental problems. (THEL credit for major/minor or general elective)
INCL/SOC 305 Introduction to Sustainable Community Development (4 credits)
This course explores how knowledge of ecological systems, globalization, political economy, and the biblical worldview come together in the pursuit of development that is community-minded, just, and ecologically sustainable. Through readings, lectures, and fieldtrips, students study
complex issues in sustainable development such as the nexus of poverty, the environment, justice, and the many practical challenges associated with sustainable community development. (Major/minor credit for sociology, INCL elective or optional elective for Development Concentration, or general elective)

BIOL 205 New Zealand Ecosystems (4 credits)
In this field-based ecology course, students not only explore New Zealand's fascinating terrestrial and near-shore marine ecosystems but also undertake a terrestrial ecosystems research project. In addition to studying New Zealand ecosystems, this course is also designed to help students scientifically reach a broad understanding of global environmental issues. (Fulfills half of General Education Natural Sciences requirement, Biology major/minor, or general elective)

## LING 110 Te Reo Maori Language (1 credit)

We might ask, "Why choose to learn te reo Maori (the Maori language) if one is only in New Zealand for four months?" The answer lies in the close proximity of language and culture. Te reo Maori and tikanga Maori (Maori culture) are intertwined, so learning te reo Maori allows students to access 255 ea o Maori (the Maori world) and Maori worldviews. As students compare tikanga Maori with other cultures within New Zealand and overseas, they'll develop an understanding of the central roles of language, culture, place, and heritage in shaping identity and in giving direction and meaning to life.

Belize Tropical Ecosystems ( 200 course level) (4 credits)
In this field-based ecology course, students explore forest, stream, and near-shore marine environments-coral reef, mangrove, and sea grass-with experts in Belize. In addition to studying these various ecosystems, this class is also designed to help students scientifically reach a broad understanding of global environmental issues. (Fulfills half of General Education Natural Sciences requirement, Biology major/minor, or general elective)
Belize Internship Elective (2 credits)
Internships in Belize allow students an extended period (two weeks) to engage with local topics and issues-to take knowledge and skills they are developing in their experiences and coursework both in Belize and in courses prior to Belize and begin acting upon them. In the past, students have had internships in tropical organic agriculture, conservation, community development, ecotourism, healthcare, traditional medicine, community health, education, and even local government. Internships are set up, based on the interests and backgrounds of the students, with many different organizations the CCSP has developed relationships with over the years. During this 80 -hour internship experience, students stay with Belizean homestay families, where they are able to gain greater perspective on Belize and develop lasting relationships. (Internship or general elective credit)

## International Business Institute

Affiliated Off-Campus Opportunity (11-week summer program)
The International Business Institute is designed to give students in economics, business management, and related areas a distinctive opportunity for a term of study that incorporates the international dimension of these fields in an experiential context overseas. The program is 10 weeks long and includes periods of residence in key locations as well as coordinated visits
and presentations in the major political and economic centers of Russia, the European Union, India, and China.

Students are generally eligible after successful completion of their junior year. Under certain circumstances, sophomores and graduating seniors will be considered for admission. (Prerequisites: one year of economics, both micro and macro elements; one course in accounting or finance; one course in management; one course in marketing)

## Course Descriptions

IBI-331 Comparative Economic Systems (3 credits)
A survey of the major economic systems, including the underlying ideological foundations and institutional arrangements. The major theoretical aspects of various types of systems are covered in terms of political economy and their central organizational features. Special attention is given to changes and developments in the former Soviet Union and Eastern Europe. The European Union is covered in depth along with the major Asian economies of China and Japan.

## IBI-339 Global Marketing (3 credits)

The theory and practice of contemporary global marketing management. The context or environment of international marketing management is covered along with the task of marketing within a variety of national and cultural markets. Major topic areas included in this course are the global marketing environment; global market research, including market entry and product planning; and marketing strategy in a global context. Assigned projects will involve students in global marketing research and analysis as well as case studies.

## IBI-350 International Trade and Finance (3 credits)

A survey of the analytical and institutional aspects of international trade and finance. The historical and contextual elements are the foundation for the examination of current theoretical and empirical approaches to international economic and financial relations. Major areas of emphasis include international finance, international trade, and regional economic integration. Special attention is also given to the issues of globalization and the problems of economic development.

## IBI-357 Global Business Strategy (3 credits)

This course is intended to integrate the field experiences and presentations by guest faculty and practitioners in international business management with reading and academic work including the recent developments and literature in this field. Students are expected to prepare analytical reports on the various firms and institutions visited on the field seminar. Major topics covered in this course include the role of the multinational firm in the global economy, international and global business strategy, cultural adaptation, and organizational behavior in the global firm. The discussion of ethical values and issues in global management will also be included in this and other courses.

## National Outdoor Leadership School

The National Outdoor Leadership School (NOLS) has been the leader in wilderness education since 1965. At NOLS, you will learn technical outdoor skills, leadership, and environmental ethics in some of the world's wildest and most awe-inspiring classrooms. With courses ranging
from 10 days to a full academic year, we attract highly motivated students who want to learn how to lead.

## Nazarene Theological College (Manchester, UK)

With course units in the areas of theology, youth work, culture, history, art, and English literature, Nazarene Theological College offers a range of study options. Come and immerse yourself in life as a student in Britain for a semester. In this program, you will be able to study alongside students from all over the UK and abroad. During the semester in Manchester, a student may earn between 12 and 18 hours in classes covering areas such as biblical studies, theology, church history, pastoral theology, and English literature. Courses taken at Nazarene Theological College will be received as Houghton College Special Topics courses.

Manchester itself is a great city in the northwest of England. It boasts world-class theatres, art galleries, orchestras-and two great "football" teams, of course. It is just an hour from North Wales or the glories of the Peak District and two hours by train from the Lake District or from London. Try a day in Stratford and take in a Shakespeare play, or visit "Wordsworth Country" or the home of the Brontës. Whatever it is you long to experience in Britain, Manchester is not far from it!

## Additional Off-Campus Opportunities

The College also has affiliation agreements with other institutions and organizations to provide further study abroad opportunities. These programs permit students to study in Europe, Russia, Asia, China, Latin America, and Africa. Services provided by the Off-Campus Studies Office assist students in program selection and preparation for departure with advice on visas, passports, immunizations, cultural adjustment, and re-entry.

For any of the affiliated opportunities in the chart below, financial aid is applied as follows:

1. Any non-Houghton or outside aid normally remains intact.
2. To receive Houghton tuition-based aid, students may apply for a limited number of Houghton aid awards. This is to be done through the Off-Campus Studies office within the first month of the semester prior to the off-campus semester. Please contact the OCS office as soon as you are considering a semester off-campus.

## Tabular Listing of Off-Campus Opportunities

| Houghton Opportunities |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Honors in London | HC Catalog <br> Courses | Grades on <br> Transcript | HC Fin Aid <br> Awarded |  |  |  |
| Houghton in East Africa | Yes | Yes | Yes |  |  |  |
| Affiliated Opportunities |  |  |  |  | Yes | Yes |


| GlobalEd | HC Catalog Courses | Grades on Transcript | HC Fin Aid Awarded |
| :---: | :---: | :---: | :---: |
| American Studies (Washington, D.C.) | Yes | Yes | No |
| Australia Studies Centre | Yes | No | No |
| LA Film Studies (Los Angeles) | Yes | Yes | No |
| Latin American Studies (Costa Rica) | Yes | Yes | No |
| Middle East Studies | Yes | Yes | No |
| Northern Ireland | Yes | Yes | No |
| Oxford Scholar's Semester | Yes | No | No |
| Oxford Summer School | Yes | Yes | No |
| Other Opportunities | HC Catalog Courses | Grades on Transcript | HC Fin Aid Awarded |
| AuSable Institute of Environmental Studies | Yes | Yes | No |
| BCA Study Abroad | No | No | No |
| Budapest Semester in Mathematics | No | No | No |
| CCSP (Creation Care Study Program) | Yes | Yes | No |
| Central College Abroad (IA) | No | No | No |
| Chez Vous | Yes | Yes | No |
| Christian College Consortium Visitor | No | No | No |
| Contemporary Music Center | No | No | No |
| Daystar University - Kenya | No | No | No |
| International Business Institute | Yes | Yes | No |


| Laval Language Institute (Q.B.) | No | No | No |
| :---: | :---: | :---: | :---: |
| Nazarene Theological College (Manchester, <br> UK) | Yes | Yes | No |
| NOLS (National Outdoor Leadership School) | No | No | No |
| Oregon Extension | No | No | No |
| Rochester Area Colleges | No | Yes | N/A |
| Spanish Studies Abroad | No | No | No |
| Trinity Christian (Seville, Spain) | No | No | No |
| Uganda Studies Program | No | Yes | N/A |
| WNYHE Consortium |  | No |  |

## Course Descriptions

| Course Description Codes <br> Code <br> 4 | Explanation <br> Number of credit hours for the course (variable: may be 1, 2, 3, 4, or <br> more) |
| :--- | :--- |
| $1,2,3$, or 4 | Credit hour options <br> F |
| S | Course offered in fall |
| F\&S | Course offered in spring |
| May | Course offered in fall and spring |
| Summer | Course offered in Mayterm |
| WSP | Course offered in a summer session |
| OD | Course offered when schedule permits |
| F21 | Course offered on demand |
| F22 | Course offered in fall, odd-numbered years |
| S22 | Course offered in fall, even-numbered years |
| S23 | Course offered in spring, even-numbered years |
| F21/S22 | Course offered in spring, odd-numbered 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 cancelled at the discretion of the Dean of the Faculty. For a definitive listing of course offerings and times, consult the appropriate course offerings for each semester or special session, as published on the Registrar's Office website.

## ACCT 111 Introduction to Financial Accounting <br> 3-WSP <br> Provides an introduction to basic theory and practices of financial accounting. Emphasis on proper recording of business transactions and understanding the effect of transactions on the financial statements of proprietorships, partnerships, and corporations. Includes analysis of key financial statement data. Taught at participating high schools to selected, qualified students.

## ACCT 211 Financial Accounting

3-F
Basic theory and practices of financial accounting. Emphasis on proper recording of business transactions and understanding the effect of transactions on the financial statements of proprietorships, partnerships, and corporations. Includes analysis of key financial statement data. Prerequisite: BADM 201

## ACCT 212 Managerial Accounting

3-S
Basic theories and practices of providing accounting information to organizational decision-makers. Prerequisites: ACCT 211, BADM 201
ACCT 295, 395, 495 Special Topics 1-4-WSP
Group study of special topics.
ACCT 311 Intermediate Accounting I
3-F
Intensive study of financial accounting issues including measurement, valuation, and reporting of balance sheet items. Prerequisites: ACCT 211, ACCT 212
ACCT 312 Intermediate Accounting II
3-S

Extension of ACCT 311 with emphasis on accounting for notes, bonds, pensions, leases, taxes, and equity transactions and on preparation of cash flow statements. Prerequisite: ACCT 311

## ACCT 314 Cost Accounting

3-S23
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
3-F21
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 on the legal and ethical requirements of the auditor, including Sarbanes-Oxley. Prerequisite: ACCT 212 or permission

## ACCT 316 Federal Income Tax

3-F20
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. Prerequisites: ACCT 211, ACCT 212, or permission
ACCT 323 Tax Practicum (P/U)
1-S
Supervised preparation of tax returns through the Voluntary Income Tax Assistance program
using resources and guidance provided by the IRS. Prerequisite: ACCT 316 or permission

## ACCT 418 Advanced Accounting

## 3-S22

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

## ACCT 421 Internship in Accounting (P/F)

2-6-F\&S, Summer
Supervised experience in corporate or public accounting combining the theoretical background of coursework with practical activities in a professional setting.

## ADC 295 Special Topics

3-WSP (Houghton Online)
ADC 441 Worldviews at Work
3-WSP (Houghton Online)
Provides managers and other workers with an enhanced understanding of how worldviewsin particular, a person's basic faith commitments-impact the workplace and vice versa. Introduction to the relationship between religion and the culture of organizations designed to help one identify and begin to reflect (or extend reflections) on the relevant issues. Liberal Arts.
ANTH 195, 295, 395 Special Topics
1, 2, 3, or 4-WSP
Liberal Arts.

## ANTH 243 Cultural Anthropology

3-F\&S
Cultural and social aspects of human behavior; comparison of cultures. Fulfills half of General Education Social Sciences and half of Changing World. Liberal Arts.
ANTH 291, 391, 491 Independent Study
1, 2, 3, or 4-WSP
Liberal Arts.
ANTH 293 East African Anthropology
4-S

Intensive study of East African ethnic populations-their beliefs, behaviors, work, and societies. Lectures, which include foundational anthropological theory as well as ethnic descriptions, are augmented by frequent class discussions; field trips; and interactions (including homestay) with Dorobo, Maasai, and other local East African ethnic groups. Sociology, Intercultural Studies elective credit. Houghton East Africa. Liberal Arts.
ANTH 295, 296 Special Topics in Anthropology
1-4-WSP
Topics offered according to interest and demand. Liberal Arts.

## ANTH 310 Intercultural Competencies

3-F
Explores the knowledge, attitudes, and skills for transitioning into, adapting to, and working 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. Fulfills part of General Education Changing World requirement. Required for INCL 311. Liberal Arts. Prerequisite for INCL majors/minors: INCL 201 and ANTH 243 or permission

## ANTH 315 Human Ecology

4-S
Integrates knowledge from several disciplines and seeks to combine the social and natural sciences. Theory is interwoven with basic concepts, and emphasis is on how humans view and interact with the natural environment. Themes and topics studied include control, complexity/simplification, sustainability, adaptation, place, mechanization, efficiency/inefficiency, centralization/decentralization, resilience, parks, economies of scale, specialization/diversification, development,
and poverty. These themes are discussed in relation to five basic human societies: hunting and gathering, pastoral, agricultural, industrial, and global. Collaborative research is undertaken depending on the opportunity. Houghton East Africa. Fulfills part of General Education Changing World requirement. Liberal Arts.

## ANTH 350 Culture Change and Globalization

 4-F20Globalization is spreading rapidly and is causing significant culture change to all societies from traditional to folk to contemporary. Focusing on historical and current case studies, this course makes students aware of current cultural changes and gives them the theoretical knowledge to understand, empathize with, and assist people wrestling with culture change. Pre- or corequisite: Cultural Anthropology. Liberal Arts.

## ARAB 101 Arabic Language

4-WSP
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 in the academic and intellectual community. While not the "street language" of any particular country, MSA provides an excellent grounding towards fluency in any dialect in the Arab world. Those wishing to go further will be directed to an intensive Arabic program within the Arab world. Liberal Arts.

## ART 115 Foundations of Digital

## Communication

## 2-F\&S

Survey of the essential digital toolsets involved in the production of static and time-based visual media. Through lecture, demo, and studio projects, students are introduced to the foundational technical and design concepts necessary for creating effective visual messages in a digital studio environment.

## ART 131 Introduction to the Visual Arts

2-F
Overview of Western cultural history, visual arts, basic principles, and underlying philosophy of art. Emphasis on the contemporary. Fulfills General Education Art \& Music requirement. Liberal Arts.
ART 132 Art and Architecture in Context in Europe
4-May18
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. Fulfills General Education Art \& Music requirement. Liberal Arts.

## ART 195 Special Topics

1, 2, 3, or 4-WSP
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.
ART 211 Drawing I
2-F\&S
Basic introduction to drawing media, techniques, and concepts. Exploration of form and space in two dimensions in varied subject matter. Fulfills General Education Art \& Music requirement. This course has a lab fee.

## ART 212 Abstract Drawing

4-S
Explores the possibilities of drawing based on conceptual rather than perceptual knowledge. A wide variety of conceptual sources are 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. Diverse experimentation with surfaces, materials, and applications is encouraged. Emphasis is placed on the selection of an idea in terms of both process and materials. The development of abstraction in the $20^{\text {th }}$ century and relevant major artists are studied and used for reference. Fulfills General Education Art \& Music requirement. This course has a lab fee.

## ART 215 Etching

2-F
Introduction to the basic techniques, processes, and history of etching. Etching was developed in the early $16^{\text {th }}$ century and has been a favorite medium of many artists including Rembrandt, Goya, Picasso, and Dine. Focus is on traditional methods of working etching plates. Intaglio techniques include several rich and varied processes. The class covers etching, drypoint, aquatint, use of soft and hard grounds, and the combination of techniques on a single plate. Printing techniques are demonstrated, including color printing and registration of multiple plates. Students work through and generate a body of images associated with a self-directed theme. Fulfills General Education Art \& Music requirement. This course has a lab fee.

## ART 216 The Art and History of Film Genre

 4-SHistory of the film genre. Designed to critically evaluate the philosophical, aesthetic, and narrative grouping of genre including westerns, horror, romantic comedy, war, gender, science fiction, fantasy, animation, documentary, family drama, ensemble, biopic, film noir, crime, and experimental. Subcategories such as crime/gangster or crime/prison are also considered. Fulfills General Education Art \& Music requirement. Liberal Arts.

## ART 221 Painting I

4-F\&S

Visual problems of space, form, value, and color studied in oil paint. Basic problems of pictorial composition and interpretation through representational/abstract approaches to observing life and still life. Fulfills General Education Art \& Music requirement. This course has a lab fee.
ART 224 Motion Media Design \& Animation 4-F
Introduction to the foundational concepts of communications design in which time is an important formal element. Studio work explores how images and design change over time in ways that enhance narrative or interactive communication: time and motion explored as formal properties, history of timebased communication and interactivity, and extensive studio work developing key concepts in time and communication. Fulfills General Education Art \& Music requirement. Liberal Arts. This course has a lab fee.

## ART 228 Digital Video I

4-F\&S
Introduction to the movie-making process using digital tools. Students 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. Fulfills General Education Art \& Music requirement. This course has a lab fee.

## ART 231 Ancient Art History

4-F21
History of world art from prehistory to the $14^{\text {th }}$ century. Exploration of pivotal Western monuments and the role of art as visual communication of religious, political, and social concerns. Fulfills General Education Art \& Music requirement. Liberal Arts.
ART 232 Renaissance and Baroque Art History 4-S17

History of Western art from the $14^{\text {th }}$ to the mid- $18^{\text {th }}$ century. Relation of form and content to cultural attitudes. Unique contributions of major artists. Fulfills General Education Art \& Music requirement. Liberal Arts.

## ART 234 Art and Architecture in Europe

4-May22
Approximately 20 days studying art and artists from antiquity to the present. Readings, journal-keeping, and questions pertaining to site-specific works are requirements. Intended for the Art major. Off-campus study abroad course. Fulfills General Education Art \& Music requirement. Liberal Arts.

## ART 235 African Art History

4-WSP
A selective survey of 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 on seeing and understanding art in the context of daily life, religion, and society. Off-campus study abroad course in East Africa. Fulfills General Education Art \& Music requirement. Liberal Arts.

## ART 236 Asian Art History Survey

4-S23
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. Fulfills General Education Art \& Music requirement. Liberal Arts.

## ART 237 Modern and Contemporary Western Art History

4-F20
History of Western art from the mid-18 ${ }^{\text {th }}$ through the early $21^{\text {st }}$ century. Analysis of major movements and artists as well as underlying philosophy and cultural influences.

Fulfills General Education Art \& Music requirement. Liberal Arts.

## 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, and discussion. Fulfills General Education Art \& Music requirement. Art major/minor. This course has a lab fee.

## ART 242 Three-Dimensional Design

2-F
Theory and application of elements and principles of design to three-dimensional small-scale sculptural structures. Awareness and comprehension of three-dimensional structural and spatial relationships. Fulfills General Education Art \& Music requirement. Art major/minor. This course has a lab fee.

## 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. Fulfills General Education Art \& Music requirement. This course has a lab fee.

## ART 251 Sculpture I

4-S22
Survey of traditional sculptural ideas, tools, techniques, and materials. Group and individual projects dealing with conceptual and formal problems of additive and subtractive uses of wood, metal, and stone. Exploration of nontraditional materials and processes, installation, and contextual considerations. Fulfills General Education Art \& Music requirement. Lab Fee.

## ART 261 Introduction to Printmaking

2-F
Screen-printing and relief methods of printmaking are explored through handprinted media in multiples alongside the
creation of unique images made with monoprinting techniques. Discussion and research on the historical context of printmaking center on its relationship to innovation. Nontoxic methods of printmaking are applied in the development of contemporary methods in studio practice. Fulfills General Education Art requirement. This course has a lab fee.

## ART 262 Screen-printing

2-F21
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 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 work through and generate a body of images associated with a self-directed theme or narrative. Fulfills General Education Art \& Music requirement. This course has a lab fee.
ART 263 Typography and Letterpress Printing 4-S22
Introduction to letterpress printing techniques with hand-set metal type through limitededition printing of text and images. Discussion of the innovation of moveable type and typography in relation to their influence on human civilization, language, and the written word; the industrial revolution; and modern economic structure. Exploration of the historic and contemporary practice of publishing hand-printed media in multiples through selfdirected themes that combine text and image in book form. Fulfills General Education Art \& Music requirement. This course has a lab fee.

## ART 264 Relief Printing

2-WSP
Introduction to the basic techniques, processes, and history of relief printing. Focuses primarily on the woodcut medium. Students work through and generate a body of work associated with a self-directed theme. Fulfills General Education Art \& Music requirement. This course has a lab fee.

## ART 265 Fiber Studies \& Printmaking

2-F
Extensive investigation of fiber through the process of papermaking by hand. Traditional Eastern and Western methods of papermaking are explored with a focus on building ecologically sustainable art practice, responsible harvesting of natural fiber, and reuse of a wide variety of recyclable materials. The development of sculptural and functional work is supplemented through demonstrations, studio research, and lectures surveying historical and contemporary work in fiber. Fulfills General Education Art \& Music requirement. This course has a lab fee.

## ART 266 Sculptural and Moveable Book

 2-WSPStudents construct models and finished pieces that can be used as standalone artist books or combined to create sculptural book forms. Using various materials, unusual openings, and interesting closures, students explore creative book forms and develop their own unique books. Fulfills General Education Art \& Music requirement. This course has a lab fee.
ART 267 Lithography
2-S22
Introduction to the basic techniques, processes, and history of lithography, especially stone lithography. Covers basic theory and current processing methods. Students generate a body of work associated with a self-directed theme or narrative. Fulfills General Education Art \& Music requirement. This course has a lab fee.

## ART 271 Ceramics I

4-F\&S
Basic study of clay as a three-dimensional artistic medium, working with hand-built and wheel-thrown techniques. Foundation of the historical development of ideas and techniques and the role of ceramics in contemporary art. Introduction to glazing, decorating, and firing processes. Students produce a body of 12 pieces. Fulfills General Education Art \& Music requirement. This course has a lab fee.

## ART 280 Creative Modern Portraiture

## 3-Online

Focusing on the human subject, students gain the skills needed to create consistent, branded, and professional portraits. Topics of study include understanding natural light, posing, choosing locations, camera settings, and lens choice, working with the needs of a client/subject, consistent professional imagery in all shooting environments, and defining a unique style of work. Special considerations for the different type of professional opportunities: engagements and weddings, maternity, newborn, family, and high school seniors. This course is intended for online students. On-campus students may take this course with special permission by the chair of the Art department.

## ART 282 Experimental Darkroom Processes

4-F
Examination of various darkroom imagemaking and printing techniques, including pinhole, cyanotype, projection and photogram as well as toning and hand-coloring in traditional black-and-white prints. Fulfills General Education Art \& Music requirement. This course has a lab fee.

## ART 283 Introduction to Digital Photography

3-Online-WSP
4-F\&S
Introduction to the fundamentals of digital photography, including camera operation and
file management. Students explore photography as a visual language through personal expression, principles of composition, and the medium's contemporary history. Format includes discussions, demonstrations, critiques, lectures, and student presentations. Fulfills General Education Art \& Music requirement. The oncampus course has a lab fee.
ART 284 Introduction to Digital Imaging 4-F\&S
Introduction to the tools and concepts of creating and manipulating images with digital technology. The primary software application is Adobe Photoshop. Instruction is projectbased and relies on class critique. Students also learn to recognize digital equivalents of traditional art styles, techniques, and forms. Fulfills General Education Art \& Music requirement. This course has a lab fee.

## ART 291, 391, 491 Independent Study (no fee)

1, 2, 3, or 4-WSP
ART 292, 392, 492 Independent Study (with fee)
1, 2, 3, or 4-WSP
ART 295, 296, 297, 298 Special Topics
1, 2, 3, or 4-WSP
Designed to provide students with opportunity to explore avenues not covered in other listed courses. Examples include Figurative Clay Sculpture, Illustration, Portrait Media, Landscape Painting, Landscape Photography, Furniture as Fine Art, Textile and Fiber Design, Watercolor Painting, and Public Studio.

## ART 311 Anatomy and Figure Drawing

2 or 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. Fulfills General Education Art \& Music requirement. This course has a lab fee. Prerequisite: ART 211

## ART 314 The Art and History of Film

 4-S22Introduction to the history, craft, theory, and critical content of film-15 films viewed in class, 20-25 for outside-of-class research work. Fulfills General Education Art \& Music requirement. Liberal Arts.

## ART 321 Painting II

4-F\&S
Intensive study of a single subject, which is then extended into a series to develop a more sophisticated personal visual statement. Examples of subjects include still life, figure, interiors, and abstraction. Fulfills General Education Art \& Music requirement. This course has a lab fee. Prerequisite: ART 221
ART 324, 325, 326, 327 Advanced Topics in Film
2-S
A topical seminar in film studies exploring topics such as director in depth (looking at one director's major works), environmental themes in film, film traditions from various countries, tech noir, films since 1945, women in film, Shakespeare and film, and literature into cinema. Liberal Arts.

## ART 345 Graphic Design II

## 4-S21

Further development of conceptualization and visualization skill within graphic design media, including computer design. Assignments directed towards professional practice. Fulfills General Education Art \& Music requirement. This course has a lab fee.

## ART 348 Fine Arts of Southeastern Europe

 4-WSPArt history of Catholic southern Europe and especially of the Venetian Empire, principally painting and architecture. Comparison with the art and iconography of Orthodox Europe, especially Serbia and Macedonia. Some study of Ottoman Muslim art during time in Bosnia. Houghton Balkans Semester Program. Fulfills

General Education Art \& Music requirement. Liberal Arts.

## ART 351 Sculpture II

4-WSP
Exploration of three-dimensional form/space through individual creative experiences working with various sculptural media. Fulfills General Education Art \& Music requirement. This course has a lab fee. Prerequisite: ART 251
ART 363 The Visual Book
4-F21
Expanding on the foundational knowledge of printmaking and typographic processes gained in introductory-level courses, focus is on production and publication of limited-edition, hand-bound books that explore the relationship between text and image. Advanced methods of bookbinding and printmaking techniques are demonstrated and supplemented by discussion and readings centered on concept development. The historic and contemporary practice of publishing hand-printed media in multiples is explored through self-directed themes. Prerequisites: ART 261 and/or 263. This course has a lab fee. Fulfills General Education Art requirement.

## ART 371 Ceramics II

3-S
Intermediate study of clay as a threedimensional artistic medium. Continuing development of conceptual content, form and craftsmanship through self-directed, individual projects using wheel-throwing and/or hand-building processes. Additional instruction in glaze chemistry and kiln-firing. Fulfills General Education Art \& Music requirement. This course has a lab fee. Prerequisite: ART 271

## ART 378 Photography for Business

## 3-Online

Covers basic shooting considerations for the business professional. Lighting, setup, positioning, lens choice, camera settings, and
basic editing for real estate, headshots, and products including 2D and 3D works of art as well as other areas. Discussions include shooting formats, digital file management, and creating imagery for social media and basic marketing. Intended for online students. On-campus students may take this course with special permission by the chair of the Art Department.
ART 380 Lighting for the Still and Moving Image
4-F
Studio class examining the technical and practical aspects of lighting for photography and video. Students learn to assess the qualities of light and how to effectively use strobe, continuous, and natural lighting on location and in the studio. Fulfills General Education Art \& Music requirement. This course has a lab fee.

## ART 382 Advanced Topics in Photography

4-S21
Continued exploration of photographic techniques and concepts emphasizing digital workflow, including digital camera operation, digital output, and strobe lighting. Intensive, conceptually driven studio assignments reinforced through readings, discussions, critiques, and lectures. Fulfills General Education Art \& Music requirement. This course has a lab fee. Prerequisite: ART 283

## ART 383 Applied Design Internship

1-4-WSP
Students apply classroom knowledge in a realworld 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 to try to match objectives with an appropriate experience. Requires 60-100 hours in the field. Prerequisites: Junior status, coursework at 300 level in internship media

## ART 384 Digital Imaging II <br> 4-F20

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 structured by Art faculty to meet the needs of the advanced student. Fulfills General Education Art \& Music requirement. This course has a lab fee. Prerequisite: ART 284

## ART 395 Special Topics

1, 2, 3, or 4-WSP
Designed to provide opportunity for students to explore avenues not covered in other listed courses. Examples include Figurative Clay Sculpture, Illustration, Portrait Media, Landscape Painting, Landscape Photography, Furniture as Fine Art, Textile and Fiber Design, Watercolor Painting, and Public Studio.

## ART 421 Painting III

4-F21
Emphasis on individual development and refinement of personal expression in various approaches to painting. Fulfills General Education Art \& Music requirement. This course has a lab fee. Prerequisite: ART 321

## ART 447 Graphic Design Internship

4-WSP
Practical experience to include interviews, placement, and work experience in a situation of mutual benefit to the student and publishing house or designer.
ART 461 Advanced Topics in Printmaking 4-S22
At the intersection of traditional and contemporary practice, this course is centered on material transformation as it relates to print media and sculpture. Expanding on skills gained through introductory levels of printmaking and fiber studies, methods in etching and lithography are explored in the development of a body of work that examines the sculptural potential for prints and paper as
site-specific installation. Material and conceptual development are driven by individual student proposals and supplemented by critical discussions, readings, work samples, demonstrations, and lectures. Fulfills General Education Art \& Music requirement. This course has a lab fee. Prerequisite: ART 261 or ART 265

## ART 471 Ceramics III

4-S22
Advanced projects in clay. Emphasis shifted from purely investigatory exercises in form toward clarity of expression and execution. Individually designed projects with tutoring by instructor. Fulfills General Education Art \& Music requirement. This course has a lab fee. Prerequisite: ART 371
ART 479 Professional Practices in Photography
4-S22
3-Online-WSP
Advanced projects course allowing students to refine and focus their work within one of several genres of photography. Examines professional practices, including establishing a photography business, marketing techniques, creating estimates and invoices, and copyright issues. Students develop a cohesive portfolio through group discussions and critiques. Fulfills General Education Art \& Music requirement. This course has a lab fee.

## ART 485 Senior Studio

2-F
A seminar-studio course required for all Studio Art majors. Students 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. This course has a lab fee. Prerequisite: Senior standing with a major in Studio Art

ART 486 Senior Seminar and Exhibition
2-S
Seminar studio that includes development of a quality body of work for exhibition and formal documentation through a 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. This course has a lab fee.

## BADM 102 Personal Finance

1 or 2-WSP
Basic understanding of Christian perspectives of stewardship including management of money and credit, insurance, budgeting, investment, and retirement planning. Elective credit only.

## BADM 103 Introduction to Business

3-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 155 Computer Applications and Issues 3-WSP

Introduction to fundamental concepts utilizing a computer as the tool. Contemporary projects produced using integrated applications software. Selected topics include the Internet; operating systems; and creating and evaluating documents, worksheets, and presentations. Guidelines for selecting computer hardware and software are addressed. Task-oriented based on in-class projects or exercises per week.
BADM 191, 291, 391, 491 Independent Study 1, 2, 3, or 4

## BADM 200 Business Writing

3-F Module 1 (Houghton Online)
Emphasis on improving ability to communicate effectively through writing,
identification of audience and purpose, clear reasoning and rational organization, suitable wording, and effective rewriting.
BADM 201 Business Communication 3-F\&S
Study of communication theory and principles as applied to business writing, oral communication, and data reporting. Students learn to prepare professional business presentations utilizing and coordinating these three major areas of business communication.

## BADM 202 Accounting and Finance Principles

 3-S3-S Module II (Houghton Online)
Introduction to accounting and finance concepts most used by managers including understanding and analysis of financial statements, budgeting, working capital management, and financing alternatives.

## BADM 203 Survey of Business

3-Online-WSP
3-F
Examines the purposes, organization, and major activities of business operations in forprofit and nonprofit contexts. Emphasis on understanding the integrated nature of decision-making as students learn the relationships among business, government, and consumer in a global economy. Survey course designed to provide an overview of business fundamentals in the free-enterprise system to include business ownership, accounting and financials, economics, marketing, people and process management, technology, and strategy.

## BADM 212 Principles of Management

## 3-F\&S

Familiarizes students with the knowledge, roles, responsibilities, and skills required of new managers. Special attention to managerial decision-making, problem-solving, information, and human resources issues.

## BADM 213 Business Law I

3-F21

Introduction to the basic legal environment of business, contracts, sales and leases, and negotiable instruments.

BADM 214 Business Law II
3-F20
Basic law covering forms of business organization, agency, bankruptcy, government regulations, and professional liability.
BADM 218 Marketing Principles
3-F\&S
3-F Module I (Houghton Online)
Comprehensive examination of proactive and reactive business strategies and tactics that create and fulfill demand for consumer products and services and result in high customer satisfaction and ongoing, long-range business-consumer relationships.
BADM 220 Advanced Computer Applications 3-WSP
Mastery of programs and processes of selected business computer applications. Develops skills in charting, tracking, and setting deadlines using project-based software. Students learn how to organize large volumes of data to facilitate access, reporting, and summarizing to support business decisions.

BADM 295, 395, 495 Special Topics
1, 2, 3, or 4-WSP
Group study of special topics.
BADM 303 Entrepreneurship
3-S
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 304 Social Media Marketing
3-F
Develops understanding of consumers' social interactions, examine the various social media channels available to marketers, and learn how to build social marketing strategies and track their effectiveness.

## BADM 309 Statistics

4-F\&S, 3-May
Descriptive and inferential statistics: measures of central tendency and variability, discrete and continuous probability functions, sampling, estimation, hypothesis testing, correlation, regression, chi-square, and ANOVA. Liberal Arts.

## BADM 310 Corporate Finance

3-F
Financial analysis, budgeting, working capital management, capital budgeting, sources of financing, and cost of capital. Prerequisites: BADM 201, ACCT 211, ACCT 212, ECON 210 or permission

BADM 312 Advertising Principles
3-F
3-S Module II (Houghton Online)
Historic and present-day overview of the American advertising business and its effectiveness in creating consumer demand for products and services using print, broadcast, and Internet-based media. Examines and critiques creative executions targeted at key audience segments. Typically includes a group advertising project.

## BADM 313 International Business

3
Examination of the variations in business management and practices in developed and less-developed countries worldwide. Prerequisites: BADM 212 and ECON 210 or permission
BADM 314 Human Resources Management 3-S
3-Summer Module I (Houghton Online)
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. Prerequisite: BADM 212 or permission
BADM 315 Public Relations Principles

## 3-S

3-F Module II (Houghton Online)
A study of the development, implementation and management of professional public relations programs designed to create, enhance, or protect the reputations of businesses or organizations. Explores the roots of public relations and proceeds to analyze communication strategies and relationship-building efforts with publics critical to the organization's success in the marketplace. Prerequisite: BADM/COMM 218 BADM 316 Corporate Finance II 3
Covers the major decision-making areas of corporate finance and some selected topics in financial theory. Reviews the theory and empirical evidence related to the financing policies and investment of a firm and attempts to develop decision-making ability in these areas. May include M\&A, dividend policy, corporate reorganizations, portfolio and working capital management, and other selected topics. Some areas covered more in depth include investment decision-making under uncertainty, cost of capital, capital structure, pricing of selected financial instruments and corporate liabilities, and dividend policy. Prerequisite: BADM 310
BADM 317 Management Information Systems
3
Design, maintenance, and monitoring of information systems. Includes systems and audit concepts. Prerequisites: BADM 201, ACCT 211, ACCT 212

## BADM 319 Marketing Research

3-S Module I (Houghton Online)
Study of the techniques used in collection and analysis of secondary and primary data and use of that format for decision-making in a marketing environment. Student teams work on real business marketing research projects.

Prerequisite: ECON 201 (or permission), BADM/COMM 218

## BADM 320 Leadership Development

3-F
3-S Module I (Houghton Online)
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 leadership responsibilities and abilities. Intended not only for individuals who aspire to positions of leadership or those who think they have what are normally considered "leadership" abilities but for anyone seeking to understand how to better be able to influence others for good, regardless of their profession, position, gifts, or calling. Fulfills requirements for majors in BADM and SRWM departments. Liberal Arts.

## BADM 323 Leading Change

3-S Module II (Houghton Online)
Examination of the critical factors for managing organizational change successfully-that is, to become more productive and competitive. Topics include driving forces for change, common approaches to change initiatives, competencies required to be effective change leaders and managers, the effect of change on an organization's stakeholders, and measurement of results. Case studies are used, and there is heavy reliance on student experience with change initiatives in their own organizations.

## BADM 325 Project Management

3-F Module II (Houghton Online)
Project management concepts are fundamental to most activities undertaken by organizations and individuals. Students learn the elements of initiating, planning scheduling, resource allocation, executing, controlling, and closeout for functional projects and other management initiatives. Team leadership and team dynamics are
explored as essential elements of a successful project. Opportunities to apply technology to project management are addressed. Prerequisite: BADM 212 or permission
BADM 330 Operations Management 3-F20

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: BADM 201 or permission, BADM 202 or ACCT 211, and must have satisfied the General Education requirement in Mathematics
BADM 335 Integrated Marketing Communication
3
A culminating study of how marketing communication disciplines coalesce to form powerful, ongoing communication campaigns that demonstrate, elevate, and sustain the mission, products, and services of profitmaking or not-for-profit organizations (including government). Uses case studies of various IMC initiatives to analyze their approaches, outcomes, and overall effectiveness. Prerequisites: BADM/COMM 218, BADM/COMM 312, BADM/COMM 315, BADM 319

## BADM 340 eCommerce

3
Designed to give students exposure, understanding, and know-how in how the Internet is transforming and facilitating key business functions. Exploration of the organizations that have succeeded and failed and 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 341 Work Team Dynamics

3-Summer Module II (Houghton Online) Focus on dynamic processes affecting taskoriented work groups, including formation, development, maturity, and effectiveness. Addresses goals, interactions, problem recognition, interventions, and team meetings.
BADM 343 Multicultural Teams and Leadership
3-F20
Students engage with concepts from various disciplines applied to being part of a multicultural team both in the States and internationally. These concepts are framed within the biblical principle of servantleadership. Concepts studied include cultural frameworks and other researched concepts helpful for understanding how to be part of a multicultural team and to understand differences and similarities relating to leadership across cultures. Fulfills part of General Education Changing World requirement. Liberal Arts.

## BADM 345 Employment Law

3-Summer Module II (Houghton Online)
A conceptual and functional analysis of the legal framework and principles of industrial and employment relations with special emphasis on discrimination based on race, sex, age, and disability; testing and performance appraisal; wrongful discharge; labor/management issues; and employee benefits.
BADM 350 Economic Freedom 2-WSP
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. Liberal Arts.

BADM 407 Investment Management

## 3-S

A study of stocks, bonds, mutual funds, commodities, real estate, investment analysis, and portfolio theory. Prerequisites: ACCT 211, ACCT 212, and BADM 310 or permission
BADM 410 Free Enterprise and Value Creation
0-1-F\&S
Advanced course for students focused on entrepreneurship or small business management. Students work collaboratively with faculty in researching, planning, and implementing startup 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. May be taken multiple semesters for 4 credits toward graduation and counts as internship credit.

## BADM 414 Workplace Excellence

## 1-4

Advanced topics in human resources (HR), ethics, change management, workforce planning, talent management, competitive strategy, total rewards, and HR performance metrics. Designed to help students catch the excitement of (and respect for) the responsibilities associated with managing the people resources of any organization, to provide the opportunity and structure for advanced personal preparation for entry into the field of HR management, and to simultaneously prepare students to pass the Society of Human Resources Management Assurance of Learning Assessment Exam. Prerequisite: BADM 314 or permission
BADM 421 Internship in Business (P/F)
0-6-F\&S, Summer
Supervised experience in a business firm combining practical activities with integrating studies.
BADM 431 Security Analysis \& Portfolio
Management

0, .5, 1-F\&S
Advanced investment course in which students who have excelled in business, economics, and/or accounting courses manage a portion of the Houghton College stock portfolio under faculty supervision. By application only. May be taken multiple semesters for a maximum of 4 credits toward graduation.

## BADM 435 Management Consulting

Practicum
0, 1-F\&S
The course around which the Houghton Consulting Group (HCG) is formed. The HCG assembles student consulting teams each fall and spring semester. These teams work on consulting projects for local, regional, national, and/or global "client" organizations as well as special departmental projects for Houghton College. Students may apply and be approved for internship credit required for majors in business administration or accounting.
BADM 446 Staffing and Performance

## Management

3-S Module II (Houghton Online)
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 also include strategies to recruit, retain, and develop a diverse workforce. Prerequisite: BADM 314 or permission
BADM 448 Employee Training and Development

3
An examination of employee training and human resource development in various organizations. Topics include the development, administration, and evaluation of training programs; employee development;
career development; and organizational change. Issues in employee development (including assessment of employee competencies, opportunities for learning and growth, and the roles of managers in employee development) are explored. Prerequisite: BADM 314 or permission

## BADM 450 Managing Total Rewards

3-F Module I (Houghton Online)
Explores the concept of total rewards along with its fundamental elements and strategic prevalence in attracting, motivating, and retaining valued employees. Additional focus allocated to compensation and benefits, relevant philosophies, designs, and best practices, incorporating latest issues/trends along with potential implications. Students participate in strategic goal and program development, examining how total rewards, compensation, and benefit designs impact individual/organization performance and contribute to defining organization culture. Prerequisites: BADM 314 or permission
BADM 475 Organizational Development
3-Summer Module I (Houghton Online)
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 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. Prerequisite: BADM 212 or permission

## BADM 481 Senior Capstone: Strategic Management

4-S
Senior capstone focusing on the strategic management process necessary for competitive advantage and effective organizational planning and development.

Integrates the concepts, techniques, and knowledge of core administration areas vital to strategic management: marketing, operations, human resource development, finance, accounting, economics, and behavioral and ethical leadership. Prerequisite: BADM 201, senior status or permission.
BADM 496 Honors in Business
3-WSP

## BIBL 101 Biblical Literature

3-F\&S, Summer
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 the New Testament church as a backdrop for the message. Literary, historical, and theological aspects of selected texts are explored. Prerequisite for all Bible courses and THEL 209. Fulfills General Education BIBL 101 requirement. Liberal Arts.
BIBL 191, 192, 291, 292, 391, 392, 491, 492
Independent Study
1, 2, 3, or 4-WSP
Liberal Arts.

## BIBL 221 Biblical Interpretation

3-S
Survey of the history of interpreting Scripture and various methods used from ancient to postmodern. Students will practice on various texts and consider issues of application. Liberal Arts. Prerequisite: BIBL 101

## BIBL 231 Pentateuch

3-F21
Analysis of critical and historical background, literary content, and development of the religion of Israel. Relevancy of contents. Liberal Arts. Prerequisite: BIBL 101

## BIBL 233 Jesus and the Gospels

3-F20
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. Prerequisite: BIBL 101
BIBL 261 Holy Land Tour
3-WSP
Through visits to cultural, historical, and archaeological sites in Israel, biblical history and geography are elucidated. Visits are preceded by lectures and reading of preparatory materials and followed by lectures and discussions. Liberal Arts. Prerequisite: BIBL 101
BIBL 270 Old Testament Historical Books
3-WSP
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. Prerequisite: BIBL 101
BIBL 272 Gospel and Epistles of John 3-WSP
John's Gospel and epistles analyzed from a literary and theological perspective with attention to historical questions and the nature of the Johannine community. Liberal Arts. Prerequisite: BIBL 101

## BIBL 275 Women in the Bible

3-F21
Examination of biblical descriptions of particular women as well as investigation of texts that teach about women as a class. Using various interpretive approaches, explores the main social, political, and religious arrangements affecting the lives of women in Scripture and for people in the redeemed community in the current era. Liberal Arts. Prerequisite: BIBL 101
BIBL 280 Poetic Books
3-S22
Consideration of the structure and contents of Hebrew poetry and wisdom literature with a comparative study of similar genres of literature in the Near East. Liberal Arts. Prerequisite: BIBL 101

## BIBL 282 Pauline Epistles

3-WSP
Brief overview of Paul's life followed by survey of Pauline letters (Romans through Philemon). Literary and historical analyses, occasionally supplemented by other types of study, are used to understand Paul's message and the theology of the letters. Liberal Arts. Prerequisite: BIBL 101

## BIBL 295, 395 Special Topics in Bible

 3-WSPStudy of select blocks or groups of Scripture related to a particular topic or theme. Liberal Arts. Prerequisite: BIBL 101
BIBL 310 Early Prophets of the Old Testament 3-WSP

A study of the prophets during the period of the Monarchy as recounted in the historical and prophetic books of the $8^{\text {th }}-7^{\text {th }}$ centuries B.C., during the period of the Assyrian Empire (Isaiah, Hosea, Amos, Jonah, Micah, Nahum, and Zephaniah). Covers historical context as well as literary and theological issues. Liberal Arts. Prerequisite: BIBL 101
BIBL 312 Later Prophets of the Old Testament 3-WSP
Study of the prophets from the end of the $7^{\text {th }}$ through the $5^{\text {th }}$ centuries B.C., during the period of the Babylonian and Persian empires (Jeremiah, Ezekiel, Habakkuk, Obadiah, Joel, Haggai, Zechariah, and Malachi). Covers historical context as well as literary and theological issues of the books. Liberal Arts. Prerequisite: BIBL 101
BIBL 335 General Epistles 3-WSP
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. Prerequisite: BIBL 101
BIBL 355 Old Testament Theology 3-F21

Examination of the teaching of the Old Testament, developed from the distinctive perspective of Biblical theology. Major themes and methods of inquiry. Liberal Arts. Prerequisite: BIBL 101

## BIBL 356 New Testament Theology

3-S22
Examination of the teaching of the New Testament, developed from the distinctive perspective of Biblical theology. Major themes and methods of inquiry. Liberal Arts. Prerequisite: BIBL 101
BIBL 360 Science and Scripture
3-WSP
Examination of the historical 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 is made of both science and Scripture. Attention given to four possible ways of relating: conflict, contract, contact, and confirmation. Liberal Arts. Prerequisite: BIBL 101
BIBL 361 Job
3-WSP
Historical, doctrinal, and cultural study of the book with special attention to the problem of human suffering, the afterlife in the Old Testament, and the concept that success indicates divine favor. Liberal Arts. Prerequisite: BIBL 101
BIBL 371 Book of Acts
3-WSP
Study of the book of Acts from literary, historical, and theological perspectives. Attention to early church growth and contemporary relevance. Liberal Arts.
Prerequisite: BIBL 101

## BIBL 410 Isaiah

3-WSP
Study of the historical, critical, and contextual issues with an emphasis on a faith vital to our generation. Liberal Arts. Prerequisite: BIBL 101 BIBL 412 Jeremiah

## 3-WSP

Historical, cultural background, structure, and contents of Jeremiah are studied. Attention given to Jeremiah's influence on his contemporaries and the relevance of his message for our time. Liberal Arts. Prerequisite: BIBL 101
BIBL 451 Romans
3-WSP
Detailed exegetical examination of Romans emphasizing literary and theological analyses formed by the context of $1^{\text {st }}$-century culture. Explores history of interpretation issues, developments in contemporary Pauline studies related to the letter, and application to contemporary life. Liberal Arts. Prerequisites: BIBL 101; one other Bible course, 200-level or higher

## BIBL 453 I \& II Corinthians

3-WSP
Intensive study of the literary structure, historical setting, and theology of I \& II Corinthians. Liberal Arts. Prerequisites: BIBL 101; one other Bible course, 200-level or higher
BIBL 482 Senior Capstone: Senior Seminar in Bible
3-S
A discussion course focused on individual student projects addressing themes, issues, or problems that bring together biblical material, the Christian tradition, and contemporary concerns. Required of all Bible majors. Fulfills General Education Writing-Enriched course requirement. Liberal Arts. Prerequisite: BIBL 101

## BIBL 496 Honors in Bible

3-4-WSP
Liberal Arts. Prerequisite: BIBL 101
BIOCHM 480 Capstone Seminar in Biochemistry
1-S
Capstone course for the Biochemistry major allowing students and professors to think
together about biochemistry-its current topics, history, and issues of science and faith. Liberal Arts. Prerequisite: senior status or permission
BIOL 111 Introduction to Environmental Biology
4-WSP
Overview of plant and animal biology (including taxonomy), animal behavior, ecology, and principles of evolutionary theory. Course includes wet and dry lab components. Taught at participating high schools to selected, qualified students. Liberal Arts.
BIOL 112 Introduction to Cellular Biology and Genetics
4-WSP
Overview of basic biochemistry, cell biology and metabolism, and principles of genetics. Course includes wet and dry lab components. Taught at participating high schools to selected, qualified students. Liberal Arts.
BIOL 115 Elements of Nutrition

## 3-Online-WSP

Covers various topics related to humans' healthful consumption of food. Topics include the science of nutrition, design of a healthful diet, the general processes of digestion, composition and sources of macro- and micronutrients, the processes of energy metabolism and fluid/electrolyte balance, and a role of nutrition in various organ system function. Labs will be accessible in the online format. Students will be required to complete a health assessment, track their nutritional intake, and critique journal articles or online media articles regarding social and ethical nutrition questions including food insecurity among the elderly; nutritional wellness and child development; childhood obesity and malnutrition; food safety in the global market; allergies, intolerance, and food; dietary supplements; and health claims. Does not count for Biology major elective. Counts for General Education Science Requirement
except for Main Campus bachelor's degrees. Liberal Arts.
BIOL 151 General Biology: Organisms to Ecosystems
4-F\&S
One of two foundational courses required for preparation for advanced coursework in the major and minor. 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. Liberal Arts. This course has a fee.

BIOL 152 General Biology: Cellular Biology and Genetics
4-F\&S
One of two foundational courses required for preparation for advanced coursework in the major and minor. Includes an introduction to basic biochemistry, cell biology and metabolism, and principles of genetics. Three lecture, three laboratory hours each week. BIOL 151 and/or 152 are prerequisites for major-level courses above 200. Liberal Arts. This course has a fee.

## BIOL 195, 295, 395, 396 Special Topics

$1,2,3$, or $4-F \& S$
Designed to meet the individual needs of advanced students in a variety of areas. Some courses include laboratory. Liberal Arts.

## BIOL 201 Emergency Medical Service Basic

## Training

0,2-S
Designed to give students the emergency medical knowledge and skills necessary to care for sick and/or injured patients in a prehospital setting. Topics include recognition and treatment of respiratory, musculoskeletal, abdominal, and circulatory emergencies; trauma; HAZMAT emergencies; pharmacological emergencies; stroke; shock; environmental emergencies; obstetric and
gynecological emergencies; geriatric emergencies; psychological emergencies; and basic patient assessment. Students successfully completing this course are eligible to take the New York State certification exam for emergency medical technicians (EMTBasic). Requires 94 hours of instructional time and 88 hours of laboratory time. Students must also complete at least 10 hours of clinical observational experiences, achieve a score of 70\% or C on all examinations, and complete the New York State Practical Skills and Written Exams.
BIOL 202 Pre-Health Practicum
2-Summer
One-on-one observation and practical experience supervised by a practitioner in a healthcare field. Preparation and sharing of experiences on the Houghton campus required for all participants. Available only to pre-health candidates with junior status (or higher) and GPA > 3.0. Prerequisites: BIOL 151, 152. Requires successful application and placement approval by Pre-Health Director.

## BIOL 203 Pre-Veterinary Practicum

2-F/S/Summer
One-on-one observation and practical experience supervised by a veterinarian or animal field expert. Preparation and sharing of experiences on the Houghton campus required for all participants. Open only to preveterinary candidates with junior status (or higher) and GPA > 3.0. Prerequisite: BIOL 151, 152. Requires successful application and placement approval by Pre-Health Director.
BIOL 204 Practicum in Biology
2-F/S/Summer
One-on-one observation and practical experience supervised by an expert in the biology field of interest. Preparation and sharing of experiences on the Houghton campus required for all participants. Available only to Biology majors with junior status (or higher) and GPA > 3.0. Prerequisites: BIOL 151,
152. Requires successful application and placement approval by Biology department chair.
BIOL 206 Field Techniques in Ecology
4-May
Introduces students to a variety of field and research techniques used in ecology and conservation professions. Group exercises emphasize sampling methods for documenting patterns of distribution and abundance, experimental designs for testing hypotheses, and statistical interpretation of results. Scientific communication skills strengthened through discussion of peerreviewed scientific literature. Prerequisites: BIOL 151, 322. This course has a fee.
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, discussion, and field-oriented laboratory exercises at world-renowned national parks, in game reserves, and on campus. Houghton East Africa. Fulfills General Education Natural Sciences requirement. Liberal Arts.

## BIOL 209 Introduction to Nutrition

 3-WSPCovers various topics related to humans' healthful consumption of food. Topics include the science of nutrition, design of a healthful diet, the bodily processes of digestion, composition, sources of macro- and micronutrients, and the processes of energy metabolism and fluid and electrolyte balance. Nutritional needs throughout lifecycles are discussed from pregnancy, neonate, and childhood through adolescence and adulthood to geriatric stages. Does not fulfill Biology major elective. Does not fulfill General Education requirements for Houghton College main campus. May fulfill Science General Education requirement at extension sites with

Biology chair or General Education Director approval. Prerequisite Course: BIOL 152 (may be taken concurrently). Liberal Arts.

## BIOL 210 Medical Terminology

3-Summer
Opportunity to learn and recognize word roots, prefixes, and suffixes used in current medical professions. Emphasizes the meaningful combination of words (to describe and understand medical conditions). Reviews medical terms related to all major body systems.
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. Liberal Arts. This course has a fee.
BIOL 218 Human Anatomy and Physiology II 4-S
Sequel to BIOL 217. Endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems; acid-base; and fluidelectrolyte balance. Three lecture, three laboratory hours each week. Note: BIOL 217 and 218 are designed to fulfill admission requirements 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. Liberal Arts. This course has a fee. Prerequisite: BIOL 217 or permission
BIOL 232 Epidemiology
2-May21
Cause and transmission of human diseases within a population relating to not only the infectious agent but also the genetic makeup of the community and the social, behavioral,
economic, and cultural factors of the people affected. Lectures 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 are addressed with an emphasis on identifying patterns; formulating testable hypotheses regarding the disease outcome; and understanding the types of epidemiological studies, clinical and community trials, and essential biostatistics involved in any experimental design. Does not count for major or minor credit in Biology. Liberal Arts.

## 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 lecture, three laboratory hours each week. Liberal Arts. This course has a fee. Prerequisites: BIOL 152 and BIOL 152

## BIOL 250 Environmental Science

 4-WSPStudy of global system functions including the geosphere, atmosphere, hydrosphere, and biosphere. Special emphasis on the connections to human activity. Topics include climate change, pollution, environmental sustainability, and loss of biodiversity. Three lecture and three laboratory hours each week. Liberal Arts. This course has a fee. Prerequisites: BIOL 151 and 152

## 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. Liberal Arts. This course has a fee. Prerequisite: BIOL 152 or permission
BIOL 255 Conservation Biology

## 4-F

Conservation biology is a mission-driven, applied, interdisciplinary science seeking to conserve biological diversity at genetic, species, ecosystem, landscape, and global levels. Focus is on ecological, human, and evolutionary dimensions of conservation with emphases on causes and consequences of biodiversity loss. Sample topics include management of small populations, endangered species, captive breeding, and designing networks of protected areas. Emerging strategies and approaches at the national and international levels are examined. This course has a fee. Liberal Arts. Prerequisites: BIOL 151, 152
BIOL 300 Ecology of Alaska 4-May\&F
Study of terrestrial and marine Alaskan ecosystems through lectures and field experiences in Kenai Fjords National Park, Denali National Park, Wrangell-St. Elias National Park, Museum of the North (UAF) and other locations. Reading of primary literature, field journal, and a research paper required. (This course has a fee for Mayterm of ~\$2400 above tuition.) Part of Arctic Studies semester. Biology majors only. Liberal Arts.
BIOL 301 Field Botany
4-F
Introduction to taxonomy, systematics, and ecology of vascular plants. Includes field trips throughout Western New York and northwestern Pennsylvania, plant identification and classification, and developing an extensive herbarium. Two lecture, six laboratory hours each week. Liberal Arts. This course has a fee. Prerequisite: BIOL 151
BIOL 303 Biodiversity
4-S
Discusses the measurement and meaning of biodiversity with emphasis on global patterns (e.g., species-area and species-elevation
relationships, island biogeography, latitudinal gradient in species richness, local and regional richness). Students learn methods for the quantification and analysis of biodiversity as well as the theoretical underpinnings of the scientific study of biodiversity by identifying patterns of biodiversity at regional and global levels, processes generating and maintaining biodiversity, processes generating biodiversity across spatial and temporal scales, ecosystem services, and issues related to the conservation of biodiversity. Liberal Arts. This course has a fee. Prerequisite: BIOL 151

## BIOL 304 Herpetology

4-May
Study of the classes Amphibia and Reptiliato provides a broad overview of their phylogeny, ecology, and behavior. Focuses on identifying the families and genera common to North America (especially New York) but also examines the major groups of amphibians and reptiles around the world. This course has a fee. Liberal Arts. Prerequisite: BIOL 151

## BIOL 305 Ecophysiology of Plants

4-S
Focuses on the physiological ecology of plants and their interaction with the biotic and abiotic environment. Considers physiological and ecological aspects of adaptation to different environments and refers to examples from forests, agricultural systems, and the natural environment. Prerequisite: BIOL 251. This course has a fee.

## BIOL 308 Introduction to Pharmacology

 4-WSPBasic understanding of pharmacological principles including pharmacokinetic principles, drug dosing, pharmacology application in human systems (PNS, CNS, cardiovascular, renal, respiratory, endocrine and immune), and categories of drugs for each system or disease. Application of concepts is reinforced with online modules, case studies, and laboratory exercises. One review period
plus three lab hours each week. This course has a fee. Liberal Arts. Prerequisites: BIOL 152, BIOL 217, BIOL 218, CHEM 151; preferred: CHEM 152, BIOL 251
BIOL 313 Ornithology
4-May
Designed to investigate the basic principles of ornithology. Students are exposed to the history and current status of the science. The bulk of this course includes in-the-field identification skills with a combination of both audio and visual senses. Students also learn from local experts as they band birds and actively manage habitat to assist bird populations. This course has a fee. Liberal Arts. Prerequisite: BIOL 151
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. Liberal Arts. This course has a fee. Prerequisite: BIOL 151

## BIOL 322 General Ecology

4-S21
Study of the interrelationships among living organisms, their physical and biological environments, and human impacts. Laboratory introduction to ecological techniques and field studies of local and state ecosystems. Three lecture, three laboratory hours each week. Liberal Arts. This course has a fee. Prerequisite: BIOL 151

## BIOL 336 Animal Behavior

4-F
Introduction to the biological study of animal behavior. Lecture topics focus primarily on why animals behave as they do and, to a lesser
degree, how they get the job done. Topics include genes and behavior, learning, organization of behavior, communication, mating systems, parental investment, and cooperation. Three lecture, three laboratory hours each week. Liberal Arts. This course has a fee. Prerequisite: BIOL 151
BIOL 344 Muscle Biology in Health and Disease
4-S22
Comprehensive overview of muscle biology (emphasis on skeletal), disease, and the regenerative capacity of muscles. Uses an integrative approach to understanding the molecular, cellular, and physiological bases of normal and altered skeletal muscle function. Discussions of current primary literature and laboratory activities further develop understanding and significance of muscle diseases and their treatments. Three lecture, three lab/discussion hours each week. Liberal Arts. This course has a fee. Prerequisites: BIOL 152, 251

## BIOL 355 Introduction to Neurobiology

4-S22
Overview of neurobiology through the study of action potentials, synaptic transmission, sensory and motor transduction, anatomy and development, memory and learning, and aging and disease. Three lecture, three lab/discussion hours each week. This course has a fee. Liberal Arts. Prerequisite: BIOL 251

## BIOL 365 Immunology

4-S22
Theoretical and clinical approaches to study of innate and adaptive immune systems: antigen recognition, immune response, immune system and its pathologies. Three lecture, three lab hours each week. Liberal Arts. This course has a fee. Prerequisite: BIOL 152
BIOL 370 Molecular and Cell Biology 4-F
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, three lab hours per week. Labs focus on molecular techniques such as cloning, PCR, generation and purification of recombinant proteins, and blotting techniques (DNA, RNA and Protein). Liberal Arts. This course has a fee. Prerequisite: BIOL 251
BIOL 372 Advanced Vertebrate Physiology 4-S21
Comprehensive and in-depth overview of physiological function of major organ systems with a particular emphasis on vertebrates and their adaptations in response to the stress of exercise. Topics discussed within the context of their clinical applications and the underlying biological fundamentals that drive them, such as biochemistry, cell physiology, and cell signaling. Three lecture, three lab/discussion hours each week. Liberal Arts. This course has a fee. Pre/corequisite: BIOL 251 or permission
BIOL 380 Pathogenic Microbes
4-S21
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 lecture, two discussion/seminar hours. Liberal Arts. This course has a fee. Prerequisites: BIOL 152, 242
BIOL 382 Developmental Biology 4-WSP
Study of morphogenesis and biochemical processes involved in development with emphasis on vertebrates. Three lecture, three laboratory hours each week. Liberal Arts. This course has a fee. Prerequisite: BIOL 251
BIOL 384 Cancer Cell Biology

## 4-S22

Students explore the following topics related to cancer: its etiology, different types, available therapies, and current ongoing research. Students learn the molecular basis of how this disease develops and how changes to gene expression affect its progression. In the laboratory portion of the course, students are taught appropriate techniques related to cancer research and pharmaceutical industries. In addition, we explore the morphology of different types of cancer cells. Three lecture, three lab hours each week. Liberal Arts. This course has a fee. Prerequisite: BIOL 251
BIOL 391, 392, 491, 492 Independent Study
1, 2, 3, or 4-WSP
Research under the supervision of a Biology department faculty member. Maximum total 5 credits. Liberal Arts.
BIOL 393 Summer Collaborative Research in Biology
1, 2, 3, or 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 four weeks during the summer. Permission of instructor required. This course has a lab fee. Liberal Arts. Prerequisites: BIOL 151, 152

## BIOL 394 Research in Biology

4-F\&S
Research in collaboration with a faculty member focusing on current research in areas of immunology, molecular genetics, animal behavior, and forest/water ecosystem analysis. Students work in small teams to review literature, design projects, perform experiments, collect and analyze data, and write up their work in manuscript form. Liberal

Arts. Prerequisites: BIOL 151, 152 or instructor permission
BIOL 482 Senior Capstone: Senior Seminar 2-F
Discussions of history of biological science, ethical problems in biology and health-related issues, origins and biotechnology, and society as well as environmental issues. Open only to majors. Fulfills General Education WritingEnriched course requirement. Liberal Arts.
BIOL 496 Honors in Biology
4-F\&S
Liberal Arts.
BU 417 Business Ethics
3-WSP (Houghton Online)
Ethics-related aspects of the business decision-making process. Students 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. Emphases are issue recognition, application of ethical principles, and analysis of the consistency of corporate decision-making process with such principles.
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-WSPInterrelationships among science, modern society, and Christianity. Nature and limitations of science. Political and social decisions with a scientific component. Indepth analysis of several areas in which science plays a critical role in contemporary life. Liberal Arts. This course has a fee.

## CHEM 151 General Chemistry I

4-F
Theories and principles of modern chemistry: stoichiometry, atomic theory and structure, bonding, properties of matter, and descriptive chemistry of some important elements. Laboratory devoted to synthesis, analysis, and experiments based on principles developed in lecture. Three lecture, three laboratory hours per week. Liberal Arts. This course has a fee.

## 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. This course has a fee. Prerequisite: CHEM 151

## CHEM 187 Introduction to Nutrition

3-WSP
Digestion, metabolism, and nutrition of normal individuals. Essentials of adequate diets and food sources of nutrients and nutritional comparison of food in relation to normal and modified diets. Does not count for major or minor credit. Liberal Arts.

## CHEM 188 Introduction to Nutrition

## Laboratory

1-WSP
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. This course has a fee. Liberal Arts.

## CHEM 221 Contemporary Organic Chemistry

 4-WSPFor Pre-Nursing, Pre-Medical Technology, and Biology BA majors. Fundamentals of organic chemistry with emphasis on structure, reactions, and properties of organic molecules. Three lecture, three laboratory
hours per week. Liberal Arts. This course has a fee. Prerequisite: CHEM 151 or 113

## CHEM 241 Organic Chemistry I

4-F
Modern organic chemistry: relationships between organic molecular structure and chemical reactivity, mechanisms of molecular transformations, and synthesis and spectroscopy. Three lecture, four laboratory hours per week. Liberal Arts. This course has a fee. Prerequisite: CHEM 152

## CHEM 242 Organic Chemistry II

4-S
Modern organic chemistry: relationships between organic molecular structure and chemical reactivity, mechanisms of molecular transformations, and synthesis and spectroscopy. Three lecture, four laboratory hours per week. Liberal Arts. This course has a fee. Prerequisite: CHEM 241

## CHEM 277 Analytical Chemistry

4-F21
Principles of gravimetric, volumetric, and electroanalytical methods of analysis. Acid base, precipitation, complexometric, and 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. Liberal Arts. This course has a fee. Prerequisite: CHEM 152
CHEM 278 Chemical Instrumentation in Research
4-S
Instrumental methods of analysis. Principles and application of various types of spectroscopy (including UV-VIS, IR and NMR), atomic absorption and emission, mass spectrometry, thermal and electrochemical methods of analysis, etc. Three lecture, four laboratory hours per week. Liberal Arts. This course has a fee. Prerequisite: CHEM 277

## CHEM 286 Special Topics in Chemistry

 2-SIntroduction to areas of chemistry not treated in other courses. Topics have included medicinal, forensic, nutritional, environmental, and clinical chemistries. Consult the department for the topic offered in any given year. Liberal Arts. Prerequisite: CHEM 241
CHEM 291, 292, 391, 392, 491, 492 Research in Chemistry
1, 2, 3, or 4-WSP
Liberal Arts.

## CHEM 332 Biochemistry I

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, and clinical applications. Liberal Arts. Prerequisite: CHEM 221 or 241; CHEM 242 strongly recommended as a corequisite

## CHEM 333 Biochemistry II

3-WSP
Advanced topics in protein structure and integration with DNA as well as metabolism. Students gain an appreciation of DNA engineering: molecular basis for protein function, regulation of protein activities, and proteomics. Includes selected topics in physical biochemistry such as thermodynamics, kinetics, molecular spectroscopy, solutions and equilibria, ligand interactions, and molecular modeling. Liberal Arts. Prerequisites: CHEM 332, CHEM 242

## CHEM 334 Biochemistry Laboratory I

 1-SIntroduction to biochemical laboratory techniques for the identification, isolation, and purification of proteins and enzymes. Students gain exposure to centrifugation, electrophoresis, ELISA, and chromatographic techniques (size exclusion, affinity, and ionexchange). Methods commonly utilized for the measurement of enzymatic activities, both
spectroscopic and chemical, are developed. Liberal Arts. This course has a fee.

## CHEM 335 Biochemistry Laboratory II

 1-WSPAdvanced laboratory techniques in protein and enzyme isolation and purification, spectroscopic measurement of enzyme kinetics, ligand binding, and modification of enzyme activity via genetic manipulation are utilized. Selected techniques in physical biochemistry and modeling are introduced. Fulfills General Education Writing-Enriched course requirement. Liberal Arts. This course has a fee. Prerequisite: CHEM 334

## CHEM 343 Advanced Organic Chemistry 3-F20

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. Liberal Arts. Prerequisite: CHEM 242
CHEM 352 Physical Principles of Chemistry 3-F
For students with major interests in medicine, biology, or secondary education. A onesemester, less mathematically oriented introduction to physical chemistry offering a core of concepts related to life processes. Three lecture hours per week. Liberal Arts. Prerequisite: CHEM 242
CHEM 361 Physical Chemistry I 4-F22
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. Fulfills General Education Writing-Enriched course requirement. Liberal Arts. This course has a fee. Prerequisites: CHEM 152, PHYS 151, PHYS 152; corequisite: MATH 241 or 225

## CHEM 362 Physical Chemistry II

4-S23
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. Liberal Arts. This course has a fee. Prerequisites: CHEM 152, PHYS 151, PHYS 152; corequisite: MATH 241 or 225
CHEM 393 Summer Collaborative Research in Chemistry
$1,2,3$, or 4 -Summer
Summer program of 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. Liberal Arts. Prerequisite: CHEM 152

## CHEM 453 Advanced Inorganic Chemistry

3-F21
Theories of atomic and molecular structure and bonding with emphasis on organometallic chemistry, descriptive chemistry of the elements, and current topics of special importance. Liberal Arts. Prerequisite: CHEM 152

CHEM 482 Senior Capstone: Chemistry

## Seminar

1-S
Journal reports and discussion of recent developments in chemistry and issues of science and faith. Liberal Arts. Prerequisite: senior status or permission
CHEM 496 Honors in Chemistry 4-WSP
A special individual research project completed in a Chemistry major's senior year resulting in a publishable undergraduate thesis. Liberal Arts.
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, and time management. For all students who wish to work to their full potential.
CLLS 103 College Study Methods Lab 0,1-F/S
Designed to function in collaboration with CLLS 102 College Study Methods, this lab offers students the practical application of structured study habits as well as critical one-on-one support and guidance and fosters development of essential study habits as students navigate the academic landscape of college. May be repeated for 0 credits with the approval of the Center for Student Success.
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 are introduced to key topics related to Residence Life and Housing and receive training specific to the Resident Assistant position at Houghton College. COLP 401-402 Collaborative Performance $1,2,3$, or $4-F \& S$
Preparation and presentation of joint performances in a variety of keyboard, instrumental, and vocal combinations.
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 informational, persuasive, and ceremonial occasion speeches. Liberal Arts.
COMM 105 Introduction to Human Communication
3-F
Introduction to the fundamental components of the human communication process. Focuses on enhancing communication competence by developing knowledge and skills critical to effective communication, equipping students to achieve their objectives in a variety of communication situations. Emphasis on oral proficiency in dyadic, group, and public communication settings. Offered at the Symphony Circle location. Liberal Arts.
COMM 111 Oral Interpretation and Drama 3-F
Designed to help students understand drama, create captive audiences, and communicate a message effectively through oral interpretation and dramatic performance. Students gain skill in comprehending literary texts, communicating with an audience, sharing faith through storytelling, and writing creatively. Taught at participating high schools to selected qualified students. Liberal Arts.
COMM 115 Foundations of Digital

## Communication

2-F\&S
Survey of the essential digital toolsets involved in the production of static and time-based visual media. Through lecture, demo, and studio projects, students are introduced to the foundational technical and design concepts necessary for creating effective visual messages in a digital studio environment.
COMM 205 Introduction to Communication Theory
3-F\&S
Provides a foundation for subsequent communication courses by introducing the major theories that help explain human
communication behavior. Encourages students to see theorizing as both a formal, systematic approach to learning and an informal activity in which we all engage. Through practical application, emphasizes the understanding, evaluation, and use of communication theories in daily life. Fulfills half of General Education Social Sciences. Liberal Arts.
COMM 207 Introduction to Pro Tools
3-F
Introduction to Pro Tools sound and recording software. Foundational skills necessary to record, edit, and mix at a 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 take the Pro Tools 101 DigiDesign Certification exam. This course has a lab fee. By permission of instructor.

## COMM 208 Pro Tools Production I

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 through real-world examples and frequent hands-on assignments that will enhance your capabilities in all aspects of Pro Tools production. Successful completion prepares students to take the Pro Tools 110 DigiDesign Certification exam. This course has a lab fee. Prerequisite: COMM 207
COMM 214 Introduction to Mass Media 3-F
Overview of the mass communication process and its application to mass media. Considers history, technological development, social implications, business functions, and legal
aspects of mass media. Fulfills half of General Education Social Sciences. Liberal Arts.
COMM 215 Interpersonal Communication
3-S (also offered Online)
Principles and 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. Liberal Arts.
COMM 216 Organizational Communication 3-F\&S
Development of communication skills applicable within organizations: understanding communication channels, interviewing strategies, task-oriented groups, business and sales presentations, conducting effective meetings, and conflict management. Liberal Arts.

## COMM 218 Marketing Principles

3-F\&S
3-F Module 1 (Houghton Online)
Comprehensive examination of proactive and reactive business strategies and tactics that create and fulfill demand for consumer products and services and result in high customer satisfaction and ongoing, long-range business-consumer relationships.
COMM 224 Motion Media Design and

## Animation

4-F
Introduction to the foundational animation principles, digital toolsets, and techniques necessary for creating time-based multimedia work. Through lecture, demo, and studio projects, students develop an understanding of how motion can be used to communicate messages visually to an audience. This course has a lab fee. Liberal Arts.
COMM 225 Intercultural Communications
3-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. Fulfills part of the General Education Changing World requirement. Liberal Arts.

## COMM 228 Digital Video I

4-F
Introduction to the movie-making process using digital tools. Students 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. Fulfills General Education Art \& Music requirement. This course has a lab fee.
COMM 232 Introduction to Web Communication
4-F
Introduction to the design, hosting, and maintenance of webpages. Foundational concepts of composition and design, use of color, multimedia, accessibility, and good user interface design 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 240 Introduction to 3D Computer Graphics
4-S22
Introduction to working in an industrystandard 3D package to build 3D assets for various forms of digital media. Through lecture, demo, and studio projects, students survey foundational concepts in the major aspects of the 3D pipeline, including modeling, materials, rigging, animation, lighting, and rendering. This course has a lab fee.

## COMM 243 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. Fulfills General Education Art \& Music requirement. This course has a lab fee.

## COMM 244 Oral Performance of Literature

## 4-WSP

Emphasis on 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. Liberal Arts.
COMM 283 Introduction to Digital

## Photography

3-Online-WSP
4-F\&S
Introduction to the fundamentals of digital photography, including camera operation and file management. Students explore photography as a visual language through personal expression, principles of composition, and the medium's contemporary history. Format includes discussions, demonstrations, critiques, lectures, and student presentations. Fulfills General Education Art \& Music requirement. The oncampus course has a lab fee.

## COMM 284 Introduction to Digital Imaging

 4-SIntroduction to the tools and concepts of creating and manipulating images with digital technology. The primary software application is Adobe Photoshop. Instruction is projectbased and relies on class critique. Students also learn to recognize digital equivalents of traditional art styles, techniques, and forms. Fulfills General Education Art \& Music requirement. This course has a lab fee.

COMM 289, 389, 489 Communication Internship
$0,1,2,3$, or 4-F\&S, Summer
Experience in an applied communication field. Course tailored to individual students' needs and interests.

COMM 291, 292, 391, 392, 491, 492 Independent Study
1, 2, 3, or 4-WSP
Liberal Arts.
COMM 295, 395 Special Topics in Communication: Lecture- or Studio-Based 2-4-WSP
Opportunity for study of issues and problems not covered elsewhere in the curriculum. Liberal Arts.
COMM 304 Social Media Marketing
3-F21
Develops understanding of consumers' social interactions, examines the various social media channels available to marketers, and teaches how to build social marketing strategies and track their effectiveness.

## COMM 312 Advertising Principles

3-F
3-S Module II (Houghton Online)
An historic and present-day overview of the American advertising business and its effectiveness in creating consumer demand for products and services using print, broadcast, and Internet-based media. Examines and critiques creative executions targeted at key audience segments. Typically includes a group advertising project.
COMM 314 New Media and Society 3-S22
Explores how computing and digital communication tools, along with the Internet, are transforming culture and society. Includes a history of the Internet and personal computing and examines critical writing from a range of perspectives on the potentially positive and negative aspects of technologyinfluenced trends. Liberal Arts.

## COMM 315 Public Relations Principles

 3-S3-F Module II (Houghton Online)
A study of the development, implementation and management of professional public relations programs designed to create, enhance, or protect the reputations of businesses or organizations. Explores the roots of Public Relations and proceeds to analyze communication strategies and relationship-building efforts with publics critical to the organization's success in the marketplace. Prerequisite: BADM/COMM 218
COMM 316 Advanced Presentational Speaking

2-F20
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. Liberal Arts. Prerequisite: COMM 101 or instructor permission

## COMM 319 American Public Address

3-S21
Public discourse of political speeches and popular culture from the colonial era to the present. Careful analysis of speech texts and the historical contexts in which they were delivered helps students become more careful consumers of public messages, build critical skills, improve understanding of key issues in American history and how those issues were debated, and increase appreciation for the importance of rhetoric in a democratic society. Liberal Arts.
COMM 320 Environmental Communication 3-WSP
Examines the unique challenges and realities of communicating about environmental issues with an emphasis on contemporary American culture. Addresses environmental communication by exploring such topics as advocacy, social change, partisan politics,
sociocultural identity expression, and "green" marketing. Also critiques various case studies relevant to public communication about environmental issues. Liberal Arts.
COMM 323 Motion Media Design and Animation 2

4-S21
Building on core animation principles, students expand their repertoire of tools and techniques for creating original time-based multimedia work. Students consider video as an element of motion design that can be integrated with graphics for effect. Class includes lecture, demo, studio projects, and a group production. This course has a lab fee. Prerequisite: COMM 224
COMM 328 Digital Video II
4-F21
Continuation of Digital Video I intended to expand upon the skills and techniques introduced in that course, adding more advanced editing techniques to the student's skillset. Introduces techniques such as multicamera production, compositing, green screen, and videoblogging. Students are encouraged to prepare film festival submissions. Presents an outline of cinematic communication history. This course has a lab fee.
COMM 330 Conflict Management
3-WSP
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.

COMM 335 Integrated Marketing Communication
3-WSP

A culminating study of how marketing communication disciplines coalesce to form powerful, ongoing communication campaigns that demonstrate, elevate, and sustain the mission, products, and services of profitmaking or not-for-profit organizations (including government). Uses case studies of various IMC initiatives to analyze their approaches, outcomes, and overall effectiveness. Prerequisites: BADM/COMM 218, BADM/COMM 312, BADM/COMM 315, BADM 319

## COMM 345 Graphic Design II

4-S
Further development of conceptualization and visualization skill within graphic design media, including computer design. Assignments directed towards professional practice. Fulfills General Education Art \& Music requirement. This course has a lab fee.
COMM 380 Lighting for the Still and Moving Image
4-F
Studio class examining the technical and practical aspects of lighting for photography and video. Students learn to assess the qualities of light and how to effectively use strobe, continuous, and natural lighting on location and in the studio. Fulfills General Education Art \& Music requirement. This course has a lab fee.
COMM 382 Advanced Topics in Photography 4-S21
Continued exploration of photographic techniques and concepts emphasizing digital workflow, including digital camera operation, digital output, and strobe lighting. Intensive, conceptually driven studio assignments reinforced through readings, discussions, critiques, and lectures. Fulfills General Education Art \& Music requirement. This course has a lab fee. Prerequisite: ART 283
COMM 384 Digital Imaging II
4-F20

Advanced techniques in compositing, painting, graphics, and content expression using twodimensional digital computer software such as Adobe Photoshop. Creative studio lab work focuses 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. This course has a lab fee. Prerequisite: COMM 284

COMM 410 Media Arts: Advanced Projects 4-S
Single-project course tailored to individual interests, vision, and production decisions. Adapted for individual mentoring and one-onone faculty-student interaction. Projectbased instruction explores the advanced needs of a student while honing digital production and editing skills. Features 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
2-F\&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 479 Professional Practices in Photography
4-S22
3-Online-WSP
Advanced projects course allowing students to refine and focus their work within one of
several genres of photography. Examines professional practices, including establishing a photography business, marketing techniques, creating estimates and invoices, and copyright issues. Students develop a cohesive portfolio through group discussions and critiques. Fulfills General Education Art \& Music requirement. This course has a lab fee.
COMM 496 Honors in Communication
4-S
Liberal Arts.
COMP 101, 102, 201, 202, 301, 302, 401, 402 Composition
1, 2, 3, or 4-F\&S
Original composition in various forms, genres, and styles.

## CONC 101, 102 Conducting, Choral

$1,2,3$, or $4-F \& S$
CONC 401, 402 Advanced Conducting, Choral 1, 2, 3, or 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, 2, 3, or 4-F\&S
Preparation of material for a major instrumental ensemble and actual experience directing the ensemble. Prerequisites: MUS 229, 430, participation in ensemble, permission of ensemble director
CRFM 191, 192, 291, 292, 391, 392, 491, 492 Independent Study
1, 2, 3, or 4-WSP
CRFM 227 Sports Ministry: The Integration of Faith and Sport

## 3-WSP

Students develop an understanding of the sports culture and learn how the gospel can be effectively communicated within this context. They consider sociological factors, historic developments, and the biblical text to build a
theological foundation for the practice of sports ministry. Church and parachurch organizations are examined as well as evangelism and discipleship methodologies. Students practice communication skills within sports ministry settings.

CRFM 231 Foundations of Educational Ministry
3-S22
Historical, philosophical, and theological developments of religious and Christian education in relation to the practice of ministry.

## CRFM 275 Methods \& Administration of Sports Ministry <br> 3-S21

Students evaluate sports ministry strategies within local church, parachurch, missions, and educational settings. They review and develop curricula and programs for use within these settings. Students develop communication skills for a sports audience and examine evangelism and discipleship methods.

## CRFM 325 Bible Study and Teaching Methods

 3-F20Survey of methods of Bible study and approaches to teaching/learning. Emphasizes lesson design, planning and presentation, small group leadership, and curricula.

## CRFM 332 Christian Formation of Youth

 3-F21Examination of the theory and practice behind guiding the spiritual lives of adolescents with particular emphasis on the evangelistic and nurturing (discipling) tasks. Covers time-tested and innovative practices of adolescent spirituality. Gives an overview of adolescent culture, aimed at enabling spiritual directors of youth to understand some of the unique elements of enabling the faith journeys of young people.
CRFM 340 Theological Explorations in Youth Cultures and Ministry
3-F20

A theological investigation into the religious and spiritual lives of American youth with special reference to the contexts of family, peer relationships, school, church, and popular culture. Asks questions such as, "What does the religious and spiritual landscape of American young people in the early $21^{\text {st }}$ 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? How can this religious and spiritual interest and impetus be theologically engaged from a Christian perspective with a view to effective youth ministry?" 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 modifications) with a view to effective youth ministry.

## CRFM 350 Foundations of Youth Ministry

 3-S22Eclectic, 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.

## CRJ 201 Introduction to Criminal Justice

 3-FSurvey of causes and consequences of crime and the social responses in the legal system: policing, the courts, the varieties of sentencing options and outcomes, and routes to restoration. Liberal Arts.
CRJ 301 Police Operations and Procedures 3-WSP

Surveys the historical development of law enforcement. Examines levels and methods of policing. Analyzes roles, functions, selection, training, and accountability of police officers.

## CRJ 305 Courts, Judgements, and Alternative Consequences

3-WSP
Surveys structure and function of the court system, including roles of officers of the court. Includes special treatment courts: juvenile courts, Family Court. Stages of court processing from pretrial to sentencing with attention to procedural law, constitutional rights, and alternative consequences.

CRJ 310 Correction, Probation, and Restorative Justice
3-WSP
Historical survey of institutional correction: methods, goals, prison design, and operation. Considers life inside the walls and after release. Probation, parole, and restorative justice in community settings.

## CRJ 410 Internship in Criminal Justice

 0-6A supervised experience in a criminal justice setting integrating theory with professional practice. By application only through the department.

## CRJ 480 Senior Capstone Seminar

3-WSP
Informed discussion of significant contemporary concepts and issues. Includes development of an individual or group research project on some aspect of the field. Professional preparation, including processes for civil service exams. Required of all senior majors. Prerequisites: PSY/BADM 309, PSY 310/SOC 312.
CSCI 115 Perspectives on Computing 4-WSP
Overview of how computers process, transmit, and store information. Designed for nonmajors and includes many applications and issues found in contemporary culturefor example, privacy issues related to databases maintained by insurance companies or protection of intellectual property in light of increasingly popular filesharing applications. Does not count
toward a major or minor in Computer Science. Liberal Arts.
CSCI 170 Fundamentals of Web Coding 3-WSP
Introduces students to the fundamentals of web coding, which include HTML, CSS, and JavaScript. Important programming concepts are also covered: variables, control structures, functions, and syntax. Object-oriented programming also introduced. Taught at participating high schools to selected, qualified students.

## CSCI 180 Networking Foundations

3-WSP
Introduces fundamental security concepts for cybersecurity, including threat actors, procedures, organizational security, risk management, and incident response. Foundations of networking are also covered, including protocols and network support. Taught at participating high schools to selected, qualified students.

## CSCI 211 Programming I

4-F
Covers the fundamentals of object-oriented and functional programming utilizing the Scala programming language. Provides students with basic programming concepts in Scala, including basic data structures, operators, control structures, methods, objects, classes, inheritance, polymorphism, functions, higherorder functions, types, and pattern-matching.

## CSCI 214 Discrete Mathematics

2-F21
Introduction to discrete mathematical topics: equivalence relations, partial orders, functions, recurrence relations, counting, introduction to probability, graphs, and introduction to algorithm analysis. Liberal Arts. Prerequisite: MATH 210
CSCI 218 Programming II
4-S
Extends concepts learned in Programming I.
Covers some advanced features of Scala
including file processing, exceptions, threads, type parameters, advanced types, graphic user interface, and implicits. Prerequisite: CSCI 211

## CSCI 226 Computer Architecture

4-F21
Structure and internal organization of digital computers. Machine language and assembly language, representation of numbers, CPU organization, subroutines, and linkage. Liberal Arts. Prerequisite: CSCI 211 or equivalent proficiency
CSCI 236 Data Structures and Algorithms
4-F21
Covers the fundamental data structures of computer science and accompanying algorithms. Linked Lists, Stacks, Queues, Binary Trees, Priority Queues, Heaps, and other abstract data types included. Classical sorting and searching algorithms learned and implemented. Prerequisite: CSCI 218

CSCI 245 Software Engineering 4-WSP
Covers both theoretical and practical foundations in software engineering. Theoretically, covers principles and methods of software engineering, including requirements, specification, design, implementation, testing, validation, operation, and maintenance. Practically, covers the development of software products from an industry perspective, including generation of appropriate documents. Prerequisite: CSCI 218
CSCI 295, 395, 495 Special Topics in Computer Science
1, 2, 3, or 4-WSP
Previous topics include bioinformatics, computer security, neural networks, machine learning, C\#, and the .NET framework. Liberal Arts.
CSCI 312 Computational Statistics
4-F20

Introduces computational methods to solve statistical problems. Topics include classical tests, statistical modeling, regression, analysis of variance and covariance, analysis of count data and proportion data, time series analysis, survival analysis, and Monte Carlo methods. Liberal Arts. Prerequisite: CSCI 236
CSCI 315 Big Data and Cloud Computing 4-S22

Introduces analyzing big data with Apache Spark. First presents the characteristics of big data and the challenges of processing it, then covers the major components of Spark: streaming to process real-time data streams, SQL, and Data Frames to support for structured data and relational queries, Mllib: built-in machine learning library, and GraphX for graph processing. Prerequisite: $\operatorname{CSCl} 236$ 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. Prerequisites: CSCI 226 and 236 or permission

## CSCI 328 Foundations of Computing

 4-WSPIntroduces the classical and contemporary theory of computation including regular, context-free, and computable (recursive) languages with finite-state machines, pushdown automata, and Turing machines. Also covers the historical reasons for 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 differences among procedural, functional, and object-oriented logic as well as parallel programming languages are also covered. Liberal Arts.

CSCI 340 Databases
4-S21
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- and objectbased databases. Exposure to database manager responsibilities. Prerequisite: CSCl 218 or permission

CSCI 345 Machine Learning
4-F20
Broad introduction to machine learning, which teaches computer programs to extract knowledge from data. Topics include supervised (generative/discriminative learning, classification, regression, neural networks, and support vector machines), probabilistic, unsupervised, evolutionary, and reinforcement learning. Liberal Arts. Prerequisite: CSCI 236

## CSCI 380 Collaborative Research in Computer Science

4-F21
Students contribute to a computer science research project as part of a team of students. Each student takes primary responsibility for at least one component of the project, producing cutting-edge research in an area of importance today. May be repeated for credit up to four times. Liberal Arts. Prerequisite: Instructor permission
CSCI 391, 392, 491, 492 Independent Study
1, 2, 3, or 4-WSP
Liberal Arts.
CSCI 393 Summer Collaborative Research in Computer Science
1, 2, 3, or 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. Focuses on interdisciplinary research covering mathematics, statistics, computer science, and computational biology. May be repeated for credit. Prerequisite: Instructor permission
CSCI 420 Networking
4-S22
Introduction to the basics of data communication and networking. Topics include the physical processes used for digital transmission, standardization, local area networks, network protocols, and distributed computation. Exposure to network manager responsibilities and computer security. The course has a fee. Prerequisite: CSCl 218 or instructor permission
CSCI 480 Senior Capstone: Computer Science

## Seminar

4-S
For seniors, except by permission. Required of all Computer Science majors. Liberal Arts.
CSCl 496 Honors in Computer Science 4-WSP
Liberal Arts.

## DSCI 151 Data Science for Beginners

## 3-F

Introduction to the discipline of data science including necessary skills, concepts, and data science processes used in practice. Moral and ethical issues in data science from a Christian perspective. Fulfills General Education Mathematics requirement. Liberal arts.

## DSCI 152 Data Science Fundamentals

 3-SIntroduction to the fundamentals of data science including data science methodology, understanding data sources, data collection, exploration, and visualization. Introduction to programming tools along with an overview of machine learning. Learning about the integration of faith as part of the data science process. Fulfills General Education Mathematics requirement. Liberal arts.

## DSCI 190 Statistics for Data Science

3-WSP
In addition to the most basic aspects of statistics in general, introduces data types, data structures, and data wrangling utilizing the $R$ programming language. Taught at participating high schools to selected, qualified students.

## DSCI 211 Data Science I

4-F
Introduces the data science process, focusing on data collection and storage, data processing, data mining, learning, and analysis: pattern learning, supervised learning, unsupervised learning, and semi-supervised learning along with legal and ethical issues in the full lifecycle of data science. Data Science I and II together intend to teach the full spectrum of data science. Fulfills General Education Mathematics requirement. Liberal Arts.

## DSCI 212 Data Science II

4-S
Continuing focus on data mining, learning, and analysis: evolutionary learning, statistical learning, data streaming learning, data visualization and communication, and legal and ethical issues in the full lifecycle of data science. Data Science I and II together intend to teach the full spectrum of data science. Liberal Arts. Prerequisite: DSCI 211
DSCI 289, 389, 489 Internship in Data Science 0-6-WSP
A supervised experience in a data science setting combining practical activities with integrating studies. Liberal Arts.

## DSCI 380 Collaborative Research in Data Science

0-4-F20
Students contribute to a data science project as part of a team of students and at least one faculty member. Each student takes primary responsibility for at least one component of the data science pipeline. May be repeated for
credit up to four times. Liberal Arts. Prerequisite: Instructor permission
DSCI 480 Senior Capstone Seminar in Data Science
4-S
Analysis, assessment, and application of data science knowledge and skills. Liberal Arts.
ECON 191, 192, 291, 292, 391, 392, 491, 492 Independent Study
1, 2, 3, or 4-WSP
Liberal Arts.

## ECON 201 Introduction to Economics

3-F21 (Houghton Online)
Reviews the following topics: economic method; demand and supply; consumer and producer theory; effects of market structure; and selected topics on factor markets, resource limits, public choice analysis, the role of government, and perspectives on government and markets. Includes an overview of certain general topics such as integration of Christian faith and economic ideas, the meaning of scarcity, the role of economic institutions, the economy as a system, economic endowments, and wealth and poverty. Liberal Arts.

## ECON 210 Principles of Microeconomics

3-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 and ethics, economic systems and perspectives, and public economics. Fulfills half of General Education Social Sciences requirement. Liberal Arts.
ECON 211 Principles of Macroeconomics 3-S
Circular flow of income and expenditure in a market economy with government, financial, and foreign sectors. Economic method, demand and supply, national income accounting, inflation, unemployment,
business cycles, theories of aggregate price and output determination, fiscal and monetary policy, and the government budget. Fulfills half of General Education Social Sciences requirement. Liberal Arts.

## ECON 212 International Economics

 3International 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. Liberal Arts. Prerequisite: ECON 210 and 211 or permission
ECON 213 American Economic History 2
History of U.S. economy up to the present with emphases 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, costs and benefits of the Civil War, recovery, urbanization, immigration, industrialization, WWI, the '20s boom, the Great Depression, and WWII. Covers economic progress and crises in finance, trade, industry, agriculture, labor markets, land use, law, and government. Liberal Arts.
ECON 237 Comparative Economic Systems 2
Examination of alternative economic systems, comparing the U.S. economic system with other economies along the capitalist-socialist spectrum and describing the institutional bases for such comparisons. Liberal Arts. Prerequisites: ECON 210 and 211 or permission
ECON 295, 395, 495 Special Topics
0-4-WSP
Group study of selected topics. 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 and its influence on banking system, money supply, and economy. Liberal Arts. Prerequisites: ECON 210, 211

## ECON 310 Intermediate Microeconomics

1,2-WSP
Short introduction to primary models of consumer and producer behavior, especially indifference analysis of budget optimization and isocost-isoquant analysis of production. Liberal Arts. Prerequisite: ECON 210

## ECON 311 Intermediate Macroeconomics

## 1,2-WSP

Short introduction to primary models of macroeconomics, especially the IS-LM model, the consumption function, and the investment function. Liberal Arts. Prerequisite: ECON 211
ECON 315 Economics of Organization and Strategy
2
Theories of the firm with applications to management and business ethics: the firm in competition and in the macro and international environments with emphasis on adapting to changing environments. Economics of business strategy explores industrial organization and competition with emphasis on sources of profitability, applications of game theory, and adapting organization to setting. Economics of organization compares forms, purposes and effectiveness, optimal allocation of decisionmaking, and effective application of incentives. Liberal Arts. Prerequisite: ECON 210 or 211
ECON 322 Economic Research Seminar

Research and writing course for students who wish to pursue further work in economics. Students must have had at least 2 hours of a previous economics course to take 1 hour of this seminar, at least 4 hours of previous coursework to take 2 hours of this seminar and at least 6 previous hours to take 3 hours of this seminar. Topics for study must be approved by the instructor. Liberal Arts. Prerequisite: ECON 210 or 211
ECON 350 Economic Freedom 2-WSP

A study of the factors related 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 to effectively address poverty around the world. Liberal Arts. Prerequisite: ECON 210 or 211 or permission

ECON 401 Monetary Theory and Policy 1

Development of the U.S. monetary system and Federal Reserve System, money-creation process, financial regulation and deregulation, financial innovation, monetary effects on the macro economy, Federal Reserve policy (especially FOMC), and exchange rates. Liberal Arts. Prerequisites: ECON 210, 211
EDUC 114 Mathematical Concepts and Reasoning
4-F
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 to develop conceptual understanding from early childhood through middle school. Attention to development of mathematical concepts and reasoning particularly through exploration and cooperative learning. Liberal Arts.
EDUC 191, 192, 291, 292, 391, 392, 491, 492 Independent Study

2 or 4-WSP
EDUC 202 Topics in Professionalism 0-F\&S

Pass/fail course 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; and the Dignity for All Students Act). Provides information about certification, State testing requirements, and student teaching. Required before practicum experiences. This course is a prerequisite for 300-level courses in EDUC.

## EDUC 203 Workshop: Child Abuse + ID

 0All 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.

## EDUC 204 Workshop: School Violence

## 0

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.
EDUC 205 Workshop: Harassment, Bullying, and Discrimination Prevention \& Intervention \& the Dignity for All Student Act (DASA)
0
All HCTEP majors and applicants for certification must complete six hours of coursework or training in topics pertaining to harassment, bullying, and discrimination prevention and intervention and the Dignity for All Students Act, as required by Section

14(5) of Chapter 102 of the New York State Education law.
EDUC 217 Education and American Culture 3-F\&S
A survey of the philosophical and historical antecedents of American education and their relationships to current educational debates. Considers the influence of culture, heritage, and language on experience and education. Students analyze the role of education, consider the responsibilities of teachers, and develop an initial statement of their personal philosophy of education. Liberal Arts.

## EDUC 219 Educational Psychology

 3-F\&SExamines the teaching/learning processes of individuals. Focuses on learning theory, developmental theory, information processing, motivation, and intelligence. Particular attention to child and adolescent development. Liberal Arts. This course is a prerequisite for 300-level courses in EDUC.

## EDUC 221 Children's Literature

3-S
Offers a survey of various genres in literature for preschool and elementary children with an emphasis on developing criteria for selection and evaluation. Particular attention to international and multicultural children's literature, literary criticism as it pertains to children's literature, and developmental and philosophical perspectives. Liberal Arts.

## EDUC 223 Adolescent Literature

3-F
Students 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 to international and multicultural literature as well as literary criticism of young adult literature. Liberal Arts.
EDUC 230, 330, 430 Special Topics
2 or 4-WSP
Depending on interest, demand, and faculty availability, courses are offered to allow students to consider issues and aspects of educational theory and practice not fully explored elsewhere in the curriculum.

## EDUC 235 Educating Exceptional Learners

 3-F\&SExamines 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 on the evidence-based practices and collaborative role of the general educator in meeting the needs of exceptional learners in inclusive settings. Liberal Arts. This course is a prerequisite for 300 -level courses in EDUC.

## EDUC 240 Teaching in Urban America

2-May
Provides exposure to and understanding of race, class, and culture issues in contemporary urban schools. Students develop awareness of family and community as partners with schools in the education enterprise. Students participate in a 10-day field experience in an urban school, working as teachers' assistants. Fulfills part of General Education Changing World requirement. This course is a prerequisite for 300-level courses in EDUC. Prerequisite: EDUC 202
EDUC 304 Language and Literacy Development in the Middle Grades
3-Summer21
Examines the role of language in middle school curriculum (grades 5-9) from philosophical, cultural, and technological perspectives. Emphasis on the changing landscape of literacy and how to develop a culturally
relevant learning environment that empowers student voices through multiple literacy genres in a digital era. Intended for EDUC juniors, seniors, and postgrads. According to New York State teacher certification requirements ( $8 / 2015$ ), graduates who are granted an Initial Teaching Certificate from New York State and who complete 6 credits of middle-grades coursework with a C or better may be able to extend their teaching certificate to include the middle grades through the Individual Evaluation for Additional Classroom Teaching Certificate pathway. This course is restricted to Houghton College Education majors who have completed junior-level coursework in the major and graduates of Houghton's Education program. Any other enrollees must receive permission from the instructor.
EDUC 305 Middle School Content-Area
Learning Strategies
3-Summer21
Examines a variety of research-validated content-area learning strategies, selfadvocacy strategies and process strategies for use in inclusive classrooms in the middle grades (grades 5-9). Students research, read, review, critique, and develop a variety of instructional strategies for use with middlegrade learners (with and without disabilities) across multiple content areas. According to New York State teacher certification requirements (8/2015), graduates granted an Initial Teaching Certificate from New York State who complete 6 credits of middle-grades coursework with a C or better may be able to extend their teaching certificate to include the middle grades through the Individual Evaluation for Additional Classroom Teaching Certificate pathway. This course is restricted to Houghton College Education majors who have completed junior-level coursework in the major and graduates of Houghton's Education
program. Any other enrollees must receive permission from the instructor.
EDUC 313 Language, Literacy and Curriculum Integration for Diverse Learners
3-S
Considers the role of language in secondary curriculum from philosophical, technical, cultural, and political perspectives. Models of integrating literacy across the curriculum for diverse secondary learners are explored and applied.
EDUC 314 Inclusive Childhood Practicum I 1-F
Two half-days per week in either a primary (grades 1-3) or intermediate (grades 4-6) classroom. Focus on observing children and the learning environment, assisting the classroom teacher with daily routines, and supporting the learning of individual children. Taken concurrently with EDUC 320 and 328. Prerequisites: EDUC 240, 235, 219, 202
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 329, 341 and 342. Prerequisites: EDUC 320, 235, 325, 328, 314
EDUC 320 Curriculum and Assessment in Inclusive Classrooms
4-F
Explores development of elementary curriculum and assessment and creation of learning environments that support diverse learners in inclusive settings. Includes an examination of New York State and Common Core Learning Standards, differentiated instruction and assessment practices, lesson and unit planning, and responsive approaches to classroom management with purposeful attention to instructional technology. Taken concurrently with EDUC 314 and 328.

EDUC 325 Issues in Inclusive Education I
2-F
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 to the evaluation of various teaching methodologies and the development of appropriate academic and behavioral interventions for students with disabilities. Inclusive Childhood Education majors take this course concurrently with EDUC 314, 320, and 328. Inclusive Adolescence Education majors take this course concurrently with EDUC 338.
EDUC 326 TESOL Practicum: K-12
2-Mayterm/Summer
Focuses on observing students for whom English is a new language (ENL) under the supervision of a certified ENL teacher. Involves assisting the teacher with daily routines and supporting the learning needs of individual students. Required of TESOL majors the spring/summer after completing junior-level coursework in the major.
EDUC 328 Foundations of Language and Literacy for Diverse Learners I
3-F
Introduces the nature of children's diverse language and literacy learning and the assessment and instruction of 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 English language arts. Taken concurrently with EDUC 314, 320, and 325. Prerequisites: EDUC 235 and 219 or permission
EDUC 329 Foundations of Language and Literacy for Diverse Learners II
3-S
Examines authentic assessment and instruction of 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. Taken concurrently with EDUC 315, 341, and 342. Prerequisite: EDUC 328
EDUC 331 Secondary Teaching: General Methods
2-S
Addresses a range of responsive pedagogical approaches and delivery methods designed to meet the learning needs of adolescent learners across the curriculum. Inclusive Adolescence Education and Adolescence Education majors from all content areas take this course concurrently with the methods course in their subject area (EDUC 33X). Should be taken the year prior to student teaching. Prerequisite: EDUC 338
EDUC 332, 333, 334, 335, 336 Secondary Teaching: Methods
2-S
Inclusive Adolescence Education majors and Adolescence Education majors from all content areas will take the methods course in their subject area (see list below) concurrently with EDUC 331. These courses should be taken the year prior to student teaching. Each course addresses content-specific pedagogy and planning, New York State Learning and Common Core Standards, and curricular issues. Students analyze classroom management, assessment strategies, and technology platforms and discuss ways to improve collaboration with school community members. Practicum placement with a secondary teacher certified in the target content area is part of the course. EDUC 332 English Methods, EDUC 333 Foreign Language Methods, EDUC 334 Math Methods, EDUC 335 Science Methods, EDUC 336 Social Studies Methods. (Inclusive Adolescence Education Generalist majors will take one of these courses. EDUC 332 or 334 is encouraged.)

## EDUC 338 Inclusive Curriculum \& Assessment in Secondary Classrooms

 4-FExplores the development of middle/high school curriculum and assessment and the creation of learning environments that support diverse learners in inclusive settings. Includes an examination of New York State and Common Core Learning Standards, differentiated instruction and assessment practices, lesson and unit planning, and responsive approaches to classroom management with purposeful attention given to instructional technology. Prerequisites: EDUC 202, 219, 235, and 240 or permission
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. Focus 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, 329, and 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 Common Core and New York State Learning Standards; students analyze strategies for assessment and methods of enrichment and remediation in both subjects. Taken concurrently with EDUC 315, 329, and 341.

EDUC 371 TESOL Methods: ELA 3-WSP
Examines the language, reading, and writing development of English language learners and
explores assessment and instructional methods of teaching English Language Arts to speakers of languages other than English. Also explores ways of creating a classroom learning environment that encourages English language and literacy development for all learners. Prerequisites: LING 350, 220, and 351 or permission
EDUC 372 TESOL Methods: Content Areas 3-WSP
Explores assessment and instructional methods designed to make content area (math, science, social studies) concepts comprehensible while promoting English language development. Prerequisite: EDUC 371

## EDUC 391 Independent Study

1, 2, 3, or 4-WSP
EDUC 400 Student Teaching and Certification Orientation
0-S
Addresses critical information necessary to be fully equipped for student teaching. Candidates enroll in the spring semester prior to the student teaching year. This workshopstyle course addresses the professional responsibilities of student teachers and thoroughly guides students through certification procedures. Course meets for a minimum of six 2 -hour sessions across the semester and is aligned with methods coursework in the major. This course has a lab fee. Corequisite: EDUC 313 (ADE, IADE, TESOL), 329 (ICE), MED 352 or 354 (MED)

## EDUC 408 Inclusive Childhood Student

 Teaching12-F\&S
Twelve weeks in a supervised student teaching experience in inclusive classroom setting(s), either primary (grades 1-3) or intermediate (grades 4-6) depending on the elementary practicum placement. Designed for students who have completed all education coursework except EDUC 425 and 485. Taken concurrently
with EDUC 203, 204, 205, 425, and 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 10-12 in the appropriate content area. Includes a minimum of two weeks with full teaching load responsibilities. Taken concurrently with EDUC 203, 204, 205, 410, and 485. (See department policy on employment and activities while student teaching.) Prerequisites: EDUC 33X (Secondary Teaching Methods), 338, 313
EDUC 410 Secondary Student Teaching II 6-F\&S
Six- to seven-week placement in either grades 7-9 or 10-12 in the appropriate content area. Includes a minimum of two weeks with full teaching load responsibilities. Taken concurrently with EDUC 203, 204, 205, 409, and 485. (See department policy on employment and activities while student teaching.) Prerequisites: EDUC 33x (Secondary Teaching Methods), 313, 338
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). Includes a minimum of two weeks with full teaching responsibilities. Taken concurrently with EDUC 203, 204, 205, 423, and 485. (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). Includes a minimum of two weeks with full teaching responsibilities. Taken concurrently with EDUC 203, 204, 205, 422, and 485. (See department
policy on employment and activities while student teaching.)
EDUC 425 Issues in Inclusive Education II 2-F\&S
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 during the junior year. Required for students majoring in Inclusive Adolescence Education and Inclusive Childhood Education.

EDUC 485 Senior Capstone: Seminar on Reflective Teaching 2-F\&S

Provides student teachers with opportunity to summarize and reflect on their knowledge and understanding of the liberal arts and the nature of teaching and learning in diverse 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 in the student teaching semester. Fulfills General Education Writing-Enriched course requirement. This course has a lab fee.

## EDUC 491 Independent Study

1, 2, 3, or 4-WSP
EDUC 496 Honors in Education
2 or 4-WSP
ENGL 111 College Literary Studies
3-S
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 selected, qualified students. Liberal Arts.
ENGL 202 Literary Voices
3-F\&S, Summer

Principles of literary interpretation. Topical or thematic study of texts, the reading process, and critical perspectives to develop analytical thinking and appreciation. Liberal Arts.

## ENGL 205 English Grammar

1-WSP
Intensive review of English grammar emphasizing practice in punctuation, parts of speech, syntax, usage, and sentence construction. Elective credit only. Liberal Arts.
ENGL 213 British Literature I
3-F
Surveys major works and literary movements in the British Isles from Beowulf through Neoclassicism. Provides biographical, historical, and ideological information to enhance understanding. Liberal Arts.
ENGL 214 British Literature II
3-S
Surveys major works and literary movements of the Romantic, Victorian, modern, and postmodern periods in their biographical, historical and ideological contexts. Liberal Arts.

## ENGL 217 American Literature I

3-F
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. Liberal Arts.

## ENGL 218 American Literature II

Survey of significant figures in American literature from the Civil War to the present. Emphasis on the emergence of realism, the development of naturalism, the rise of literary modernism, and new directions in the late $20^{\text {th }}$ and $21^{\text {st }}$ centuries. Liberal Arts.
ENGL 291, 292, 391, 392, 491, 492 Independent Study
1, 2, 3, or 4-WSP

Liberal Arts.

## ENGL 301 Critical Approaches to Literature

 3-SInterpreting, writing about, and researching literary texts. A brief survey of the history of literary critical methods and theoretical schools. Development of critical vocabulary and facility in the use of literary terms and MLA documentation. Required of English majors. Fulfills General Education WritingEnriched course requirement. Liberal Arts.
ENGL 306 Environmental Literature 3-WSP
Study of key literary texts that provide conceptual frameworks for understanding the relationship between humanity and the natural world. Readings include influential texts from European Romanticism and the American conservation movement along with texts that both inspire and critique contemporary environmentalism. Liberal Arts.
ENGL 311 British Renaissance Literature 3-WSP
Poetry and prose from More to Milton (including Shakespeare). Attention given to political, historical, and religious background. Emphases on Spenser, Milton, and the $17^{\text {th }}$ century devotional poets. Liberal Arts.
ENGL 312 Literature in the Age of Enlightenment
3-WSP
Significant British writers from 1660 to 1800. Attention to the ideas of Enlightenment and 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
3-WSP
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 3-WSP
Literature of the Victorian period in the context of selected intellectual, artistic, and popular culture movements. Liberal Arts.
ENGL 315 Modern and Contemporary Drama 3-WSP

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 319 Modern and Contemporary American Poetry
3-WSP
American poetry from 1900 to the 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
3-WSP
British poetry from 1900 to the 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 British Fiction
3-WSP
An exploration of major trends in $20^{\text {th }}$ - and $21^{\text {st }}$-century British fiction. Includes selected examples of the modern, postmodern, and postcolonial novel in the British Isles from Joyce and Woolf to Byatt, Winterson, and Rushdie. Liberal Arts.

## ENGL 322 American Fiction

3-WSP
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 3-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
3-F\&S
In-depth study of one author. Comprehensive reading of primary works. May also include examination of influences. Authors studied may include Jane Austen, Emily Dickinson, John Milton, and William Shakespeare. Required of English majors. Liberal Arts.
ENGL 338 Development of the Novel 3-WSP
Study of the development of the genre of the novel from its origins in the $18^{\text {th }}$ century through the multiplot literary realism of the $19^{\text {th }}$ century. Examines both narrative form and cultural, historical, and economic context. Liberal Arts.

## ENGL 350 Major Author: Shakespeare

 3-WSPSurvey of significant examples of Shakespeare's histories, comedies, tragedies, and some poetry. Biographical, historical, and critical background and 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 361 Contemporary World Literature
3-S

Selections from world masterpieces of the $20^{\text {th }}$ and $21^{\text {st }}$ centuries, especially novels since World War II from the non-English-speaking world. Fulfills part of General Education Changing World requirement. 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. May include literature by women, postcolonial literature, African-American literature, immigrant literature, and British or American Contemporary literature. Liberal Arts.
ENGL 416 Capstone: Signature Presentation 1-F\&S

Students work on identifying, researching, revising, and preparing a project for a public presentation. Liberal Arts.
ENGL 418 Senior Capstone: Seminar 3-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 318. May include major author study (such as Jane Austen, Emily Dickinson, John Milton, or William Shakespeare) or 300-level period and Special Topics such as Literature in the Age of Enlightenment and Modern and Contemporary British Poetry. By permission of instructor only. Liberal Arts.
ENGL 496 Honors in English
4-S
Liberal Arts.
ENGR 171 Introduction to Engineering Design 3-S
Introduction to engineering design process: needs analysis, idea-generation, engineering analysis, multidisciplinary teamwork, project management, oral and written communication. Applications of engineering software applications. Students learn and develop their understanding of the engineering design process through work on
challenges in teams. Two lecture and three lab hours each week. This course has a fee.

## ENGR 201 Digital Design

3-S
Approaches for specifying, describing, and realizing combinational and synchronous sequential digital logic designs, including finite-state machines and hardware description languages. Design finite-state machines to implement solutions for realistic scenarios. Realization technologies emphasize programmable logic (e.g., FPGA). Work on multiple projects throughout the semester. Two lecture and three lab hours each week. This course has a fee.

## ENGR 202 Circuits \& Analog Electronics I

3-F
Voltage, current, resistance, inductance, capacitance; modeling physical circuits with lumped elements; DC circuit analysis techniques; operational amplifiers; Laplace transforms; transient analysis; electronic device modeling; applications to digital and analog electronic circuits. Two lecture and three lab hours each week. This course has a fee. Prerequisites: MATH 182, PHYS 152

## ENGR 203 Circuits \& Analog Electronics II

3-S21
AC circuit analysis; frequency response analysis; electronic device modeling; applications to digital and analog electronic circuits. Two lecture and three lab hours each week. This course has a fee. Prerequisite: ENGR 202
ENGR 204 Digital Signal Processing I
3-F21
Discrete-time signals and systems, sampling process, Shannon's sampling theorem, aliasing, digital filters, frequency response, finite-impulse-response (FIR) filters, infinite-impulse-response (IIR) filters, Z-transform, zeros and poles, relationships among time, frequency, z domains, Fourier series analysis, Fourier transform, projects using digital signal
processors. Two lecture and three lab hours each week. This course has a fee. Prerequisite: MATH 182

ENGR 211 Programming for Engineers 4-F20
Introduces important concepts in programming and software engineering, focusing on programming in a systems language. Concepts include structured programming, program design, basic algorithms and problem solving. Students gain practical experience writing, debugging, and analyzing programs.
ENGR 221 Statics
3-F21
Application of the laws of classical mechanics to simplified, plausibly real-world problems, including the analysis of cables, frames, trusses, beams, machines, and mechanisms. Two lecture and three lab hours each week. This course has a fee. Prerequisites: MATH 181, PHYS 151
ENGR 222 Dynamics
3-F20
Development of classical Newtonian mechanics focusing on the dynamics of rigid bodies in one, two, and three dimensions. Topics include work and energy, central forces, collisions, non-inertial frames of reference, oscillations, vibrations. Prerequisites: MATH 181, PHYS 151
ENGR 301 Electromagnetic Design 3-S22
Design applications of electromagnetic theory, including transmission lines, impedance matching, antennas, waveguides, and microwave filters. Two lecture and three lab hours each week. This course has a fee. Prerequisites: MATH 241, PHYS 353
ENGR 302 Engineering System Modeling 3-S21
Engineering modeling: application of basic conservation and accounting principles and constitutive relationship to develop
mathematical models. Engineering analysis: characterization of mathematical model in the time, frequency, and transform domains. Engineering design: selection of system parameters to meet specified performance criteria. Two lecture and three lab hours each week. This course has a fee. Prerequisites: MATH 241, ENGR 202

## ENGR 303 Digital Signal Processing II

3-S22
Advanced signal-processing techniques, quantization, nonlinear filtering techniques, adaptive filtering, and multidimensional signal process; applications include speech processing, image processing, and pattern recognition. Two lecture and three lab hours each week. This course has a fee. Prerequisite: ENGR 204

ENGR 305 Embedded Systems Design I 3-WSP
Fundamentals of embedded systems (hardware and software) design: microcontrollers, interfacing, analog-to-digital conversion, digital-to-analog conversion, and embedded system design methodologies. Small-scale projects emphasize embedded system design, test design, implementation, testing, debugging, and documentation. Substantial final design project. Two lecture and three lab hours each week. This course has a fee. Prerequisites: ENGR 201, ENGR 211
ENGR 306 Embedded Systems Design II 3-WSP
Advanced embedded system design projects; applications include robotics and UAVs. Two lecture and three lab hours each week. This course has a fee. Prerequisite: ENGR 305
ENGR 308 Numerical Analysis for Engineers 3-S22
Considers the solution of engineering problems using computational methods. Topics include error analysis, root-finding, linear algebra, curve-fitting, interpolation, differentiation, integration, and ordinary
differential equations, as time permits. Limitations also covered for the discussed methodologies. Prerequisites: ENGR 171, MATH 241

## ENGR 321 Optics

3-F22
An introduction to the study of light. Includes topics from geometrical optics, such as optical system analysis and aberration theory, and topics from physical optics, including interference, diffraction, and Fourier optics. Special topics from quantum optics also included. Two lecture and three lab hours each week. Prerequisites: MATH 182, PHYS 152; corequisite: MATH 241

ENGR 322 Fluid Mechanics
3-F21
Fluid statics; fluid dynamics; Bernoulli's equation; control-volume analysis; basic flow equations of conservation of mass, momentum and energy; differential analysis; potential flow; viscous incompressible flow. Prerequisites: MATH 241, PHYS 152

## ENGR 323 Thermodynamics

3-F21
Theory and application of energy methods in engineering, energy transfer by heat, work, and mass; thermodynamic properties; analysis of open and closed systems; second law of thermodynamics and entropy; gas, vapor, and refrigeration cycles; and applications. Prerequisites: MATH 241, PHYS 152
ENGR 371, 372, 373, 374, 375 Engineering Design
2-F\&S
Applications of the engineering design process with a different emphasis each semester: multidisciplinary teamwork (ENGR 371), engineering design process (ENGR 372), project management (ENGR 373), realistic constraints and standards (ENGR 374), and business plan development (ENGR 375); reflective student design portfolio; regular
student presentations on engineering topics outside existing curricula. Students demonstrate development with respect to expected learning outcomes through a series of individual and team design projects on or off campus with individual faculty members, industry mentors, or internships in appropriate local companies. Preference for vertically integrated teams comprising students at all levels. Two lab hours each week. This course has a fee. Prerequisites: ENGR 171, MATH 182, PHYS 152

## ENGR 401 Control Systems I

## 3-WSP

Analysis and design of control systems with emphasis on modeling, state variable representation, modeling and dynamic response, controller configurations, root locus design methods, frequency response design methods, and state-space design methods. Two lecture and three lab hours each week. This course has a fee. Prerequisite: ENGR 303

## ENGR 402 Control Systems II

3-WSP
Controller design via discrete-time equivalents, direct methods, state feedback and observers, Quantization effects. LQR control and introduction to LQG optimal control. Two lecture and three lab hours each week. This course has a fee. Prerequisite: ENGR 401

ENGR 451 Power Systems I
3-WSP
Three-phase AC circuit analysis, single-phase and three-phase transformers, electric circuit models of transformers, three-phase transformer connections, transformer and load modeling, transmission line parameter calculation, symmetrical and unsymmetrical fault analysis. Prerequisite: ENGR 203

## ENGR 452 Power Systems II

3-WSP
Effects of electromagnetic transients in distribution systems, transient analysis,
lightning and switching surges, mechanisms of transient generation, insulation coordination, grounding, surge protection devices, and shielding. Prerequisite: ENGR 451
ENGR 482 Capstone Engineering Design 3-WSP

Culminating engineering design experience. Student engineering design portfolio selfassessment and reflection with respect to student outcomes. Final design project reports, oral and written, are prepared. Prerequisites: ENGR 371, 372, 373, 374, 375
ENGR 295, 395, 495 Special Topics in Engineering
1,2,3,4-WSP
Introduction to areas of engineering not treated in other courses.
ENGR 393 Summer Collaborative Research in Engineering
1,2,3, or 4-Summer
Work on an engineering research project in collaboration with a faculty member.
Students work individually or in small teams on activities that may include literature review, engineering design, modeling, data analysis, and written or oral presentation of their work. May be repeated for credit. Prerequisite: Instructor permission
ENGR 496 Honors in Engineering 4-WSP
ENST 201 Environment and Society 3-F21
Explores the dynamic relationships between humans and the natural environment with special emphasis on the unique ways that contemporary society influences these interactions. Examines various causes and consequences of complex environmental challenges (including biodiversity loss, population growth, climate change, and environmental justice) and evaluates possible solutions from social, political, scientific, and ethical perspectives. Fulfills part of General

Education Changing World requirement. Liberal Arts.

## ENST 310 Environmental Public Policy

## 3-S22

A careful examination of public policy related to environmental issues on local, national, and global levels. Uses specific case studies to examine and evaluate policies addressing such topics as nuclear waste disposal, hydraulic fracturing, energy use on public lands, and global climate change policy. Also explores contemporary social and political values influencing environmental policies. Liberal Arts.

## ENST 311 Environmental Ethics

3-WSP
Examines several contending ways of thinking about human beings' relationship to and responsibility for the non-human world. In addition to general questions about the value of the non-human world, explores several specific areas of applied reflection, such as the ethics of eating meat. Liberal Arts.

## ENST 320 Environmental Communication

3-F20
Examines the unique challenges and realities of communicating about environmental issues with an emphasis on contemporary American culture. Addresses environmental communication by exploring such topics as advocacy, social change, partisan politics, sociocultural identity expression, and "green" marketing. Also critiques various case studies relevant to public communication about environmental issues. Liberal Arts.
EQST 101 Introduction to Equestrian Studies 1-F

Overview of practices and procedures needed for students in Equestrian concentrations and minors as well as information regarding requirements, evaluation of student strengths and interests, and application to Houghton's equestrian program. A mandatory
introduction for all students interested in equestrian studies.

## EQST 113 Horsemanship I

1-F\&S
Focuses on the student developing fundamental skills in understanding and handling horses from the ground and in the saddle. Students learn how to safely interact with horses and develop understanding of basic riding and knowledge of horsemanship. One riding lab per week. This course has a fee.

EQST 214 Horsemanship II
2-F\&S
Building on fundamental skills and expanding knowledge of hunt seat, dressage, and/or western riding. This is the base riding course for the Equine Management degree program and provides a solid foundation for students to progress into discipline specific courses. One riding lab per week. Prerequisite: EQST 113 or permission. This course has a fee.
EQST 222 Equestrian Pedagogy Methods 2-S

Using the Certified Horsemanship Association (CHA) standards and materials, students are instructed on safety, lesson planning, and lesson implementation to become certified riding instructors in both English and western disciplines. One riding lab per week. Lab fees required. Prerequisite: EQST 214, 276, or permission. This course has a fee.
EQST 224 CHA Riding Instructor Certification 1-May
Students work toward gaining their CHA riding instructor certification in English and/or western disciplines. May obtain CHA levels 14 riding instructor certifications. Prerequisites: EQST 214 and 222 or permission. This course has a fee.

EQST 225 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. One riding lab per week. This course has a fee. Prerequisite: EQST 214 or permission. Fulfills General Education Wellness requirement.
EQST 226 Foundations of Equine-Assisted Therapies
2-S21
Provides a basic understanding of the field of equine-assisted therapies and an appreciation for the history, philosophy, principles, populations, prescriptions, and practices of equine-assisted therapies and activities as a professional service. Identifies and explains the symptoms, causes, and functioning characteristics of individuals with special needs and the effects on individuals of the practical application of equine-assisted therapies and services. Focus on the standards and certification exams of the PATH International Riding Instructor Certification Program.

## EQST 230 Principles of Western Riding

 2-F20Philosophy and techniques of western riding. Students study various topics related to the western discipline and develop the skill needed to perform western riding patterns and prepare for western competitions. One riding lab per week. This course has a fee. Prerequisite: EQST 214 or permission. Fulfills General Education Wellness requirement.
EQST 231 Equine Facility Management I 2-S
Focuses on principles of horse management, equestrian competition, and equine programming. Students have the opportunity to obtain a certification through CHA's Equine Facility Manager Program. This course has a fee.
EQST 238 Equine Science I
2-S
Provides a systematic approach to basic equine anatomy and physiology and highlights important disease processes. Essential for any
equine professional or educated hobbyist. Highlights current equine medical points of interest or disease outbreaks and gives students a basis to select and communicate with qualified equine medical professionals. This course has a fee.
EQST 240 Teaching Riding in Bolivia
2-WSP
Combines teaching with intercultural experience in a missions outreach setting. Students 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. One riding lab per week. This course has a fee. Prerequisite: EQST 214 or permission. Fulfills General Education Wellness requirement.
EQST 295, 395, 495 Special Topics
2 or 3-WSP
May be taught regarding special topics in horsemanship, such as riding for the disabled, CHA trail guide certification, CHA instructor of riders with disabilities certification, and western reining. One riding lab per week. This course has a fee.

## 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, and stadium jumping techniques). Meets two weeks prior to the start of the semester. This course has a fee. Prerequisites: EQST 276 and 325 or
permission. Fulfills General Education Wellness requirement.

## EQST 326 Horsemanship: Jumping II

2-S
Building skills, refining techniques, and expanding technical knowledge learned in EQST 225. One riding lab per week. This course has a fee. Prerequisite: EQST 225 or permission.
EQST 328 Horse Show Judging
2-F21
Lectures and field trips incorporating judging assignments for learners, understanding the duties of the judge, and using good judging to educate riders. This course has a fee. Prerequisites: EQST 225 or permission.
EQST 331 Equine Facility Management II 2-S
In depth look at the principles learned in EQST 231. Students prepare for a career in the equine industry by obtaining practical knowledge through hands-on experiences, projects, and individualized assignments. This course has a fee. Prerequisites: EQST 231 or permission.

## EQST 334 Competition Dressage

2- F\&S
Builds on the foundation laid in EQST 276 and guides students into the next levels as they work toward the EFI levels of dressage. Students develop greater accuracy of their aids and more body control as they progress in their riding. One riding lab per week. This course has a fee. Prerequisite: EQST 276 or permission
EQST 336 Methods and Materials of EquineAssisted Therapies
2-S22
Provides opportunities to acquire skills in the field of equine-assisted therapies including assessing clients, developing treatment plans, conducting activity analysis, implementing activities, and evaluating outcomes of equine programs for individuals with special needs.

Focus on the standards and certification exams of the PATH International Riding Instructor Certification Program. This course has a fee.
EQST 337 Adventure Trails Riding and Guiding 2-May
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. This course has a fee. Prerequisite: EQST 276 or permission
EQST 338 Equine Science II
2-S
Expands on skills, knowledge, and techniques learned in EQST 238 pertaining to equine anatomy, physiology, health, disease, and wellness practices. This course has a fee. Prerequisite: EQST 238 or permission
EQST 421 Advanced Dressage 2-S21
Builds on knowledge and skills developed in EQST 334. Students continue to work toward the FEI levels of dressage as they build a deeper understanding of their aids and how to effectively communicate with the horse. Builds to create a solid and deep understanding of classical dressage. One riding lab per week. This course has a fee. Prerequisite: EQST 334 or permission. Fulfills General Education Wellness requirement.
EQST 424 Principles of Training
3-F
Foundations of training young horses and retraining problem horses. Students work with the actual training of a young horse, utilizing classical principles, philosophy, and methodology. Meets one week prior to the start of the semester. This course has a fee. Requires instructor permission.
EQST 427 Mini-Prix Jumping Equitation 2-F
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. One riding lab per week. Lab fees required. Prerequisite: EQST 326 or permission. Fulfills General Education Wellness requirement.
EQST 429 Equine Nutrition 1-S
Discusses equine nutrition and gives students practical knowledge and skills needed to develop and maintain a healthy nutrition program for the horses in their care. Covers a variety of topics including basics of equine nutrition, supplementation, and balancing horse-feeding plans. One riding lab per week. This course has a fee.

## EQST 430 Equine Lameness Identification

 1-STeaches students to recognize gait abnormalities, lameness, and hoof-related issues in the horse. Students learn how to identify lameness using physical examination and gait evaluation. This course has a fee.

## ESCI 101 Physical Geology

3-F21
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. Liberal Arts.

## ESCI 103 Physical Geology Lab

1-F21
Laboratory to accompany ESCI 101 Physical Geology. Three lab hours per week. Liberal Arts.

## ESCI 212 Environmental Earth Science

## 4-WSP

Relationship between humans and Earth systems in the atmosphere, hydrosphere, and lithosphere. Environmental problem-solving. Laboratory focuses on applications of GIS and GPS to environmental and earth science problems. Three lecture, three laboratory hours each week. 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
Properties and circulation of water on the surface of the land, underground, and in the atmosphere. Topics include fluid mechanics, groundwater, wastewater, and environmental concerns from an engineering perspective. Three lecture, three laboratory hours each week. Liberal Arts.

ESCI 291, 292, 391, 392, 491, 492 Independent Study
1, 2, 3, or 4-WSP
Liberal Arts.
ESCI 295, 395, 495 Special Topics in Earth Science
1, 2, 3, or 4-WSP
Liberal Arts.
EXS 275 Injury Evaluation \& Management 3-F21
Introduces core concepts related to the prevention, assessment, and management of common extremity, pelvic, and trunk injuries. Underlying anatomical and biomechanical factors contributing to these injuries are emphasized. Students learn foundational techniques related to history-taking and physical examination including observation and palpation of musculoskeletal structures along with special tests to assess range of motion, neuromuscular integrity, functional capacity, and postural abnormalities. In addition, students study the philosophy behind treatment interventions and acquire practical skills in taping, wrapping, padding, and bracing. This course has a fee.

## EXS 277 Therapeutic Exercise \& Rehabilitation

## 3-F21

Mechanisms, signs, symptoms, and 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. Promotes understanding of the indications, contraindications, applications, and physiological effects of various therapeutic modalities and manual techniques used in rehabilitation of injuries. This course has a fee.

## EXS 345 Exercise Physiology

4-S
Analysis of the physiological changes that occur in the body during exercise, after exercise, and during a training period. Fulfills General Education Wellness requirement. This course has a fee. Prerequisite(s): BIOL 217 and 218 or permission

## EXS 347 Kinesiology

4-S
Analysis of the musculoskeletal system and its interrelationship with human movement. This course has a fee. Prerequisites: BIOL 217, 218 or instructor permission. Liberal Arts.
EXS 352 Pre-Physical Therapy Field Experience I
2
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 preapproval.) Pre-PT majors only. Prerequisite(s): EXS 275, 277; EXS 277 can also be taken concurrently.

EXS 353 Pre-Physical Therapy Field Experience II
2
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 preapproval.) Pre-PT majors only.
Pre/Corequisite: EXS 277; prerequisite: EXS 275.

## FREN 101 French Level 1

3-WSP
Emphasizes development of communicative competence in French, bringing students to the novice-mid level of oral proficiency. Communicative tasks specifically focus on interpersonal and interpretive modes. Additional activities develop awareness and appreciation of the variety of cultures of the French-speaking world. Fulfills part of General Education Changing World requirement. Liberal Arts.

## FREN 102 French Level 2

3-WSP
Emphasizes development of communicative competence in French, bringing students to the novice-high level of oral proficiency. 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 French-speaking world. Fulfills part of General Education Changing World requirement. Liberal Arts.
FREN 191, 192, 291, 292 Independent Study $1,2,3$, or 4-WSP

May be taken for 1-4 credits with approval of the professor. Liberal Arts.
FREN 355 French Media and Society
4-Summer
Using advanced conversation structures, uses a variety of French media as a window on modern aspects and issues of French society today. Students use higher-level communication skills to engage abstract thoughts and concepts in oral as well as written forms. Includes reinforcement of correct pronunciation and accent. Taught in French by national professors at the Université de Caen.

## FREN 356 Exploring French Cinema

4-Summer21
Using advanced conversation structures, uses cinema as a window into French history and culture. Students use higher-level communication skills to engage abstract thoughts and concepts. Includes a focus on pronunciation and accent. Taught in French by national professors at the Université de Caen.

## FREN 360 French Civilization and History

## 4-Summer

Introduces the post-intermediate student to the historical side of French civilization (through WWII), then connects various historical threads to current institutional, political, and social aspects of modern France. Involves numerous visits to related sites in Normandy and Paris, interacting with the topics studied while in the target culture. Taught in French.

## FREN 361 French Contemporary French Society and Culture

4-Summer21
Concentrates on French life since WWII. Particular attention to social, political, and economic structures along with trends in art, media, and daily living. Taught in French.
FREN 362 French Christian History
4-Summer

From legendary stories of the Apostle Paul and St. Denis through the medieval era of Bishop Aubert and Rollo the Viking through the French spiritual "forefather" of the Reformation and one of its leaders, Jean Calvin, to the post-WWII missionary outreach, the sweeping arc of Christianity has exerted a profound influence on the course of French history. This study gives students a deep understanding of and appreciation for the rich spiritual heritage we enjoy throughout France. Taught in French.
FREN 395 Special Topics
4-WSP
Study of literary and cultural topics not covered elsewhere in the curriculum. Liberal Arts. Prerequisite: FREN 301 or equivalent or permission

## GERM 101 German Level 1

3-WSP
Introduces and develops the skills of comprehending, speaking, reading, and writing German with particular attention to pronunciation and intonation. Introduces students to the cultures and histories of German-speaking countries. Fulfills part of General Education Changing World requirement. Liberal Arts.
GERM 102 German Level 2
3-WSP
Introduces and develops the skills of comprehending, speaking, reading, and writing German with particular attention to pronunciation and intonation. Introduces students to the cultures and histories of German-speaking countries. Fulfills part of General Education Changing World requirement. Liberal Arts.
GERM 191, 192, 291, 292 Independent Study $1,2,3$, or 4-WSP
May be taken for 1-4 credits with approval of the professor. Liberal Arts.

## GREK 101 Beginning Greek Level 1

3-F21

Introduction to Koine Greek. Stress on morphology and syntax designed to prepare students to read the Greek New Testament and use tools of study. This course or its equivalent is a prerequisite for all other Greek courses. Fulfills part of General Education Changing World requirement. Liberal Arts.

## GREK 102 Beginning Greek Level 2

3-S22
Further introduction to Koine Greek grammar using translation of New Testament texts and other Early Christian texts, emphasizing translation comprehension and practice with Greek tools. Fulfills part of General Education Changing World requirement. Liberal Arts. Prerequisite: GREK 101
GREK 191, 192, 291, 292, 391, 392, 491, 492 Independent Study
1, 2, 3, or 4-WSP
Liberal Arts.

## GREK 201 Greek Readings

3-WSP
Readings in New Testament Greek, the Septuagint, and other early Christian texts. Fulfills part of General Education Changing World requirement. Liberal Arts. Prerequisites: GREK 101, 102

## HEBR 101 Beginning Hebrew Level 1

3-F20
Introduction to Biblical Hebrew designed to give the student sufficient knowledge of grammar, morphology, syntax, and translation tools and theory to enable basic study of the Old Testament in its main original language. Fulfills part of General Education Changing World requirement. This course or its equivalent is a prerequisite for all other Hebrew courses. Liberal Arts.
HEBR 102 Beginning Hebrew Level 2
3-S21
Continuing introduction to Biblical Hebrew with emphasis on reading and translating Old Testament texts. Fulfills part of General

Education Changing World requirement. Liberal Arts. Prerequisite: HEBR 101
HEBR 191, 192, 291, 292, 391, 392, 491, 492 Independent Study
1, 2, 3, or 4-WSP
Liberal Arts.
HEBR 201 Hebrew Readings
3-WSP
Readings in Biblical Hebrew. Fulfills part of General Education Changing World requirement. Liberal Arts. Prerequisites: HEBR 101, 102

HIST 111 College Western Civilization
3-WSP
Survey of Western civilization from ancient Greece to the present. Examination of texts and historiography with attention to primary sources. Students engage in reading, writing and discussion about the course material. Taught at participating high schools to selected, qualified students. Liberal Arts.
HIST 112 College Survey of American History 3-WSP
Overview of American history from the Colonial period to the present. Taught at participating high schools to selected, qualified students. Liberal Arts.
HIST 191, 192, 291, 292, 391, 392, 491, 492 Independent Study
1, 2, 3, or 4-WSP
Liberal Arts.

## HIST 220 American History Survey

3-4-WSP
Overview of American history to the present. Liberal Arts.

## HIST 230 Medieval Europe

3-4-WSP
A survey of European history and culture beginning with the transition from Roman civilization and ending with the cultural changes that resulted in the Reformation. Particular emphasis on the themes of Western cultural formation, ecclesiastical development, monastic and lay spirituality,
and the birth of fundamental Western institutions. Primarily a reading course, relies heavily on primary sources. Liberal Arts.
HIST 242 Modern Europe, 1900-Present 3-4-WSP
Survey of $20^{\text {th }}$-and $21^{\text {st }}$-century European history beginning with the rapidly shifting political and intellectual landscape of Europe at the turn of the century and concluding with the refugee crisis in contemporary Europe. Special focus on the connection between violence and ideology. Topics of study include WWI, the rise of fascism and communism, WWII, the Holocaust, the Cold War, decolonization, cultural wars of the 1960s, collapse of communism, and rise of the European Union. Liberal Arts.
HIST 247 Switzerland: A Case Study in European Politics and Culture
3-4-WSP
General introduction to Switzerland, covering history, politics, literature, and culture. Topics include Switzerland as a multinational, multilingual, and multi-confessional country; Swiss neutrality, federalism, and direct democracy; the country's relation to the European Union; and its experience with immigration. Special attention to similarities and differences between Switzerland and the United States. Fulfills part of General Education Changing World requirement. Liberal Arts.

## HIST 249 African History

3-4-WSP
Sub-Saharan Africa from earliest times. Medieval empires of western Sudan, colonial rule, emergence of national states. Liberal Arts.
HIST 250 World History, 1500-Present 3-4-WSP
Survey of world history beginning with the plague and the discovery of the "New World." Traces the growing interconnectedness of the world and the problems and opportunities
that result from it. Regions of study include West Africa, South America, East Asia, and South Asia. Liberal Arts.

HIST 295, 395, 495 Special Topics
3-4-WSP
Group study of selected topics; open only by permission. Liberal Arts.

## HIST 299 Historical and Political Research

 1-WSPIntroduces skills necessary for research and writing within the humanities and humanistic social sciences. Students learn to identify scholarly arguments in the literature, recognize historiographic arguments, analyze primary sources, construct their own arguments, distinguish between primary and secondary sources, and assess appropriate methodologies. At the end, students present their own well-researched argument and criticize those of fellow students. Ideally taken in the sophomore year; students must either have previously taken or be simultaneously enrolled in a 200-level or higher major course. Liberal Arts.
HIST 324 Native American History and Politics
3-4-WSP
History of the United States policy toward Native American tribes from the founding of the country to the present. Special attention to how the legal system has dealt with the claims of Native Americans. Focus on changing conceptions of Indian nationhood and sovereignty in relation to the United States. Liberal Arts.
HIST 325 Modern Europe, 1789-1900
3-4-WSP
Survey of European history beginning with the French Revolution and concluding with the rise of aggressive nationalism. Topics of study include the French Revolution, Napoleonic wars, the Industrial Revolution, the rise of nation states, the introduction of radical
ideologies and mass politics, and the Scramble for Africa. Liberal Arts.
HIST 336 Imperial Russia (1721-1917) 3-4-WSP
Survey of Russian history from Peter the Great to Nicolas II. Particular attention to the question of what an empire is; how it functions; and how it shapes social, cultural, and political life. Topics include the Romanovs and life at court, the Napoleonic Wars, serfdom, the Russian intelligentsia, and the connection and tension between religion and empire. Liberal Arts.

## HIST 337 The Soviet Union and Beyond

 3-4-WSPSurvey of Russian/Soviet history from 1917 to 2012. Particular attention to the question of what socialism is and how it was imagined, constructed, and lived by Soviet people during the $70+$ years of the Soviet experiment. Topics include the Russian Revolution, Stalinism, the Gulag, WWII, the Cold War, everyday life in the USSR and dissidence. Liberal Arts.
HIST 348 Vienna 1900: Politico-Cultural Crisis and Creativity
3-4-WSP
Studies the late $19^{\text {th }}$-century crisis of faith and reason in turn-of-the-century Vienna, where the Habsburg Empire was crumbling under the pressure of ethnic and national rivalries and competing political ideologies. Across cultural realms-political, literary, philosophical, artistic, musical, architectural, scientific-a remarkable outburst of creativity by a group of first-rate writers, artists, and thinkers reveals the surface refinement and elegance as well as the subterranean turmoil and decay that mark the fin de siècle period. Liberal Arts.
HIST 359 Colonial America, 1600-1763
3-4-WSP
A seminar-style course focused on the cultural, religious, and intellectual sources of American identity. Details the foundations of this identity in the Puritan, Planter, Quaker,

African, and Backcountry migrations to British America. Major themes include the migrants' competing concepts of liberty, power, and community; colonial conflicts with the indigenous population; and the creation of an American culture as the colonists sought to assert their status as Britons against rising imperial power. Liberal Arts.
HIST 360 Early American Republic, 1763-1848 3-4-WSP
A seminar-style exploration of the American Revolution and Early National period, organized around several broad questions: Why was the American Revolution fought? How did it fundamentally shape the American character? What did the Constitution accomplish? How did revivalism, slavery, democracy, industrialization, and Westward expansion shape the new republic? Careful examination of key monographs and primary sources. Liberal Arts.
HIST 361 Civil War and Industrial America, 1848-1918
3-4-WSP
Begins with antebellum sectionalism followed by a deep analysis of the military, social, political, and economic aspects of the Civil War and Reconstruction. Examines the impact of the Industrial Revolution, Social Darwinism, Populism, Victorian culture, and theories of race and empire on American identity. Concludes by examining the Progressive search for order as the most influential period in American political history after the Founding. Liberal Arts.
HIST 362 Recent American History, 1918 to Present

3-4-WSP
Exploration of modern America from World War I to the present, emphasizing the political, economic, diplomatic, and social aspects of the period. Topics include the Great Depression, World War II, origins of the Cold War, the civil rights struggle, the women's
movement, student revolts, Vietnam, Watergate, the end of the Cold War, the impact of $9 / 11$, and globalization. Liberal Arts.
HIST 369 Luther and the German Reformation 3-4-WSP
Studies the social and political thought of Martin Luther in the context of the history and theology of the German Reformation. Topics include the doctrine of the Two Kingdoms, the relationship between church and state, the duties of a citizen, social reform (marriage, education, poor relief), and political revolution (the Peasants' War), all situated within Luther's life and times. Liberal Arts.
HIST 370 Evangelical Roots
3-4-WSP
Examines Evangelicalism from its roots in the $17^{\text {th }}$-century Reformation to the present, especially in Britain and America, where most of the movements originated and developed. Themes include the Great Awakenings, the debate over slavery and abolition, the Social Gospel, Fundamentalism, and the importance of trans-denominational networks in the $20^{\text {th }}$ century. Close attention paid to developments outside the Anglophone West, especially in recent decades, when African, Asian, and Latin American churches have become leaders in the global church. Liberal Arts.
HIST 376 Manzanar: Race, Citizenship, and War
3-4-WSP
Interdisciplinary exploration of race and American citizenship in war-time through a focus on Manzanar, one of the Japanese internment camps during WWII. Looks at the historical and political background to the internment and considers the Supreme Court's famous Korematsu decision in context. Then moves from legal materials to consider the treatments of Manzanar in memoir, literature, and photographic series by Ansel Adams and Dorothea Lange. Special focus on
constructions of American belonging as they appear in historical, political, and cultural contexts. Liberal Arts.
HIST 381 Historiography
3-4-WSP
History of historical writings and methods; theories of history. Liberal Arts.

## HIST 441 Genocides of the $20^{\text {th }}$ Century

 3-4 WSPIn-depth examination of four cases of genocide from four different continents in the $20^{\text {th }}$ century, comparing and contrasting them to probe broader questions about modernity, state violence, ideology, collaboration, the politics of memory, and the relative merits and difficulties of prosecuting perpetrators of genocide. Special attention to learning how to work with a variety of historical sources and the challenges historians face when studying genocides. Liberal Arts.
HIST 455 American Constitutional History 3-4-WSP
Survey of United States constitutional history from its origins to the present. Emphasis on the constitutional system as a whole rather than constitutional law as developed by the Supreme Court. Examines the origins and general principles of constitutional thought, their elaboration in the Founding, and their development through crises over state rights and union in the $19^{\text {th }}$ century, the Civil War amendments, liberty of contract, New Deal intervention, the developing doctrine of civil rights and civil liberties, and the growth of the administrative state. Liberal Arts.

## HIST 480 Senior Capstone: Senior History

 Seminar3-4-WSP
Capstone course for History and Political Science majors. Integration of concepts, knowledge, and methods from previous major coursework. Students improve research, writing, analytical, and communication skills by writing, revising, and defending in an oral
examination a substantial research project, based on original research in primary and secondary sources and similar in quality to what would be expected in a first semester of graduate study. Liberal Arts.
HIST 496 Honors in History
3-4-WSP
Liberal Arts.

## HUM 101 Enduring Questions: The Ancient and Medieval World

3-F
Chronological survey of literary, philosophical, and other texts in historical context from the earliest civilizations to 1450. Emphasis on the development of Western civilization with comparative attention to non-Western sources and contexts. Fulfills part of General Education Humanities requirement. Liberal Arts.
HUM 102 Enduring Questions: The Early Modern World
3-S
Chronological survey of literary, philosophical, and other texts in historical context from 1450 to 1800. Emphasis on the development of Western civilization with comparative attention to non-Western sources and contexts. Fulfills part of General Education Humanities requirement. Liberal Arts.

## HUM 150, 151 Independent Language Learning I \& II

3-F\&S
Designed to allow a student to study a language not currently offered by Houghton by utilizing available online language-learning programs. The student works largely independently with biweekly faculty oversight to ensure continued progress. Languages available currently include Danish, Dutch, Indonesian, Italian, Norwegian, Polish, Portuguese, Russian, Swedish, and Turkish. Student expected to reach a level equivalent to what would be attained in a typical first- or second-semester college language class and
will be required at semester's end to pay a modest fee for an external assessment of learning progress. Liberal Arts.
HUM 201 Enduring Questions: The Modern World
3-F\&S
Chronological survey of literary, philosophical, and other texts in historical context from 1800 to the present. Emphasis on the development of Western civilization with comparative attention to non-Western sources and contexts. Fulfills part of General Education Humanities requirement. Liberal Arts.
HUM 247 Switzerland: A Case Study in European Politics and Culture
3-4-WSP
General introduction to Switzerland, covering history, politics, literature, and culture. Topics include Switzerland as a multinational, multilingual, and multi-confessional country; Swiss neutrality, federalism, and direct democracy; the country's relation to the European Union; and its experience with immigration. Special attention to similarities and differences between Switzerland and the United States. Fulfills part of General Education Changing World requirement. Liberal Arts.
HUM 348 Vienna 1900: Politico-Cultural Crisis and Creativity
3-4-WSP
Studies the late $19^{\text {th }}$-century crisis of faith and reason in turn-of-the-century Vienna, where the Habsburg Empire was crumbling under the pressure of ethnic and national rivalries and competing political ideologies. Across cultural realms-political, literary, philosophical, artistic, musical, architectural, scientific-a remarkable outburst of creativity by a group of first-rate writers, artists, and thinkers reveals the surface refinement and elegance as well as the subterranean turmoil and decay that mark the fin de siècle period. Liberal Arts.
HUM 351 Translation Workshop

1-F\&S
Brief introduction to translation studies, a growing field in today's globalized world. Students reflect on the nature of translation and associated problems. Students must have sufficient command of a language other than English to prepare a 2-5-page translation of a text from that language. Most of the semester is devoted to workshopping these student translations with a concluding reflection paper on the process. Enrollment limit: 12 students. Beneficial for any student wishing to hone language and translation skills, whether for educational or professional purposes. May be repeated multiple times. Liberal Arts.

## HUM 362 Loyalty

3-4 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.
HUM 367 Living Like a Narnian: The Social and Ethical Thought of C. S. Lewis

## 3-4-WSP

In-depth study of the social, ethical, and political thought of C. S. Lewis, one of the $20^{\text {th }}$ century's most influential Christian thinkers. Extensive reading in the works of Lewis, drawn evenly from his fiction and nonfiction writings. Topics include theories of history and the nature of modernity, war and peace, equality, gender and the family, education, political rule, democracy, and technology and scientific progress. Liberal Arts.
HUM 382 Around the World: Reading Across Borders
1-WSP
"Around the World" is a Friday morning breakfast book club focusing on world literature and sponsored by the Center for the Global Humanities. Once a week, fifteen students will meet - together with an online
audience of interested faculty, staff, students, community members, or alumni - to discuss world literature in English translation. Students will read about three books per semester and write a paper on the semester's readings. Liberal Arts.
HUM 395 Special Topics
1, 2, 3, or 4-WSP
Liberal Arts.
HUM 425 The Great Books
1-WSP
The purpose of this seminar is for students to engage classic texts and authors they might otherwise not encounter in their normal coursework; often, the texts chosen are lengthy ones that would otherwise be excerpted or simply skipped in favor of more compact readings. The reading differs each time the course is offered, so it may be taken multiple times. Liberal Arts.
HUM 481 Senior Capstone: Humanities Project
2-F\&S
Students write a 5000-word paper based on a proposal approved by the Humanities chair that builds upon previous major coursework and incorporates at least two humanities disciplines. Papers demonstrate integration of approaches within the humanities and are read by a pair of faculty from different disciplines. Liberal Arts.
IAE 120 Academic English Listening 4

Designed for non-native speakers of English. Focuses on the communicative domain of listening needed for academic success at the college level. First half of the semester. Satisfies Foreign Language. Liberal Arts.
IAE 121 Academic English Reading 4
Designed for non-native speakers of English. Focuses on the communicative domain of reading for academic success at the college
level. First half of the semester. Satisfies Foreign Language. Liberal Arts.

## IAE 122 Academic English Speaking

## 4

Designed for non-native speakers of English. Focuses on the communicative domain of speaking needed for academic success at the college level. Second half of the semester. Satisfies Foreign Language. Liberal Arts.

## IAE 123 Academic English Writing

4
Designed for non-native speakers of English. Focuses on the communicative domain of writing needed for academic success at the college level. Second half of the semester. Satisfies Foreign Language. Liberal Arts.
ID 200 Student Success Seminar (Pass/Fail) (Houghton Online)
1-F\&S, Summer
Adult students learn and apply strategies for success in their return to college and lifelong learning. Major topics include setting academic, career, and personal goals; stress management; time management; critical thinking and problem-solving; learning styles; and best practices. Also introduces students to Houghton College, our online platform, and program policies and procedures.

## IDEV 220 Introduction to Public Health

 3-S22Introduces students to the principles and practices of public health in a global context. The focus of public health is on the prevention of disease, disability, and death among populations in contrast to (but in conjunction with) the biomedical treatment of individuals. Students are introduced to the core disciplines of public health and their application for improving the health of populations. Using a holistic definition of health, students gain an understanding of the determinants of healthy individuals and populations. Students are introduced to key actors in public health and
address public health issues in both high- and low-income countries.
IDEV 312 Field Experience in Development 2-4-F\&S, May, Summer
A cross-cultural experience in an approved setting in the area of International Development. Preliminary studies and research, the dynamics of living and serving, ongoing mentorship, and periodic reflection culminate in an analysis of the development work experienced in relation to its cultural context. The student keeps a journal and writes a summary paper on the experience in the culture. This experience may be linked to formal study-abroad programs, official internship affiliation, or preapproved individual arrangements. Note: Please consult the Department of Religion and Global Service regarding requirements for this course before planning your experience. Liberal Arts. Prerequisite: INCL 310
IDEV 335 NGO Management
3-F20
Introduces students to the principles and practices of designing programs and projects for non-governmental organizations (NGOs) with an emphasis on the international development field. Students learn the components of the project management cycle in an NGO context, are introduced to traditional project-planning tools and tools informed by the evolving fields of adaptive management and complexity science, produce a project proposal for an NGO, and learn the basic language of project planning so that they can be conversational in positions working for or with NGOs.

## IDEV 338 Issues in Development

3-F20
Introduces students to key issues in the development field. Themes such as the environment, global health, conflict, poverty and globalization are examined for insights
into topics including holistic development, asset-based approaches and methods, socioeconomic issues, systems and structures (church, non-governmental organizations, international institutions, and governments), policy development, and monitoring and evaluation. Designed within an international development framework. Examines individual, community, and institutional issues. Fulfills part of General Education Changing World requirement. Liberal Arts.
IDEV 343 Communities, Governance, and Development
4-F20
Attempts to explain the development or underdevelopment of households, communities, and states. At the micro level, examines daily decisions and behaviors of poor households. At the macro level, looks at why some countries attain higher levels of development and others have not. Students are exposed to empirical findings from economics and other disciplines, develop an understanding of contemporary theories to explain development and underdevelopment, study the implications of efforts to reduce global poverty, and identify programs and policies that are more or less likely to be effective. Liberal Arts.
IDEV 389, 489 Intercultural/International Development/Linguistics Internship
1-4-F\&S, May, Summer
A practical internship with an organization or ministry that connects service with an intercultural or multicultural setting. Students demonstrate the integration of learning and service. Possible for intercultural, development, or linguistics credits. By application only. May be repeated. Prerequisite: Intercultural/Field Experience
IDEV 482 Senior Capstone: International Development Seminar
3-F

Students engage in a semester-long research project related to their major. The program faculty team up to guide the students through the research process, presentations, and paper writing. INCL and IDEV majors meet together. Fulfills General Education WritingEnriched course requirement. Liberal Arts.
IDEV 484 Integrative Senior Seminar
4 or 6-F
Senior Seminar for the INCL major and the companion major. In cooperation with the advisor of each major, the student develops one research project that meets the requirements for each major. Fulfills General Education Writing-Enriched course requirement. Liberal Arts.
INCL 195, 295, 395, 495 Special Topics
1, 2, 3, or 4-WSP
Topics offered according to interest and demand. Liberal Arts.

## INCL 201 Introduction to Global Issues

3-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, and religious and ethnic conflict. Students examine responses by global Christians both individually and collectively. This is the entrylevel course for the Intercultural Studies major. Fulfills part of General Education Changing World requirement. Liberal Arts.
INCL 211 Intercultural Transition and Adjustment
1-F
Using the transition model for adjusting to another culture, the student is prepared to move into and adjust to as well as gain a basic understanding of another culture. Crosscultural communication, cross-cultural conflict, and cultural values are examined as
they relate to living and working in another culture. Required for Spanish and French majors (may take INCL 310) and encouraged for any student going on a study-abroad experience. Usually offered as a part of INCL 310 or may be offered by itself in Mayterm. Liberal Arts.
INCL 215 Christian Introduction to Islam 3-F21

An introduction to the beliefs and practices of Islam from a Christian perspective. Selected readings in the Qur'an and Hadith provide a foundation for understanding contemporary Muslims, Islam, and the different challenges that confront Muslims today. Emphasis on how Christians can thoughtfully engage with Islam and their Muslim neighbors.

## INCL 225 Intercultural Communications

3-F21
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. Fulfills part of the General Education Changing World requirement. Liberal Arts.

## INCL 243 Cultural Anthropology

3-F\&S
Cultural and social aspects of human behavior; comparison of cultures. Fulfills half of General Education Social Sciences requirement and half of Changing World requirement. Liberal Arts.
INCL 260 Introduction to Islamic Foundations 4-WSP
Muhammad's life and writings are the foundations of Islam. The Islamic faith is appraised through a historical and primary source approach in which students read the entire Qur'an chronologically and a significant portion of the Hadiths. Students' mastery of Muhammad's life and Quranic vocabulary and a confident grasp of Quranic theology give them a strategic appreciation of Islamic
history and the present global Muslim community issues. Liberal Arts.
INCL 291, 391, 491 Independent Studies
1, 2, 3, or 4-WSP
Liberal Arts.
INCL 310 Intercultural Competencies
3-F
Explores the knowledge, attitudes, and skills for transitioning into, adapting to, and working 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. Fulfills part of General Education Changing World requirement. Required for INCL 311. Liberal Arts. Prerequisite for INCL majors/minors: INCL 201 and ANTH 243, or permission
INCL 311 Intercultural Experience 0-4-F\&S, May, Summer
A cross-cultural experience in an approved setting in an area of service related to the student's concentration or field of interest. Preliminary studies and research, the dynamics of living and serving, ongoing mentorship, and periodic reflection result in completion of a cultural profile, journal, and summary paper on the experience. This experience may be linked to formal studyabroad programs, official internship affiliation, or preapproved individual arrangements. Note: Please consult the Department of Religion and Global Service regarding requirements for this course before planning your experience. Liberal Arts. Prerequisite: INCL 310
INCL 322 History of Islamic Theology and Movements
3-WSP
Following the death of Muhammad, issues of theological orthodoxy and governmental orthopraxy flourished in a context of conflict and growth. Students 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 study the wide history of Islamic thought up to the OPEC crisis of 1973-74. Students gain confidence in grasping and discerning the many variants within the so-called unified Islamic ummah. Liberal Arts.
INCL 341 Biblical Foundations of Global Christian Service

4-WSP
An examination of the biblical foundations of missions based on the concept of missio dei (God's mission). Explores the extensive Old Testament roots and the New Testament development of mission with special relevance to global Christian service in missions and other cross-cultural venues. Issues and theological themes of significance to these areas of Christian service are explored.

## INCL 342 Contextualization in Missions

 4-WSPStudy 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 343 Multicultural Teams and Leadership 3-S21
Students engage with concepts from various disciplines applied to being part of a multicultural team both in the States and internationally. These concepts are framed within the biblical principle of servantleadership. Concepts studied include cultural frameworks and other researched concepts helpful for understanding how to be part of a multicultural team and to understand differences and similarities relating to
leadership across cultures. Fulfills part of General Education Changing World requirement. Liberal Arts.
INCL 347 Development Communication and Grant Writing
4-WSP
Examines the various theories, methods/approaches, and processes used in the development communication field. Case studies drawn from many development themes including global health (HIV/AIDS), agriculture, poverty, and environment. Emphasis and focus on basic principles and values of development communication that challenge the dominant paradigm. Liberal Arts.
INCL 350 Culture Change and Globalization 4-S21

Globalization is spreading rapidly and is causing significant culture change to all societies from traditional to folk to contemporary. Focusing on historical and current case studies, this course makes students aware of current cultural changes and gives them the theoretical knowledge to understand, empathize with, and assist people wrestling with culture change. Pre- or corequisite: Cultural Anthropology. Liberal Arts.

## INCL 361 Engaging the Muslim World

 4-WSPFor over 1,400 years, Islam and Christendom have frequently engaged in rival forms of civilization encounters and/or clashesinvasions, polemics, diplomacy, colonization, dialogue, commerce, and academic research-each according to the context of the era. Relying on comparative, historical, and missiological methodologies, students study the ever-changing yet often-repeated approaches to Muslims in chronological appearance and from various Christian communities-the Oriental, Byzantine Orthodox, Roman Catholic, and Protestant
churches-with special emphasis on the current Evangelical "contextualized" approaches. Students gain strong confidence and learn wise diplomacy in sharing Jesus with Muslims in a wide variety of means. This course has a fee. Fulfills part of General Education Changing World requirement. Liberal Arts. Prerequisite: INCL 260

## INCL 389, 489 Intercultural/International Development/Linguistics Internship

 1-4-WSPA practical internship with an organization or ministry that connects service with an intercultural or multicultural setting. Student is to demonstrate the integration of learning and service. By application only. Can only be done once the Intercultural/Field Experience requirement has been met. May be repeated.

## INCL 440 Unorthodox and Folk Islam

 4-WSPClassical Islam is very resistant to creative theological variants within the Islamic ummah and brands them as deviant heresies. 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. Prerequisite: INCL 260

## INCL 441 Islam in North America

4-WSP
The Islamic movements in North America are unique in being both very recent and limited to African-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 explore the various sociological expressions,
their political aspirations, and their texts. Special attention to various Christian ministries to Muslims in North America. Liberal Arts. Prerequisite: INCL 260
INCL 442 Globalization and Islamization 4-WSP

Among the three most vibrant international movements in the emerging $21^{\text {st }}$ century are Christianity, Islam, and globalization, and the most contested nexus is in the technosecularized cities of the world. Students 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 to recent international clashes between globalized secularism and Muslims, various political and Christian responses, and the need for a Christcentered confident response to both globalization and Islamization. Liberal Arts. Prerequisite: INCL 260
INCL 482 Senior Capstone: Intercultural Seminar
3-F
Students engage in a semester-long research project related to their major. The program faculty team up to guide the students through the research process, presentations, and paper writing. INCL and IDEV majors meet together. Fulfills General Education WritingEnriched course requirement. Liberal Arts.
INCL 496 Honors in Intercultural Studies 4-S
Liberal Arts.
INDS 202 Capstone Experience
1-S, May, Houghton College Buffalo
A one-week Mayterm course that serves as a required capstone experience for the AA degree. Held on the main campus in Allegany County and emphasizes the learning outcomes for the entire program. The discipline and content of the course change every year based on faculty proposals and approval of the Associate Dean of the Faculty.

## INDS 208 Preparing Liberal Arts Students for Careers (P/U)

4-S
Provides an opportunity to learn about the working world and possible career options upon graduation with an AA degree from Houghton College Buffalo.
INDS 321 Honors Seminar 1-F\&S

Topical seminars open to students who have completed one of Houghton's first-year honors curricula and to other students with excellent grades by invitation. Weekly discussion of readings or other primary sources culminating in a substantial paper. Successful completion of three honors seminars is recognized on a student's transcript by the words "Extended Honors Curriculum Completed." Liberal Arts.
INDS 482 Senior Capstone: Interdisciplinary Studies
1-4-WSP
Incorporates both (or all) areas of approved Interdisciplinary Studies major and provides senior capstone experience.
INST 101, 102 Applied Lessons
1,2 or $3-F \& S$
Normal level for introductory private study, non-majors.

## INST 201, 202 Applied Lessons

1, 2 or 3-F\&S
Normal entering level for BA, Composition, Music Education, and BMus with Non-Music Elective Studies majors. Prerequisite: Audition or INST 102 and permission of studio faculty
INST 301, 302 Applied Lessons
1-6-F\&S
Normal entering level for performance majors; intermediate private study for BA, Composition, Music Education, BMus with Non-Music Elective Studies majors, minors, and elective study. Prerequisite: Audition or INST 202

INST 401, 402 Applied Lessons

1-6-F\&S
Advanced private study for BMus majors. Prerequisites: INST 302 and successful Sophomore Review
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 student and faculty leaders. Content focused on the Houghton Reads book (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 $21^{\text {st }}$ century world. Orientation to successfully navigating and utilizing the offices and services of the College. Required for all first-year students; fulfills Transitions requirement.
INTS 104 Transitions for Transfers:
Succeeding at Houghton College 0-F\&S

Half-semester course required for all entering transfer students. Designed to address the unique circumstances, both social and academic, of transfer students, who have already had previous experience with college life. Acquaints new students with life on the Houghton campus, college policies, and available services and resources provided by the College. Topics include academic integrity, career counseling and services, financial literacy, academic records and course selection, graduation requirements, and library resources. Social gatherings and activities are planned to provide opportunities for new students to become acquainted and involved in campus life.

## INTS 150 Science Honors Seminar

3-F
Introductory overview of the topic for Science Honors, which focuses on a scientific question of societal importance. Reserved for first-year Science Honors students. Liberal Arts.

## INTS 154 Science Honors I

## 3-S

Insights drawn from the disciplines of biology, chemistry, physics, writing, and communication are applied to understanding and communicating about a scientific question of societal importance and working toward solutions. 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 solutions. Reserved for first-year Science Honors students. INTS 154 taken concurrently with INTS 157. Together with INTS 155, fulfills General Education Natural Sciences requirement. Liberal Arts. This course has a fee.

## INTS 155 Science Honors II

## 4-M

Insights drawn from the disciplines of biology, chemistry, physics, writing, and communication are applied to understanding and communicating about a scientific question of societal importance and working toward solutions. 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 solutions. Reserved for first-year Science Honors students. Together with INTS 154, fulfills General Education Natural Sciences requirement. Liberal Arts. This course has a fee. Prerequisites: MATH 181 (or MATH 170/171 or 161), INTS 154

INTS 157 Science Honors: Writing and Communication II

2-S

Writing component of INTS 154. Reserved for first-year Science Honors students. Taken concurrently with INTS 154. Fulfills General Education WRIT 101 requirement. Liberal Arts. Prerequisite: INTS 150
INTS 167 Imagining Wholeness: Psychology and Literature
4-F20
Examines descriptions of the fragmentation of modern and postmodern life in psychology and literature along with prescriptions for restoring wholeness, order, and meaning. Connections to art, religion, and drama include a visit to New York City. Lectures combine with seminar discussion and smallgroup tutorials. Liberal Arts.
INTS 170 London Honors Proseminar 3-F

Preparation for the honors semester in London. Establishes ancient and medieval background for the era to be studied in London (1450-present) through exposure to classic texts and artifacts. Pass/Fail. Liberal Arts.

## INTS 171 Honors in London

16-S22
An interdisciplinary examination of the development of Western modernity from 1450 forward with some attention to West/non-West interactions, enriched by the resources of London. In combination with INTS 170 (London Honors Proseminar), fulfills General Education requirements: THEL 209, Writing-Enriched course, Humanities, half of the Social Sciences requirement, Art \& Music, and half of the Changing World requirement. Liberal Arts.

INTS 203 Literature and Wisdom
6-F/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. Liberal Arts.
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 develop interpretive, recreational, meditative, exercise, or other trails to complement their major program or General Education. One hour of lecture; three, four and a half, or six hours of applied (depending on credit hours chosen: three applied hours for 2 credits, four and a half for 3 credits, and six for 4 credits). Applied hours include research and preparation of interpretive presentations as well as trail development, as appropriate.

## INTS 275 Engaging Urban Culture

 1-F\&SStudents explore some aspects of urban culture. Meetings are held every other week in a setting outside of the classroom. Provides academic structure for engagement that helps students experience, explore, and understand the complex diversity of Buffalo and fosters reflection on our place in a diverse world. Events are 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.

## LATN 101 Beginning Latin 1

3-Online-WSP
Elements of the Latin language, including some basic forms, syntax, and vocabulary. Emphasis on elements of Latin that are relevant to contemporary culture. Liberal Arts.
LEDU 500 Foundations of Language and Literacy for Diverse Learners

## 3-F

Examines the nature of students' diverse language and literacy learning and the assessment and instruction of English language arts in inclusive classrooms. Considers the means of developing a learning environment that nurtures the language learning of all students with emphasis on students from diverse cultures as well as those with learning differences and/or learning English as a new language. Teachers are expected to establish a research-focused lens as they engage in reviewing current literacy research and complete a case study on an exceptional learner. Fieldwork required weekly or according to a schedule established by the instructor.

## LEDU 506 Early Childhood Education: Language and Literacy Development

3-Summer 22
Focuses on research-based principles and practices for language and literacy development of children birth to second grade $(B-2)$. Emphasis on understanding the processes by which young children learn spoken and written language and designing appropriate learning experiences to support the development of language and literacy in young children. According to New York State teacher certification requirements (8/2015), graduates granted an Initial Teaching Certificate from New York State who complete 6 credits of early childhood coursework with a C or better may be able to extend their teaching certificate to include B-2 through the Individual Evaluation for Additional Classroom Teaching Certificate pathway. Restricted to Houghton College Inclusive Childhood Education majors who have completed juniorlevel coursework, Inclusive Childhood Education graduates and matriculated students in the Houghton graduate literacy program. Any other enrollees must receive
permission from the instructor. Required for B-6 and B-12 certificates.
LEDU 507 Early Childhood Education: Developmentally Responsive Instruction Across the Curriculum
3-Summer 22
Examines the cognitive and social development of children B-2 and explores a range of developmentally responsive pedagogies that help young children to grow, learn and develop through meaningful, integrated, interdisciplinary learning experiences. Intended for Education major juniors, seniors, and postgrads. According to New York State teacher certification requirements (8/2015), graduates granted an Initial Teaching Certificate from New York State who complete 6 credits of early childhood coursework with a C or better may be able to extend their teaching certificate to include B-2 through the Individual Evaluation for Additional Classroom Teaching Certificate pathway. Restricted to Houghton College Education majors who have completed juniorlevel coursework in the major and graduates of Houghton's Education program. Any other enrollees must receive permission from the instructor. Required for $\mathrm{B}-6$ and $\mathrm{B}-12$ certificates.
LEDU 510 Multiple Literacies Across the Content Areas
3-S
Immerses B-12 teachers in reading, writing, listening, and speaking across the content areas using multiple literacies. Grounded in multimodality, semiotics, and new literacy theories, teachers wrestle with purposeful uses of technology that empowers motivating and creative literacy teaching and learning across the content areas ( $B-12$ ). Discusses the concept of text broadly with attention to multimodal texts, multicultural literature, and popular media. Explores planning for literacy integration across content areas for B-12
inclusive learning contexts. Attends to developmentally appropriate instructional methods, standards, assessments, and reflection.

## LEDU 512 Culturally Responsive and Dialogic

 Pedagogy3-F
Critically examines current research and theory that afford understanding and responsiveness to students' cultural and learning differences. Considers students' sociocultural, cognitive, and motivational influences on literacy acquisition and learning. Explores culture, discourse, narrative, and power in diverse B-12 educational contexts. Investigates the power afforded to students and teachers alike when they are positioned as meaning-makers and participants in their learning. Both in- and out-of-class activities are designed to provide students with authentic occasions to apply their theoretical learning and develop their professional learning network. Fieldwork required weekly or according to a schedule established by the instructor.
LEDU 514 Foundations of Learning Theory \& Inquiry
3-S
Explores learning and teaching as active, social, and interactive processes. Considers inclusive application of historical and current research and theory around inquiry-based learning and teaching. Engages teachers to further develop their own questions that will facilitate their ongoing inquiry about the content and processes they teach, the methods they use, and the transactions that occur as they teach and learn from their diverse B-12 students. Both in- and out-ofclass activities are designed to provide students with authentic occasions to apply their theoretical learning and develop their professional learning network. Fieldwork
required weekly or according to a schedule established by the instructor.
LEDU 516 Collaboration \& Communication Across Diverse Learning Contexts
3-F
Reviews major theories that help explain human communication behavior and considers the applications of these theories in daily interactions in B-12 educational contexts. Explores effective practices for designing sustainable co-teaching and collaborative partnerships across the diverse learning contexts in today's B-12 classrooms. Immerses candidates in working together across grade levels as well as content areas to support diverse learners through collaborative planning, differentiated instruction, and assessment practices as well as mindful classroom management. Both in- and out-ofclass activities are designed to provide students with authentic occasions to apply their theoretical learning and develop their professional learning network. Requires two synchronous meetings. Fieldwork required weekly or according to a schedule established by the instructor.

## LEDU 518 Rural Literacies: Empowering Rural Voices

3-S
Extends the current understandings of rurality while examining theory, pedagogy, and practices specific to multiple rural contexts. Investigates the impact of rural contexts' diverse geography and sociocultural and socioeconomic norms on rural schools and communities. Considers how rural educators (B-12) can work against marginalizing discourses around rural ways of living while communicating to rural students the value of their roots, which are part of their identity. Explores place-based pedagogy while engaging in dialogue with the views and voices of rural schools and communities.

LEDU 520 Educational Research 1: Teachers as Researchers
3-F
Introduces qualitative research methods in the field of education. Examines the conceptual roots, assumptions, and methodologies of qualitative research both by itself and in relation to quantitative approaches. Locates our work in B-12 educational settings, which will provide teachers with authentic approaches to integrate research into their everyday practices. Immerses teachers as researchers in their classrooms. Semester-long research project will be the grounding assignment that parallels and applies class readings and discussions. Both in- and out-of-class activities are designed to provide students with authentic occasions to apply their theoretical learning and develop their professional learning network. Fieldwork required weekly or according to a schedule established by the instructor.
LEDU 524 Educational Research 2: Cultivating \& Sustaining Professional Communities of Practice
3-S
Prepares B-12 literacy specialists to manage the multifaceted responsibilities they carry as coaches for teachers in their ongoing professional development and to use data to inform their planning and implementation of school-wide appropriate faculty-development activities. Examines various possibilities for collaboration with students, parents, and other educators in the organization, development, implementation, and improvement of literacy curricula that are responsive to students' diverse needs. Examines organizational and administrative issues at various levels (e.g., societal and federal, district, school and classroom). Considers how cultivating and sustaining professional communities of practice in and
across the diverse teaching contexts in the U.S. can do all of this and more. Semester-long research project will be the grounding assignment that parallels and applies class readings and discussions. Both in- and out-ofclass activities are designed to provide students with authentic occasions to apply their theoretical learning and develop their professional learning network. Fieldwork required weekly or according to a schedule established by the instructor. Prerequisite: LEDU 520. Corequisite: LEDU 522 or 526.
LEDU 522 Literacy Specialist Internship: Secondary (5-12)
3-F/S
Immerses candidates in working with diverse learners (5-12) who need support in their language and literacy development and learning for at least 100 hours. Includes opportunities to explore and refine skills needed in the different roles and responsibilities as literacy specialists. Requires self-reflection and provides opportunities for feedback from peers and college mentors. Should be taken in the semesters immediately preceding EDUC 550. Corequisite: LEDU 520 or 524.

LEDU 526 Literacy Specialist Internship: Elementary (B-6)
3-F/S
Immerses candidates in working with diverse learners ( $B-6$ ) who need support in their language and literacy development and learning for at least 100 hours. Includes opportunities to explore and refine skills needed in the different roles and responsibilities as literacy specialists. Requires self-reflection and provides opportunities for feedback from peers and college mentors. Should be taken in the semesters immediately preceding EDUC 550. Corequisite: LEDU 520 or 524.

LEDU 550 Capstone Seminar: Critical Reflective Literacy Pedagogy

## 3-Summer

Further expands teachers' knowledge of seminal studies in the area of literacy research, both qualitative and quantitative. Examines current trends and issues in literacy education. Facilitates teachers' interpretations and evaluations of research as critical and knowledgeable readers. Immerses teachers in the processes needed for writing and re-presenting their findings from their action research project. Culminates in presentation and publication of research thesis. Three (one/month) synchronous meetings required.

## LING 101 Arabic Language

4-WSP
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 in the academic and intellectual community. While not the "street language" of any particular country, MSA provides an excellent grounding towards fluency in any dialect in the Arab world. Those wishing to go further will be directed to an intensive Arabic program within the Arab world. Liberal Arts.
LING 106 Introductory Swahili
0 or 2-S
Prepares students with basic Swahili skills (survival mode). Introduces basic grammar, vocabulary, and conversational skills as used in East Africa. Focus is on hearing and speaking. Does not meet a General Education requirement. Houghton East Africa. Liberal Arts credit.

## LING 156 Conversational Swahili

4-S
Prepares students with general conversational skills. Vocabulary limited to words commonly used in rural village life in East Africa. Focus on hearing and speaking Kiswahili. Meets one General Education Changing World

Requirement. Houghton East Africa. Liberal Arts.

## LING 220 Introduction to Linguistics

3-F20
An introduction to the basic subfields of linguistics. Emphasis on phonetics and phonology (the study of sounds and systems of sounds), morphology (the study of word formation), syntax (phrase and sentence formation and function), semantics (the study of meaning in language), pragmatics (how language is used in wider contexts), and historical linguistics (how language changes over time). Fulfills part of General Education Changing World requirement. Liberal Arts.
LING 291, 292, 391, 392, 491, 492 Independent Study
$1,2,3$, or 4-WSP
Liberal Arts.

## LING 295, 395, 495 Special Topics

$1,2,3$, or 4-WSP
Takes advantage of faculty expertise to focus on advanced linguistic topics of interest to the student body. Can include Conversational Language Learning and Analytical Methods, The Structure of African Languages, and others. Liberal Arts. Prerequisite: to be determined at the time of offering

## LING 312 Sociolinguistics

3-WSP
Explores the sociology of language, focusing on language use patterns in multilingual societies worldwide: language maintenance and death; language attitudes; internal and external language change; development of pidgins and creoles; endangered languages; and language documentation, development and revitalization. Fulfills part of General Education Changing World requirement. Liberal Arts.

## LING 322 Phonetics

3-F21
Introduction to the theory and practice of articulatory phonetics. Students learn to
produce, perceive, and transcribe with symbols all sounds known to be used in human language; intensive drill in definition, recognition, production, and transcription of the full range of sounds used in human speech. Liberal Arts.
LING 323 Phonology I
3-WSP
Explores sound systems of the world's languages with a focus on identifying and analyzing phenomena including consonants, vowels, syllables, tone, intonation, stress, length of consonants and vowels, organization of sound systems, and how sounds affect one another. Examination includes detailed discussion of discovery procedures and theoretical perspectives, which provide an analytical framework. Liberal Arts. Pre/Corequisite: LING 322 or permission
LING 333 Grammar I
3-WSP
Explores grammar in the world's languages from a functional and typological theoretical perspective, focusing on techniques for identifying, understanding and analyzing the variety of grammatical patterns attested throughout the world. Provides a solid grounding in major issues of syntactic theory concerning linguists today. Liberal Arts.
LING 350 First and Second Language Acquisition
3-WSP
Explores linguistic, psychological, and sociocultural contexts of language acquisition as well as implications for both formal and informal language teaching and learning. In addition to course readings and class discussions, students examine areas of language acquisition theory through their own research and writing. Liberal Arts.
LING 351 Linguistics for TESOL (Teaching English to Speakers of Other Languages)
3-F20

Examines some of the unique challenges facing English language learners through exploration of English phonetic, phonological, morphological, syntactic, semantic, and pragmatic phenomena. Includes transfer problems between other languages and English and implications for teaching English in multiple contexts. Prerequisite: LING 220
LING 370 Understanding English Grammar 3-WSP
Explores English grammar from a linguistic perspective, utilizing a functional and typological theoretical framework. Students examine the historical development of English, morphology, lexicon, and the ways in which words and morphemes can be combined into phrases, clauses, sentences, and larger units. Students analyze English data to better understand why speakers of English speak the ways they do. Provides a basic overview of syntactic theory and major issues in modern linguistics. Liberal Arts. Prerequisite: LING 220 or permission

## LING 371 TESOL Methods: ELA

3-WSP
Examines the language, reading, and writing development of English language learners. Explores assessment and instructional methods of teaching English Language Arts to speakers of languages other than English. 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
LING 373 TESOL Field Experience
1-2-WSP
Taken concurrently with TESOL Methods: ELA, this weekly practicum provides experience working in both formal and informal settings with learners of English as a second language. Allows students completing the Intercultural Studies TESOL concentration or TESOL minor to gain guided experience in putting their
learning into practice. Prerequisites: LING 220, 351 and 350 or permission

## LING 389, 489 Intercultural/International Development/Linguistics Internship

1-4-F\&S, May, Summer
A practical internship with an organization or ministry that connects service with an intercultural or multicultural setting. Student is to demonstrate the integration of learning and service. Possible for intercultural, development or linguistics credits. By application only. Can only be done once the Intercultural/Field Experience requirement has been met. May be repeated.

## MATH 170 Calculus I with Precalculus A

4-F21
Together with MATH 171 Calculus I with Precalculus B, covers all the material of MATH 181 Calculus I with integrated treatment of precalculus topics. Expected calculus topics include limits, continuity, and the Intermediate Value Theorem; the theory and computation of derivatives of algebraic and trigonometric functions; and applications of differentiation including tangent lines and related rates. Precalculus topics to support these are addressed as needed. Students who received an SAT Math score of 550 or lower or equivalent who need to take Calculus I must complete this course and MATH 171. Enrollment by permission only. Fulfills General Education Mathematics requirement. Liberal Arts.
MATH 171 Calculus I with Precalculus B
4-S22
Together with MATH 170 Calculus I with Precalculus $A$, this course covers all the material of MATH 181 Calculus I with integrated treatment of precalculus topics. Expected calculus topics include applications of derivatives including optimization, curvesketching, and the Mean Value Theorem; introduction to integration, including the Fundamental Theorem of Calculus,
computation of areas, and the technique of substitution; and calculus of transcendental functions. Precalculus topics to support these will be addressed as needed. Students who complete this course with a C have fulfilled the prerequisite for Calculus II. Fulfills General Education Mathematics requirement. Liberal Arts. Prerequisite: MATH 170.

## MATH 181 Calculus I

4-F21
First semester of single-variable calculus including limits, continuity, and the Intermediate Value Theorem; theory and computation of derivatives of algebraic, trigonometric, and transcendental functions; applications of derivatives including optimization, curve-sketching, related rates, and the Mean Value Theorem; and an introduction to integration, including the Fundamental Theorem of Calculus, computation of areas, and the technique of substitution. Students who have completed MATH 171 cannot take this course. Fulfills General Education Mathematics requirement. Liberal Arts. Prerequisite: SAT Math score higher than 550 or equivalent or permission.

## MATH 182 Calculus II

## 4-F\&S

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; and sequences and series. Fulfills General Education Mathematics requirement. Liberal Arts. Prerequisite: MATH 181 (or MATH 170/171).

## MATH 210 Introduction to Proofs

2-F
Introduces the central idea of proof in mathematics and some standard proof
formats used throughout the Math major. Includes propositional logic, an introduction to predicate logic, direct proof, proof by contradiction, and mathematical induction. Fulfills General Education Mathematics requirement. Liberal Arts. Prerequisite: MATH 181 (or MATH 170/171).

## MATH 214 Discrete Mathematics

2-F21
Introduction to discrete mathematical topics: equivalence relations, partial orders, functions, recurrence relations, counting, introduction to probability, graphs, and introduction to algorithm analysis. Liberal Arts. Prerequisite: MATH 210
MATH 225 Multivariate Calculus 4-F21
Space geometry, vectors, vector functions, functions of several variables, partial differentiation, and multiple integration. Liberal Arts. Prerequisite: MATH 182

## MATH 241 Differential Equations

4-S22
Methods of solution and applications of principle types of differential equations. Liberal Arts. Prerequisite: MATH 182

## MATH 261 Linear Algebra

4-S
Systems of linear equations, matrices, vector spaces, linear transformations, inner product spaces, determinants, eigenvectors, and eigenvalues. Fulfills General Education Mathematics requirement. Liberal Arts. Prerequisite: MATH 181 (or MATH 170/171 or 161)

MATH 295, 296, 395, 396, 495 Special Topics in Mathematics
1, 2, 3, or 4-WSP
Previous topics include graph theory, knot theory, number theory, and Linear Algebra II. Prerequisites may apply. Liberal Arts.
MATH 325 Real Analysis I
4-S21

Develops a rigorous foundation for the fundamental topics covered in calculus: sequences and series, continuity, differentiability, integrability, and convergence based on limits and the axioms of the real number system. Liberal Arts. Prerequisites: MATH 182, 210, 261
MATH 333 Probability and Statistics I 4-WSP
Introduces 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, also covers some of the main topics of mathematical statistics, including statistical hypothesis testing, errors, correlation, regression equations, and analysis of variance. Liberal Arts. Prerequisite: MATH 182.

## MATH 351 Modern Geometries

4-WSP
A survey of geometry including advanced Euclidean geometry and an introduction to non-Euclidean geometries. Liberal Arts. Prerequisite: MATH 210

## MATH 361 Abstract Algebra I

## 4-F21

An introduction to groups, subgroups, homomorphisms and isomorphisms, rings, fields, and ideals with a focus on developing skills in problem solving, communicating mathematics, and proof writing. Liberal Arts. Prerequisites: MATH 210, 261.

## MATH $\mathbf{3 8 0}$ Mathematics Research Seminar

## 1-S

Introduces students to the experience of mathematics research. Each student is part of a team working with a faculty member on an open problem. May be repeated multiple times for credit. Liberal Arts. Prerequisite: MATH 210
MATH 391, 392, 491, 492 Independent Study

1, 2, 3, or 4-WSP
Prerequisites may apply. Liberal Arts.
MATH 393 Summer Collaborative Research in Mathematics
1, 2, 3, or 4-WSP
Summer research in collaboration with a mathematics faculty member, focusing on a current area of mathematical research. Liberal Arts. Prerequisite: according to the chosen area of research

## MATH 425 Real Analysis II

2-4-WSP
Covers selected topics from real and functional analysis, building on the foundation from Real Analysis I. Liberal Arts. Prerequisite: MATH 325
MATH 433 Probability and Statistics II
2-4-WSP
Covers topics selected from parametric and nonparametric hypothesis testing, ANOVA, partial and multiple correlation methods, regression, curve fitting, and Monte Carlo simulation. Liberal Arts. Prerequisite: MATH 333
MATH 452 Point Set Topology
4-WSP
Open and closed sets. Connected, compact, and metric topological spaces. Liberal Arts. Prerequisites: MATH 210, 261

## MATH 461 Abstract Algebra II

2-4-WSP
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. Liberal Arts. Prerequisite: MATH 361
MATH 471 Complex Analysis
4-WSP
Complex number system, limits, differentiation and integration in the complex plane, and complex series. Liberal Arts. Prerequisites: MATH 225, 325 or permission

## MATH 482 Senior Capstone: Mathematics Seminar

2-S
A capstone course that further develops problem-solving and mathematical communication skills. Emphases on formulating, solving, and explaining challenging problems in both verbal and written form to varied audiences. Considers the relationship of mathematics to various other disciplines, the historical development of mathematics, and the relationships between mathematics and the Christian faith. For seniors, except by permission. Liberal Arts. Fulfills General Education Writing-Enriched course requirement.
MATH 496 Honors in Mathematics 4-WSP
Liberal Arts.

## MBA 501 The MBA Connection Workshop

 1-FServes as the entry point for new students in the MBA program. Designed to onboard students during a four-day residency, introducing them to the scope of the program, its integrated design, and learning objectives. Students engage in exercises that build selfknowledge and emotional intelligence and create a learning community. This will equip them for success with graduate-level work and course team assignments.
MBA 509 Data Analysis for Decision Making 3-
Examines and applies mathematical and statistical methods to improve data literacy and develop tools to improve management decision-making. Familiarizes students with the assumptions underlying various statistical techniques and assists in identifying their appropriateness in a variety of situations. Students perform statistical analysis and interpret results that contribute to information-based decision-making. Students may choose to waive this course and substitute
an elective if they have earned a B-or better in at least two of the following undergrad/graduate-level courses: statistics (level 200+), data science (level 200+), calculus or a 200+-level college math course. Prerequisite: MBA 501
MBA 511 Political, Regulatory, and Legal Responsibilities
3-S
Examines the impact of diverse political and social forces on business and the law. Students explore the historical, cultural, political, philosophical, and religious foundations of legal and social systems as they relate to the ethical and profit dimensions of the economic complex. Critical thinking, persuasive speaking and writing skills are honed through analysis of the above in relation to policy and implementation procedures in international and domestic markets. Students may choose to waive this course and substitute an elective if they have earned a B-or better in at least two of the following undergrad/graduate-level courses: Business Law I and/or II, Employment Law. Prerequisites: MBA 501, MBA 630
MBA 514 Leading for Higher Performance
3-S
Focused on improving leader efficacy in developing peak organizational and people performance. Performance contributors and/or detractors is studied from a biblical perceptive as students examine how recent trends in workplace "advances," scientific findings, and human resource best practices confirm and/or conflict with God's design of humankind. Prerequisites: MBA 501, 630
MBA 518 Accounting Information and Financial Control
3-Summer
Prepares students to effectively extract and utilize information in financial statements. The relation between financial statement representation and underlying business activities is emphasized. Specific topics to be
addressed include revenue recognition practices; obligation measurement; and the impact of organizational form on accounting measures of performance, digital platforms, and GAAP. Students may choose to waive this course and substitute an elective if they have earned a B- or better in at least two of the following undergrad/graduate-level courses: Financial Accounting, Managerial Accounting, and Cost Accounting. Prerequisites: MBA 501, 630

## MBA 525 Project Management

3-Summer
An introduction to the role of project management within a cross-section of organizations and project types. Topics include project definition, planning, scheduling, lifecycles, project attribute estimation, resource allocation, scope creep, and project portfolio evaluation and selection. Management issues related to project manager selection, subcontracting, team dynamics, and project monitoring and control are explored as essential elements of a successful project. Opportunities to research and evaluate the landscape of digital tools for project management and leverage real-world tools in the scope and sequence of learning. Prerequisites: MBA 501, 630
MBA 526 Risk Management and Governance 3-S
Considers how organizations assess and manage risks in external and internal environments and adapt daily operations and long-term plans to minimize unexpected losses. Students learn how to identify and categorize risks, how to develop and prioritize responses to risks, how risk affects strategic planning and daily operations, and how insurance and other tactics and strategies mitigate risks. Enterprise risk management, governance and contingency planning are considered for the entire organization, including accounting and finance, sales and
marketing, human resources, and information technology. Prerequisites: MBA 501, 630
MBA 528 Financial Statement Analysis
3-Summer
Focuses on the mechanics of financial statement analysis from various perspectives, including shareholders, financial analysts, boards of directors, investors, and business mergers and acquisitions. Topics covered are balance sheet and income statement analysis, ratio analysis, cash flow analysis, common size analysis, trend analysis, and earning analysis. Students analyze and evaluate free cash flow generation, profitability, operating efficiency, and the impact of leverage on business risk and return on equity. Students integrate a biblical and ethical framework that helps guide assure objective, i.e., bias-free analysis. Prerequisites: MBA 501, 630, Financial Accounting, Managerial Accounting, Corporate Finance, and one upper-level accounting course
MBA 530 Enterprise Process Management 3-S
Explores the critical nature of processes and provides insight into how the most successful companies organize complex systems to deliver consistent and excellent products and services. Includes the basics of forecasting, capacity planning, scheduling, inventory management, total quality management and supply chain management, and how these span business functions of finance, sales marketing and product identity. The intersection of teams and cross-functional connections are explored. Prerequisites: MBA 501, 630
MBA 532 Applied Managerial Finance
3-Summer
Emphasizes the decision-making and discipline of financial management. Subjects include financial reports and metrics, financial analysis and planning, financial forecasting, financial markets, financial leverage, working capital
management, capital budgeting processes, cost of capital, and the evaluation of domestic and global merger and acquisition opportunities, including takeover and antitrust strategies. Students integrate a biblical and ethical framework that helps guide financial management decision-making. Students may choose to waive this course and substitute an elective if they have earned $a B$ or better in at least two of the following undergrad/graduate-level courses: Corporate Finance I/II; Investment Management; or Money, Banking and Finance. Prerequisites: MBA 501, 630
MBA 611 Integrated Marketing Communication
3-F
Helps students understand the evolution of marketing communication as it becomes a functionally widened and linked activity. Students learn where each distinct communication function has resided and how they are forming a new entity called Integrated Marketing Communication (IMC). IMC involves the measured blending of disparate activities such as messaging, branding, advertising, public relations, sales promotion, events, and sales training into a tightly coordinated activity that provides maximum persuasive impact within targeted markets. Teamwork among the various individual organizations is essential to the success of IMC. Prerequisites: MBA 501, 630
MBA 616 Entrepreneurship and the Lean Startup
3-Summer
Students learn the "thinking and doing" of successful entrepreneurs. This multidimensional course is intended for those inclined toward becoming entrepreneurs, needing to implement entrepreneurial and lean startup principles in their organizations, or desiring to learn how to effectively work with an entrepreneur. Entrepreneurship is
explored from the biblical perspective of creativity and the productive process of innovation. Topics include deframing, metaphors, dialectical inquiry, path creation, and bisociation. Students learn how to turn an innovative idea into a plan of action using lean startup strategy. Additionally, students consider the entrepreneur's role in managing and mitigating the uncertainty of risk. Prerequisites: MBA 501, 630
MBA 618 Design-Thinking and Innovation 3-S
Emphasizes the connection between designthinking and innovation. Students learn the process of design-thinking, which begins with a genuine interest in understanding the people for whom products and/or services are being designed. Study and practice of this process help improve student ability to ask questions, challenge assumptions, redefine problems and create change-all important aspects for developing strategic options and solutions not immediately identified through left-brain thinking and problem-solving approaches. Considers the opportunities and challenges of design-thinking and innovation within varied organizational contexts and how they relate to differing services and product lines. Prerequisites: MBA 501, 630
MBA 620 Transformational Leadership 3-Fall
Provides a biblical perspective of transformational leadership, focusing on two key components: that transformation is missional and intentional. Students examine how to navigate the current societal and organizational landscape in a faithful and integrated manner by considering transformation first on a personal level, then organizational. Includes a variety of resources, assessments, and coaching exercises. Prerequisites: MBA 501, 630
MBA 622 Price, Profit, and Free Enterprise in a Global Economy

3-Fall
Examines domestic and global production and distribution of goods and services as guided by the free-market economy. Takes the perspective of the economist as advisor to managers and directors of a firm operating in an external economic environment and making operational and strategic decisions for the firm. With an understanding of supply, demand, and consumer behavior as a background, the course studies how firms remain competitive through the improvement of strategic thinking about competition in the market and efficient organizational structure and decision-making, especially involving allocating resources, managing production, and earning a profit under changing economic conditions. Prerequisite: MBA 501; corequisite: MBA 630
MBA 624 Ethics, Morality, and Social Responsibility
3-Summer
Provides a biblical perspective on ethics, morality, and social responsibility in relationship to individual leaders, organizations, the community, and global society. The interrelated nature of ethics, morality, and social issues is reviewed along with how societal views and actions influence and impact organizational performance. Emphasis on the decision-making responsibility of Christian leaders related to these topics that influence and shape organizational culture, policy, practice, and people. Prerequisites: MBA 501, 630
MBA 630 Strategic Thinking and Plan Management
3-Fall
MBA entry course examining the running of an enterprise from the Chief Executive Officer's point of view. Designed to help students develop their strategic thinking ability and learn methods for effective strategic planning. Students learn about framing theoretical and
practical training to understand business practices and enhance organizational efficiency and effectiveness. Includes conducting external and internal assessments of an organization, identifying key strategic issues, identifying and choosing alternative strategies, and defending those decisions. Provides the framework for the final MBA integrated project, MBA 651 Integrated Project. Gives students the instruction and tools helpful for integrating individual MBA course learning into their final MBA project and presentation. Prerequisite: MBA 501

## MBA 651 Integrated Project

1-Fall
Final course in the MBA program including a four-day residency. Students finalize a detailed personal plan focused on an existing company project, new business venture, creation of a new product or service, organizational process improvement, cultural change, or restructure of their current workplace department/organization. Students present their integrated project and observe and interact with peer presentations during the residency. The project focus must meet established guidelines and be preapproved by the MBA Director. Prerequisite: Successful completion of 37 or more credits of approved MBA required and elective courses
MBCM 121 Music Technology Basics
1-F
Musicians should be prepared for any situation. One situation a musician may face is the need to work with live sound technology. This course introduces the fundamentals of music technology geared towards the needs of today's professional musicians. The most significant challenge musicians face today is the need to be able to master skills required to adapt to a changing technology base. Students will demonstrate a better understanding of music technology basics regarding hardware
and software for live audio, acoustic and digital audio, sound reinforcement, sequencing, and notation. This course enables students to make intelligent decisions while using fundamental tools and techniques through demonstrations, real-world examples, and hands-on events.
MBCM 201 Intro to Music Technology and Recording Arts
3-F
Introductory survey of the history and theoretical foundations of music technology and recording arts. Topics include acoustics, audio principles, Digital Audio Workstation basics, recording technologies, studio basics, fundamentals of computers for audio, MIDI basics, and audio software/technology troubleshooting. Students are given a basic overview of each studied area and will be able to perform rudimentary operations in each skill area.

## MBCM 206 Introduction to Music Business

## 3-S

An introductory overview of the recording and music industry and the operations of its various segments. Students gain an understanding of where monies are generated, how to protect their interests, who key players are in the business, how deals are made and broken, and how new developments in digital technology are changing the way music is marketed, promoted, distributed, and heard. Presents students with the career opportunities available within the industry and the knowledge needed to succeed in this business. MBCM 210 Introduction to Lighting and Design
3-WSP
Covers techniques of designing lighting for various stage forms, creative planning and projection of designs for specific productions. Students learn the fundamentals of seeing differently in lighting design, exploring the
mind's eye and learning how to "paint" with light. Students also translate theatrical and musical moments into lighting sketches, storyboards, and atmospheres; learn transitioning from one atmosphere to another; and develop points of view and approaches. Covers fundamentals of the tools of the lighting designer, preparation for theater, production techniques, concert techniques, and assistant skills.
MBCM 212 Introduction to Live Sound and Recording
3-F
Explores artistic, musical, acoustic, and technical aspects of live performance to learn to present the best possible sound within concert, corporate, and worship venues. Students study, evaluate, and compare different live and studio recordings to establish a point of reference for mix choices. Emphasizes instrumental sounds, vocal tonality, and clarity within a mix; microphones and correct usage; equalization; time-based effects; and dynamics processing. These tools are presented placing high value on the creative and technical influences they impose on the individual sounds as well as the control and mix creativity they offer for multiple sounds, channels, and recorded tracks.
MBCM 215 Introduction to Music Publishing and Marketing
3-TBD
Teaches students how to set up an independent publishing company, including administration of copyrights, the role of performance rights organizations (BMI, ASCAP, SESAC), and preparing a functioning system for song catalogs. Students develop a publicity plan, submit songs to register with the copyright office, learn how to market and promote compositions and writers through developing effective pitch and promotion strategies, and discover how to turn demos
and lyrics into a functioning independent publishing and marketing business.

## MBCM 220 Music Industry Seminar

2-TBD
Seminar course focusing on the concepts, terminology, and methodology of the music industry's inner workings by engaging students in open discussion with music industry professionals across all areas within the field.

## MBCM 225 Survey of the Music Industry

3-TBD
A survey of the development of the music and recording industry in America, including the history of recording, establishment of the major labels, and the inner workings of the industry that drives the music business. Students also explore diverse music industry career paths in areas such as arts management, music products and merchandizing, public relations, music production and recording, publishing, and online music distribution.

## MBCM 307 Advanced Music Production

3-F20
In-depth look at concepts that explore the technical aspects and aesthetic implications of digital audio software, theory, and practice with expounding on advanced sound recording techniques. Students gain deeper insight on music composition and performance utilizing MIDI, hardware \& software-based synthesis, effects plug-ins and audio sampling through creation and production with the utilization of a variety of recording/microphone techniques and computing tools including Pro Tools, and other Digital Audio Workstations.

## MBCM 315 Music Production Analysis

## 3-WSP

Distills decades of experience from recording producers into a focused step-by-step approach to the essential elements of successful records. Examines the emotional
aspect of music and how that incorporates into memorable musical experiences. The genres and the message and lyrics may change, but the actual craft of making a great record remains the same. Develops listening skills and teaches how producers with 30 years of experience listen to music differently than developing producers.

## MBCM 320 Artist Management and Development

3-TBD
Allows students to explore the role and importance of artist managers, what they do, and how they impact the careers of artists and their brands. Covers why an artist needs a manager, the keys to finding the right artist(s), and the key roles the manager as developer plays in an artist's career. Also explores a typical management contract and develops artist career planning, money management, and what to do when things go wrong. Students examine the principles of leadership dynamics and motivation in order to focus and empower current and potential managers.
MBCM 331 Legal Issues in the Music Industry 3-F21
In-depth examination of copyright law and agreements basic to the music industry. Agreements to be reviewed include major label record contracts, independent label record contracts, management agreements, sampling licenses, and music publishing agreements. Prerequisite: MBCM 206 and MBCM 225.
MBCM 408 Critical Listening and the Art of Mixing
3-WSP
Provides recording musicians, producers, and engineers with a better sense of the mixing process and explores the creative and technical considerations necessary to mix in today's music production environment. Students develop their ability to hear and identify the key features of a well-balanced
and professional mix. Explores musical width and depth, EQ and frequency range, dynamics, panning, reverb, delay, compression, phasing, distortions, dynamic processing, automation techniques, and different mix approaches.
MBCM 409 Sound Design \& Processing for TV, Film, Video Games
3-WSP
Interdisciplinary course introducing the fundamentals of digital signal processing, musical systems programming, and a wide range of sound design and processing techniques through the Supercollider programming language and Pro Tools. Students explore fundamentals of objectoriented computer programming and musical digital signal processing in this project-based course; focus on the creation and performance of music, synthesis, and sound effects using cutting-edge computer tools; and investigate the creation of their own audio synthesis and transformation software.
MBCM 415 Web-Based Tools for the Music Industry and Worship Arts
3-TBD
Gives students practical experience using webbased tools for tasks related specifically to the commercial music industry and worship arts field. Students learn to use Internet tools for creating an online presence, branding, music marketing, digital distribution, remote collaboration, web-based project management ,and social media communitybuilding.

## MBCM 489 Music Industry Internship

1-3-F\&S, Summer
Intended as a capstone experience for program studies in Music and Music Industry. Internships may take place in the fields of music business, artist management, marketing, promotions, live sound, recording, and/or various production environments. Students are encouraged to contact potential internship programs well before their
internship semester. Music industry internships are usually done in the final semester following completion of the student's other required coursework.
MBCM 515 Introduction to Music Publishing and Marketing
3-TBD
Teaches students how to set up an independent publishing company, including administration of copyrights, the role of performance rights organizations (BMI, ASCAP, SESAC), and preparing a functioning system for song catalogs. The student develops a publicity plan, submits songs to register with the copyright office, learns how to market and promote compositions and writers by developing effective pitch and promotion strategies, and discovers how to turn demos and lyrics into a functioning independent publishing and marketing business.

## MBCM 520 Music Industry Seminar

2-TBD
Seminar course focusing on the concepts, terminology, and methodology of the music industry's inner workings by engaging students in open discussion with music industry professionals across all areas within the field.

## MBCM 525 Survey of the Music Industry

3-TBD
A survey of the development of the music and recording industry in America, including the history of recording, establishment of the major labels, and the inner workings of the industry that drives the music business. Students also explore diverse music industry career paths in areas such as arts management, music products and merchandizing, public relations, music production and recording, publishing, and online music distribution.
MBCM 557 Advanced Music Production 3-F

Explores core concepts of acoustics and psychoacoustics; the MIDI protocol; music composition and performance using MIDI; hardware-based sound synthesis; softwarebased sound synthesis (virtual instruments); and effects plug-ins and audio sampling through the creation, performance, and production of music works in the electronic medium. Students gain a deep understanding of the MIDI protocol and explore the implications of MIDI and effects in the context of music production, recording, composition, and performance.

## MBCM 558 Recording and Studio Technique

 3-SExamines the technical aspects and aesthetic implications of digital audio software tools, digital audio theory and practice, and advanced sound recording techniques. Students analyze console signal flow, explore microphone techniques, and discuss professional session protocol. Topics are explored through the creation of music using a variety of recording/microphone techniques and computing tools including Pro Tools.

## MBCM 565 Music Production Analysis

## 3-WSP

Distills decades of experience from recording producers into a focused step-by-step approach to the essential elements of successful records. Examines the emotional aspect of music and how that incorporates into memorable musical experiences. The genres and the message and lyrics may change, but the actual craft of making a great record remains the same. This course develops listening skills and teaches how producers with 30 years of experience listen to music differently than developing producers.
MBCM 570 Artist Management and Development
3-TBD
Allows students to explore the role and importance of artist managers, what they do,
and how they impact the careers of artists and their brands. Covers why an artist needs a manager, the keys to finding the right artist(s), and the key roles the manager as developer plays in an artist's career. Also explores a typical management contract and develops artist career planning, money management, and what to do when things go wrong. Students examine the principles of leadership dynamics and motivation in order to focus and empower current and potential managers.

## MCHU 151 Melodic Improvisation

1-F
Development of melodic improvisational skills with reference to harmony and rhythm. Discussion and practice of various styles with the building of improvisational skills for each along with discussion of how to create continuity with all aspects of a worship service. Examination of pre-existing arrangements to understand style, learning to create an environment that communicates/enhances texts, and ways to lead others in developing improvisational skills. Large portions of class time will be devoted to "hands on" experimentation.
MCHU 311 Historical Congregational Song 2-WSP
Introductory history of hymnology from the early Christian Church to about 1950. An investigation of hymnic poetic and musical styles. Stress on familiarity with the hymnal. Liberal Arts.

## MCHU 312 Recent Congregational Song

2-WSP
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 and Worship repertoire, and global song. Basic music-reading ability is expected. Liberal Arts.

[^0]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. Liberal Arts.

## MCHU 475 Keyboard Service Playing

2-F20
Development of keyboard skills with special application to acoustic piano and/or electronic keyboard playing in church service: contemporary praise music and hymn playing, lead sheet harmonization and transposition, extemporization in various styles (blended worship) with effective segues, accompanying (solo, small group, and choral), arranging and coordinating music with sermon, and vocational music ministry topics. Required of piano majors. By permission of instructor only for other students.

## MED 200 Vocal Methods

1-S
Provides an examination of the vocal instrument as well as teaching strategies appropriate for teaching vocal/choral music students in a middle and high school setting. Designed for intended music educators and provides opportunities to experience basic training in the correct use of the singing voice in addition to intellectual analysis of the development of efficient singing technique and skill in performing literature.
MED 210 Field Experience in Music Education 2-May
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 first 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 Music Student Handbook for detailed explanation of

Field Experience and other Certification requirements.)
MED 211 Workshop: Language Acquisition and Literacy Development
2-S
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.
MED 227 String Techniques
2-WSP
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 of class, three hours of practice.

## MED 240 Percussion Techniques

2-WSP
Preparation for teaching percussion instruments through the high school level. Development of playing skills on timpani, mallet instruments, and drums. Survey of percussion ensemble music and other materials. One class per week, three hours of practice.
MED 241 Brass Techniques
2-WSP
Preparation for teaching brass instruments through the high school level. Development of playing and demonstration abilities. Survey of methods and materials. Two hours of class, three hours of practice.

## MED 242 Woodwind Techniques

2-WSP
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.
MED 351 Elementary School Methods 2-F

Introduction to the teaching and decisionmaking skills necessary to be an effective elementary general music teacher ( $\mathrm{K}-6$ ). Through peer teaching; observations; teaching sessions with children; and reading, writing and creative assignments, prospective elementary music teachers develop an understanding of the musical development of children and the skills needed to teach them effectively. Particular emphasis on preparation to teach according to the New York State Learning Standards for the Arts and the National Association for Music Education National Core Music Standards. This course has a lab fee.

## MED 352 Secondary Choral Methods

2-S
Preparation for directing secondary school (grades 7-12) choral ensembles and for teaching secondary-level general music and other non-performance music classes. Particular emphasis on 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 and 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 403 Music Education Student Teaching: Elementary Level

6-F,S
Six- to seven-week placement in a music education setting at the elementary level (grades K-6). Includes a minimum of two weeks with full teaching load responsibilities. Designed for students who have completed all required professional education coursework as per emphasis. Taken concurrently with MED
419. (See HCTEP policy on employment and activities while student teaching.)
MED 404 Music Education Student Teaching: Secondary Level
6-F,S
Six- to seven-week placement in a music education setting at the secondary level (grades 7-12). Includes a minimum of two weeks with full teaching load responsibilities. Designed for students who have completed all required professional education coursework as per emphasis. Taken concurrently with MED 419. (See HCTEP policy on employment and activities while student teaching.)

## MED 419 Student Teaching Seminar

 2-FSeminar during and following student teaching dealing with effective teaching practices including problems of motivation, group management, curriculum development, and musical education goals. Fulfills General Education Writing-Enriched course requirement. This course has a lab fee.
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. Fulfills General Education Art \& Music requirement. Liberal Arts.
MHS 223 History of Rock and Roll and Commercial Music in the U.S.
3-May
Examination of the history of the commercial music industry in America from the start of the industry to the industry of today, including the musical influence of the commercial song. Beginning with the birth of American popular music in the U.S., explores the development of
ragtime, blues, jazz, the crooners, American musical theater, country, Latin, rock and roll, rock, rap, and contemporary Christian music. Fulfills General Education Art \& Music requirement. Liberal Arts.
MHS 230 Music History and Literature I (Early Music to Baroque)
3-F
Development of music from the earliest times through the Baroque period (1750). Principles of listening and style analysis, lectures, and discussion. Principles of Christian aesthetic discussed. Fulfills General Education Art and Music requirement and Writing-Enriched course (with MHS 280). Liberal Arts.

## MHS 254 Music of World Cultures

## 3-WSP

Survey of Asian, Latin American, African, and European music; listening experience with research and analysis. Introduction to ethnomusicology to broaden student's perspective. Recommended for those interested in the mission field or intercultural relations. Fulfills General Education Art \& Music requirement. Liberal Arts.
MHS 256 Music and Global Cultures in Christian Perspective
3-S21
Explores connections between culture, philosophy, theology, and music, drawing on examples from Western and non-Western culture. Examines topics such as music and expression, music and politics, music and faith, ethics of global engagement in the arts, etc., through lectures, readings, listening examples, and in class discussion. Fulfills General Education Changing World or Art or Music requirement. Liberal Arts.

## MHS 280 Music History \& Literature II (Classical-Romantic)

3-S
Explores the development of music from early Classical Era through the present day. Emphasis on principles of listening and style
analysis through lectures, readings, listening examples, and in-class discussion. Incorporates discussion of aesthetics and cultural trends from a Christian worldview. Fulfills General Education Writing-Enriched course (with MHS 230) Liberal Arts.
MHS 380 Music History and Literature III (20 ${ }^{\text {th }}$ Century and Beyond)
3-F
Development of music styles in cultural context from the late Romantic period through the $20^{\text {th }}$ century and beyond. Principles of listening and style analysis, lectures, and discussion. Emphasis on individual research, writing, and class presentations. Evaluation of cultural trends through a Christian worldview perspective. Fulfills General Education Art \& Music requirement and Writing-Enriched course (with MHS 230, 280). Liberal Arts.
MHS 385 History and Philosophy of Worship Music
3-WSP
A study of the history of worship from the Old Testament, the early church, through the modern period. Emphasis given to changes in worship practices resulting from the Reformation, the Great Awakenings, revival movements, large evangelistic crusades of the 1940s and 1950s, Jesus Movement, and the Praise and Worship movement. 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.
MIN 210 Introduction to Christian Ministries 3-S22
Investigation of the biblical, historical, and practical foundations for ministry as essential components of Christian vocation. Lay and
professional aspects of ministry explored in the context of the vocational call. A broad overview of ministry-related fields including parish, educational, cross-cultural and parachurch ministries. Recommended for anyone interested in any form of full-time ministry.
MIN 220 Pastoral Care and Counseling 3-WSP
Presents the knowledge, skills, and dispositions that facilitate a thriving, healthy congregation on both individual and corporate levels. Relational and listening skills, healthy boundaries, peacemaking, and wholeness are examined in light of both psychological and spiritual principles with special attention to the question of referral and how to equip the people of God to care for each other. Prerequisite: PSY 101 Introduction to Psychology.

## MIN 316 Worship in the Church

3-F20
An introduction to liturgical theology including explorations into the biblical and theological foundations for worship and the sacramental life of the Church. Special emphasis on 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

3-S21
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 Preaching and the Church

3-S22
Explores the role of preaching and proclamation in worship and ecclesiology. Examines the character and methods of the preacher. Focus is on the preparation and
delivery of sermons, combining theory of organization structure with tools and techniques for biblically based preaching in various sermon genres. Includes practice in preparing and preaching various types of sermons. Prerequisite: COMM 205
MIN 410 Ministerial Field Education
3-6-Summer
Professional field experience in a local church during a summer internship. Combines theory and practice of ministry through seminars and onsite supervision; focuses on pastor as worship leader and pastor as shepherd.
MISS 191, 192, 291, 292, 391, 392, 491, 492 Independent Study
1, 2, 3, or 4-WSP
MISS 241 History of the Global Christian Movement
3-S22
A study of the expansion and development of the global Christian movement with emphases on 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 Missions and the Global Church 4-F21
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. Fulfills part of General Education Changing World requirement.
MISS 243 Introduction to Missiological Foundations
4-F20
Introduction to important concepts needed for effective missions ministry. This includes biblical (Old and New Testament) and theological foundations of missions based on the concept of missio dei, an understanding of contextualization studying the interaction of
the biblical message within a cultural context (including a range of applications from leadership to worship) and other current issues impacting missions ministry.

## MISS 295, 395 Special Topics in Missions

## 1, 2, 3, or 4-WSP

Topics offered according to interest and demand.

## MISS 311 Cross-Cultural Field Experience

3, or 4-WSP
Introduction to mission work through preapproved 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 341 Biblical and Theological Foundations of Missions

4-WSP
Examination of the biblical foundations of missions based on the concept of missio dei (God's mission). Explores the extensive Old Testament roots and New Testament development of mission with special relevance to global Christian service in missions and other cross-cultural venues. Explores issues and theological themes of significance to these areas of Christian service. Liberal Arts.

## MISS $\mathbf{3 4 2}$ Contextualization in Missions

 4-WSPStudy 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 361 Engaging the Muslim World

 4-WSPFor over 1,400 years, Islam and Christendom have frequently engaged in rival forms of civilization encounters and/or clashesinvasions, polemics, diplomacy, colonization,
dialogue, commerce, and academic research-each according to the context of the era. Relying on comparative, historical, and missiological methodologies, students study the ever-changing yet often-repeated approaches to Muslims in chronological appearance and from various Christian communities-the Oriental, Byzantine Orthodox, Roman Catholic, and Protestant churches-with special emphasis on the current Evangelical "contextualized" approaches. Students gain strong confidence and learn wise diplomacy in sharing Jesus with Muslims in a wide variety of means. This course has a fee. Fulfills part of General Education Changing World requirement. Liberal Arts. Prerequisite: REL 260

## 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 firsthand 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. Firsthand 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. Optional Houghton in East Africa Program course. Prerequisite: previous coursework in missions or permission
MISS 440 Unorthodox and Folk Islam
4-WSP
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 women 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. Prerequisite: INCL 260
MISS 441 Islam in North America
4-WSP
The Islamic movements in North America are unique in being both very recent and limited to African-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 explore the various sociological expressions, their political aspirations, and their texts. Special attention to various Christian ministries to Muslims in North America. Liberal Arts. Prerequisite: INCL 260

## MLT 113 Masterworks of Sight and Sound 3-WSP

Covers various music cultures around the world. Objectives are to gain a solid understanding of how to think critically about all music as the class engages in analyzing the components of what makes up music by comparing and contrasting these components and to be able to identify similarities in music cultures to further enhance future musical experiences. Liberal Arts.
MLT 211 Music and Listening: An Introduction 3-F\&S
Introduction to the study and enjoyment of classical masterpieces in music: recordings, outside biographical readings, reports on current musical events. Fulfills General Education Art \& Music requirement. Liberal Arts.
MLT 432 Large Ensemble Instrumental Literature
2-S21
Exploration of the historical development of the orchestral and wind band genres. Survey
of major band and orchestra works from 1600 through the present. Liberal Arts.

## MLT 460 Vocal Literature

2-S
Survey of standard vocal repertoire from the High Baroque period 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 that, today, is accepted as part of the piano repertoire. Emphasis on $18^{\text {th }}, 19^{\text {th }}$-, and $20^{\text {th }}$-century repertory. Examination of style and structure and their impact on performance. Chamber music with piano, concerti, and solo piano literature. Liberal Arts.
MSL 101/101L Foundations of Officership (Course and Lab)
2-F
Introduces 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, the cadets should be prepared to receive more complex leadership instruction.

MSL 102/102L Basic Leadership (Course and Lab)
2-S
Builds on the fundamentals introduced in the previous semester by focusing on leadership theory and decision-making. "Life skills" lessons in this semester include problemsolving, critical thinking, leadership theory, followership, group interaction, goal-setting, and feedback mechanisms. Upon completion, 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 MSL 100-level courses, 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, focusing principally on officership and providing an extensive examination of the unique purpose, roles, and obligations of commissioned officers. Includes a detailed look at the origin of our institutional values and their practical application in decisionmaking and leadership to focus on a career as a commissioned officer. Upon completion, 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 prospect of
shouldering the responsibility of a commissioned officer in the United States Army.

## MTH 101 Music Fundamentals I

2-F
Focused work in identification (aural and written) of intervals, scales, rhythms, chords, and other basic materials of Western tonal music. Improving fluency in aural and theoretical skills. Fulfills General Education Art \& Music requirement. Liberal Arts.

## MTH 102 Music Fundamentals II

2-S
Continuing exploration of music fundamentals including triads, keyboard skills, aural identification of musical elements, and introduction to standard repertoire. Introduction of basic melodic construction, elements of sound, and modes. Intended for students desiring to improve musical and notational fluency. Fulfills General Education Art \& Music requirement. Liberal Arts.
MTH 105 Introduction to Composition and Arranging
2-F21
The skills of music composition and arranging are necessary for every complete musician. This course offers the opportunity to gain experience and confidence in expressing musical ideas in a creative format. Students acquire an understanding of instrument capabilities, notation, and compositional techniques involved in developing and extending ideas into complete and satisfying compositions.
MTH 216 Sibelius I: Commercial Notation and Lab
3-S22
A comprehensive approach to the essentials of Sibelius notation software and its applications. Topics include creating professional scores and lead sheets in Sibelius 7.5 for multiple ensembles and musical genres. Students must have prior experience with formal musical
notation. Instructor permission required for non-music majors. This course has a fee.

## MTH 220 Music Theory I

3-F
A foundational study of theoretical concepts in the Western tonal system. Development of fluency with basic triads and seventh chords, Roman numeral figured bass notation, basic counterpoint, musical texture, and harmonic analysis of standard repertoire. Liberal Arts. Corequisite: MTH 221 or instructor permission

## MTH 221 Musicianship I

1-F
Identification of chromatic intervals and melodies in tonal context. Development of ability to sight-sing melodies of moderate length using moveable-do solfege syllables. Fluency in rhythmic, melodic, and harmonic dictations in major and minor mode. Liberal Arts. Corequisite: MTH 220 or instructor permission
MTH 223 Contemporary Music Theory II 3-S
A comprehensive study of traditional and contemporary music theoretical concepts relevant to students in music industry, worship arts, and other contemporary fields. Topics include lead sheet symbols and analysis, roman numerals, and figured bass through a contemporary lens, voice leading, chromaticism, and types of modulations in popular music. Additionally, students are introduced to the Nashville numbering system and basic song-form analysis. Liberal Arts. Corequisite: MTH 228; Prerequisite: MTH 220

## MTH 227 Music Theory II

3-S
A continued study of theoretical concepts in the Western tonal system. Introduction to analysis of formal structures, melodic variation, and creation of original harmonic progressions. Development of fluency with non-chord tones, cadences, and all diatonic triads and seventh chords. Liberal Arts.

Prerequisite: MTH 220 or instructor permission; corequisite: MTH 228 or instructor permission MTH 228 Musicianship II

## 1-S

Continuation of a cumulative study of ear training, including prepared singing, sightsinging, and melodic and harmonic dictation. Topics include melodies and harmonies using the major and minor modes, predominant chords, and seventh chords along with an early introduction to chromaticism. This performance-lab-style course should parallel the concurrent music theory course, putting into practice the same written principles and techniques learned there. Liberal Arts. Prerequisite: MTH 221 or instructor permission; corequisite: MTH 227 or instructor permission

## MTH 315 Contemporary Music Theory III

 3-FContinuation of a comprehensive study of traditional and contemporary music theoretical concepts relevant to students in music industry, worship arts, and other contemporary fields. Topics include both classical form analysis and popular song-form analysis, modulation in classical and popular music, chromaticism, and secondary chords with an emphasis on a broad understanding across all relevant musical genres. Liberal Arts. Prerequisite: MTH 223; corequisite: MTH 326

## MTH 325 Music Theory III

3-F
Continuing analysis of Western tonal harmony through advanced chromaticism and $18^{\text {th }}$ century counterpoint. Development of fluency with secondary key areas, modulation, and small formal designs. Creation of harmonic progressions using modal mixture. Liberal Arts. Prerequisite: MTH 227; corequisite: MTH 326 or instructor permission
MTH 326 Musicianship III
1-F

Continuation of a cumulative study of ear training, including prepared singing, sightsinging, and melodic and harmonic dictation. Course topics include melodies and harmonies using chromaticism, secondary chords, altered chords, and various modulations. This performance-lab-style course should parallel the concurrent music theory course, putting into practice the same written principles and techniques learned there. Liberal Arts. Corequisite: MTH 325 or instructor permission

## MTH 327 Music Theory IV

3-S
Western music of the $20^{\text {th }}$ and $21^{\text {st }}$ centuries along with relevant materials from selected world music traditions. Development of analytical, compositional, and arranging skills using these materials. Liberal Arts. Prerequisite: MTH 325; corequisite: MTH 328

## MTH 328 Musicianship IV

## 1-S

Development of sight-singing, aural, and improvisational skills involving the music of the $20^{\text {th }}$ and $21^{\text {st }}$ centuries along with relevant materials from selected world music traditions. Liberal Arts. Corequisite: MTH 327 or instructor permission

## MTH 458 Sixteenth-Century Counterpoint

 3-WSPA study of the principles of counterpoint in Western music with an emphasis on models from $16^{\text {th }}$-century vocal polyphony. Analysis of repertoire, original compositions. Liberal Arts. Prerequisite: MTH 326 or instructor permission

## MTH 463 Form and Analysis

3-WSP
Structural and harmonic analysis of musical form through simple and compound song form, variation, rondo, and sonata forms. Contrapuntal forms of the invention, chorale prelude, fugue, and canon. Study of the analysis techniques of Schenker, La Rue, and others. Liberal Arts.

## MTH 466 Orchestration

3-WSP
Study of instrument families and combinations in literature with emphasis on composition, arrangement, and transcription for specified ensembles. Students develop skills in combining techniques drawn from various historical and contemporary practices.
MTH 467 Systems of Analysis and Contemporary Music
3-S22
Study of techniques for the analysis of contemporary music, including set theory and serialism. Introduction to analytical systems of Schenker, Hindemith, Forte, and others.
MUS 180-182 Practicum in Music Industry 0 or 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 a realworld work environment. Can be repeated; must be taken for credit in first semester. By permission of instructor. Corequisite: employment as student worker for Live Sound and Recording Services
MUS 191, 291, 391, 491 Independent Study 1, 2 or 3-WSP

## MUS 207 Introduction to Pro Tools

3-F
Introduction to Pro Tools sound and recording software. Foundational skills necessary to record, edit, and mix at a 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 take the Pro Tools 101 DigiDesign Certification exam. This course has a lab fee. By permission of instructor.
MUS 208 Pro Tools Production I
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 through real-world examples and frequent hands-on assignments that will enhance your capabilities in all aspects of Pro Tools production. Successful completion prepares students to take the Pro Tools 110 DigiDesign Certification exam. This course has a lab fee. Prerequisite: MUS 207

## MUS 210 Percussion for Non-Majors

2-S21
A hands-on introduction to drum set and percussion. Students learn how to perform and record on drum set, hand percussion, and other accessory percussion. Ideal for students interested in performing, teaching, managing, worship-leading, producing, or other fields in the area of music.

## MUS 219, 220 Foreign Language Diction

 1-F\&SBasic diction facility in English, Italian, German, and French. Required of Voice majors and concentrations (any curriculum); elective for others. Two class meetings per week.
MUS 222-224 Houghton Jazz Ensemble 0 or 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 or 1-F\&S
Preparation and presentation of repertoire for flute ensemble. Permission of director.

## MUS 229 Basic Conducting

2-F\&S
Basic conducting, rhythmic development, and baton technique; three hours per week. Prerequisite: MTH 200

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 255 Brass Ensemble
0 or 1-F\&S
Preparation and presentation of repertoire for brass ensemble. Permission of director.
MUS 310-314 Men's Choir
0 or 1-F\&S
Major ensemble. Performs repertoire for male voices and combines with Women's Choir to perform mixed repertoire.
MUS 315-319 Women's Choir
0 or 1-F\&S
Major ensemble. Performs repertoire for female voices and combines with Men's Choir to perform mixed repertoire.
MUS 320-324 College Choir
0 or 1-F; 0, 1 or 2-S
Major ensemble. Audition required. Ensemble is available for 2 credits in any semester during which the ensemble tours. By permission of the director.
MUS 331-335 Houghton Symphony Orchestra
0 or 1-F\&S
Major ensemble. Audition required. By permission of the director.
MUS 336-340 Houghton College Wind Ensemble
0 or 1-F; 0, 1 or 2-S
Major ensemble. Audition required. Ensemble is available for 2 credits in any semester during which the ensemble tours. By permission of the director.
MUS 341 Jazz Workshop

O or 1-F21
Education, exploration, and experimentation of jazz improvisation and styles.

## MUS 353 Lyric Theater

0 or 1-S
Preparation and presentation of operatic, musical theater, and operetta scenes and complete works from the standard repertoire. Typical four-year cycle comprises 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 395 Special Topics

1, 2 or 3-WSP

## MUS 429 Advanced Conducting

2-S
Continues the study of gesture techniques from Basic Conducting and adds significant attention to the elements of analysis, rehearsal technique, and performance. Students prepare material for major choral and/or instrumental ensembles and gain actual experience directing those ensembles.

## MUS 447 Piano Ensemble

0 or 1-F\&S
Performance of keyboard ensemble repertoire, Renaissance to $20^{\text {th }}$ 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 or 1-F
Practical experience singing in a small group of 12 to 16 performers. Three hours in rehearsal per week. Permission of director.
MUS 460-469 Chamber Ensembles
0 or 1-F\&S
Ensembles organized to include interested students. Small groups rehearse three hours
per week. Standard literature for hand bells, percussion, strings, woodwinds, brass, percussion, guitar, etc., is studied with a view toward public performance during the year. Permission of appropriate ensemble director.
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 472 Voice Pedagogy
2-WSP
Methods of voice production and development as preparation for teaching; emphases on teaching and evaluation. Attention to proper selection of music. Two class hours per week; junior and senior year.

## MUS 477 Piano Pedagogy

3-S
Preparation for teaching beginning and intermediate piano students. Study of beginning and intermediate piano methods and literature, including adult and preschool materials. Survey of professional organizations and publications for private piano teachers 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 495 Internship
3-6-WSP
MUS 529 Advanced Choral Seminar 2-F\&S
Exploration of conducting and rehearsal techniques in the context of a wide variety of choral literature. Topics rotate by semester and include large and small, sacred and secular forms of Western art music and practical solutions related to the performance of choral music from non-Western cultures. Three semesters required for graduate choral
conducting majors; open to graduate and undergraduate students with permission of the instructor. Undergraduates may take the course at the 429 or 529 level.
MUS 530 Advanced Instrumental Conducting Seminar

2-F
Exploration of conducting and rehearsal techniques in the context of a wide variety of instrumental settings and literature. Topics rotate by semester and include wind band repertoire, programming, ensemble intonation, rehearsal techniques, organization and administration of large instrumental ensembles, and musical growth as a conductor. Repeatable.

## PERF 385 Junior Recital 0-F\&S

PERF 485 Senior Capstone: Senior Recital 0-F\&S

## PHED 115 Personal Health \& Wellness

2-WSP
Examines all the dimensions of health and wellness. Emphasis on the factors that influence health and wellness, particularly individual behaviors. Students participate in self-assessments that provide information about their health and wellness behaviors and their overall health status. In addition, students learn strategies that improve lifetime health and wellness. Fulfills General Education Wellness requirement.

## PHED 208 First Aid/CPR/AED

.5-WSP
Basic understanding of lifesaving techniques related to first aid and cardiopulmonary resuscitation. Taught via instructional videos and practice of several emergency procedures on human participants and manikins per standards established by the American Red Cross.
PHED 228 Lifeguarding
1-WSP

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 yards of continuous swim, strong swimming skills
PHED 230 Aquatics
2-WSP
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 recordkeeping. Concurrent registration with SRWM 308 unless otherwise approved. Prerequisites: 15 years of age or older, 500 yards of continuous swim, strong swimming skills
PHIL 191, 291, 391, 491 Independent Study 2,3,4-WSP
Liberal Arts.
PHIL 201 Ethics
3-F\&S
An overview of prominent approaches to moral philosophy, such as contractualism, consequentialism, and virtue theories. Consideration given to several applied topics, illustrating the strengths and limitations of the theories considered.
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). Liberal Arts.
PHIL 222 Logic and Critical Thinking 3-WSP
Introduction to logic and critical thinking, focusing on the interpretation and logical analysis of ordinary discourse (reasoning stated in regular, non-technical language). Formal and informal logical approaches used to better understand and evaluate arguments. Liberal Arts.

## PHIL 231 Topics in Premodern Philosophy

 3-FExamination of specific movements, problems, or themes in philosophy before 1450. Repeatable when topics are diverse. Liberal Arts.

## PHIL 232 Topics in Modern Philosophy

## 3-S

Examination of specific movements, problems, or themes in philosophy after 1450. Repeatable when topics are diverse. Liberal Arts.

## PHIL 235 Feminist Ethics

3-WSP
Introduction to feminist contributions to contemporary ethical thought, including critiques of existing ethical theories, development of alternative ethical systems, and increased philosophical attention to neglected issues of particular interest to feminists, such as oppression or rape. Liberal Arts.

## PHIL 237 Just War?

3-WSP
Exploration of the dominant tradition in the ethics of warfare, the Just War tradition. Topics include both the traditional criteria of jus ad bellum (just causes for going to war) and jus in bello (just behavior within a war) and critics—both pacifist and "realist"—of these criteria. Consideration given to how new technologies and new kinds of conflict
challenge the application of the traditional criteria. Liberal Arts.

## PHIL 238 Sexual Ethics

3-WSP
Philosophical analysis of debates in sexual ethics and the philosophy of love, using historical and contemporary readings. Topics discussed may include friendship, flirting, love, monogamy, marriage, homosexuality, pornography, and sexual assault. Liberal Arts.
PHIL 240 Medical Ethics
3-WSP
Introduction to contemporary medical ethics, analyzing case studies and philosophical essays on a variety of dilemmas in contemporary medical practice, such as truthtelling and confidentiality, research ethics, reproductive technologies, abortion and embryonic stem-cell research, and euthanasia and physician-assisted suicide. Service in a local health-care setting is also possible as a supplement to the course (for additional credit). Liberal Arts.

## PHIL 250 Aesthetics

## 3-WSP

A philosophical study of art and aesthetic experience focusing on the value of art for human life rather than the narrower (and less useful) question of the definition of art. Explores the relative importance of 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 255 Reason and Religious Belief

3-WSP
Introductory course in the philosophy of religion. A number of central topics are surveyed with special focus on religious epistemology, the relationship between faith and reason, and the rationality of religious
belief. Also examined are major theistic arguments, the problem of evil, divine attributes, and providence. Liberal Arts.

## PHIL 256 The Nature of God

3-WSP
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 260 Introduction to Political Thought

 3-4-WSPIntroduces 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, equips students for careful normative reflection on public life. Liberal Arts.
PHIL 265 Christianity, Postmodernism, and Beyond

## 3-WSP

Explores relationship between Christian faith and practice and postmodern culture. Primary and secondary readings drawn from a variety of disciplines and sources explore the implications of postmodernism for church, individuals, the media and popular culture. Liberal Arts.

## PHIL 275 Philosophy of Law

3-WSP
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.

## PHIL 290, 390, 490 Special Topics

3-WSP
Examination of specific movements or particular problems in philosophy or themes in the history of ideas. Liberal Arts.

PHIL 303 Organizational Ethics
3-F Module II (Houghton Online)
Focuses on ethical theories and specific moral issues within various organization types: not-for-profit, for-profit, and service organizations. Students consider ethicsrelated personal and organizational decisionmaking processes and address a variety of topics including strategies for stakeholder and employee relations, marketing, and globalization. Emphasis on issue recognition, analysis and consistency of organizational decision-making, and application of ethical principles. Liberal Arts.

## PHIL 311 Environmental Ethics

3-WSP
Examines several contending ways of thinking about human beings' relationship to and responsibility for the non-human world. In addition to general questions about the value of the non-human world, explores several specific areas of applied reflection, such as the ethics of eating meat. Liberal Arts.

## PHIL 331 Moral Psychology

3-WSP
Survey of topics at the intersection of psychology and ethics, requiring readings from both philosophers and psychologists. Topics may include moral motivation, moral character, moral development, and moral responsibility. Liberal Arts.
PHIL 354 The Problem of Evil 3-WSP
In-depth exploration of philosophical thought on the question of whether and how belief in a good deity is compatible with the great evils we see in the world around us. Students study the history of the topic before turning to its treatment in contemporary philosophy of religion. Liberal Arts.

## PHIL 355 Aquinas

3-WSP
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 360 History and Philosophy of Science 3-WSP

Survey of the rise of Western science from its origins in antiquity to the present, addressing developments in both scientific content and method. Major historical figures considered include Aristotle, Copernicus, Galileo, Bacon, Descartes, and Darwin; the examination of present issues focuses on philosophical and sociological dimensions of scientific practice in our own day: How does science progress, what distinguishes science from non-science, and how does the scientific establishment deal with the threat of fraud? Liberal Arts.

## PHIL 370 Ethical Theory

## 3-WSP

Analysis of traditional normative theories (formalism, consequentialism, and virtue ethics) through the reading of primary sources. Also explores developments in contemporary moral theory. Liberal Arts.

## PHIL 375 Kierkegaard: A Man for All

## Disciplines

3-WSP
Reading seminar on some key works of the "melancholy Dane," including (for example) "Either/Or," "Fear and Trembling," "The Sickness unto Death," "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.

## PHIL 380 Major Figures

3-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 385 Issues in Philosophical Theology
3-WSP
Seminar examining selected topics in Christian theology 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, and Faith. The specific issue(s) to be considered are identified each time the course is scheduled. Repeatable when topics are diverse. Liberal Arts.

PHIL 395 Philosophy Colloquium
1-WSP
A required seminar for Philosophy majors, expected during the junior year. Meets concurrently with PHIL 495 and helps prepare students for the Senior Capstone experience the following year. Repeatable. Liberal Arts.

## PHIL 495 Senior Capstone: Philosophy Colloquium

2-F
A required capstone seminar for Philosophy majors, normally completed in one of the final two semesters of the student's college experience. May only be taken once for credit. Liberal Arts. Prerequisite: A minimum of 18 hours in philosophy
PHIL 496 Honors in Philosophy
4-S
Liberal Arts.

## PHYS 111 Introduction to Physics for NonMajors I <br> 4-F

Introductory-level algebra-based overview of physics with lab, focusing on central concepts and problem-solving. Topics: God and the universe, units, motion, forces, gravitation, rotation, momentum and conservation, energy and conservation, and thermal energy. Taught at participating high schools to their qualified students. Liberal Arts.
PHYS 112 Introduction to Physics for Non-
Majors II

## 4-S

Introductory-level algebra-based overview of physics with lab, focusing on central concepts and problem-solving. Topics: God and the universe, states of matter, waves, optics, electricity and magnetism, and nuclear physics. Taught at participating high schools to their qualified students. Liberal Arts.

## PHYS 121 Introduction to Physics I

4-F
Algebra-based introduction to physics with lab, focusing on central concepts and problem-solving. Topics: God and the universe, units, motion, forces, gravitation, rotation, momentum and conservation, energy and conservation, fluid mechanics, and thermodynamics. Taught at participating high schools to selected, qualified students. Liberal Arts.

PHYS 122 Introduction to Physics II 4-S

Algebra-based introduction to physics with lab, focusing on central concepts and problem-solving. Topics: God and the universe, states of matter, waves and wave equation, electricity and magnetism, and nuclear physics. Taught at participating high schools to selected, qualified students. Liberal Arts.

## PHYS 151 General Physics I

4-F
Introduction to physics focusing on central concepts and problem-solving. Topics: mechanics, energy, and waves. Six hours lecture with lab each week. Liberal Arts. This course has a fee. Prerequisite: MATH 181 (or MATH $170 / 171$ or 161 or evidence of adequate math preparation)

## PHYS 152 General Physics II

4-S
Introduction to physics focusing on central concepts and problem-solving. Topics: thermodynamics, electricity, magnetism, optics, and modern physics. Six hours lecture
with lab each week. Liberal Arts. This course has a fee. Prerequisite: PHYS 151

## PHYS 212 Modern Physics

2-F20
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. Liberal Arts. Prerequisite: PHYS 152

PHYS 275 Experimental Physics Laboratory 2-F20
Selected experiments in mechanics, electricity and magnetism, and modern physics. Liberal Arts. This course has a fee. Prerequisite: PHYS 152

PHYS 276 Experimental Physics Laboratory 2-S21
Selected experiments in mechanics, electricity and magnetism, and modern physics. Liberal Arts. This course has a fee. Prerequisite: PHYS 275

PHYS 295, 395, 495 Special Topics in Physics
1, 2, 3, or 4-WSP
Introduction to areas of physics not treated in other courses. Liberal Arts.
PHYS 352 Advanced Mechanics 3-S21

Newton's Laws and conservation laws 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 are explored. Liberal Arts. Prerequisite: ENGR 221

## PHYS 353 Electricity and Magnetism

 3-F21An introduction, with applications, to the classical theory of electric and magnetic fields. Begins with an overview of vector calculus for electromagnetic theory and develops

Maxwell's equations. Three lecture hours each week. Liberal Arts. Prerequisite: PHYS 152; corequisite: MATH 225
PHYS 354 Advanced Electricity and Magnetism
3-S22
An examination of the role of special relativity in electromagnetic phenomena. Maxwell's equations are introduced in a relativistic manner and used to investigate the properties of electromagnetic waves. Includes techniques for solving the equations of Laplace and Poisson in electrostatics. Liberal Arts. Prerequisite: PHYS 353; corequisite: MATH 261 recommended

## PHYS 355 Statistical Mechanics

3-S22
Introduction to probability distributions for classical and quantum systems in terms of the microcanonical, canonical, and grand canonical ensembles. Applications include the Einstein crystal, paramagnets, gases, and blackbody radiation. Liberal Arts. Prerequisite: ENGR 323

## PHYS 356 Quantum Mechanics

## 3-S21

Modern quantum mechanics with an emphasis on matrix methods. Topics include time evolution of wave functions, harmonic oscillators, angular momentum, central potentials, the hydrogen atom, and perturbation theory. Liberal Arts. Prerequisite: MATH 241, PHYS 212; corequisite: MATH 261 recommended

PHYS 371, 372, 373, 374, 375 Physics Project Lab

## 2-F\&S

Participation with a faculty member in an individual research project. Students review relevant literature, contribute to experimental design, develop procedures, collect data, analyze data, and compare results to theoretical predictions. Includes reflective student research portfolio and regular
presentations. Liberal Arts. Prerequisites: ENGR 171, MATH 182, PHYS 152
PHYS 391, 392, 491, 492 Independent Study
1, 2, 3, or 4-WSP
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. Usually involves travel to other laboratories such as Los Alamos National Laboratory or Cornell University. May be repeated for credit. Liberal Arts. Prerequisite: Instructor permission
PHYS 471 Physics Project Laboratory 1-F

Participation with a faculty member in an individual research project. May be repeated for credit. Liberal Arts. This course has a fee. Prerequisite: Instructor permission
PHYS 472 Physics Project Laboratory 1-S

Participation with a faculty member in an individual research project. May be repeated for credit. Liberal Arts. This course has a fee. Prerequisite: Instructor permission
PHYS 482 Senior Capstone: Physics Seminar 3-S
Culminating physics research experience. Student research portfolio self-assessment and reflection with respect to student outcomes. Preparation of oral and written reports on research project (for Physics BS) or a topic of current interest in physics journals (for Physics BA). Fulfills General Education Writing-Enriched course requirement. Liberal Arts.

## PHYS 496 Honors in Physics

4-WSP

Liberal Arts.
POLS 110 Introduction to Political Opinion 3-WSP
Research, analysis, and debate on selected topics in political opinion, including electoral processes; government, industry, and the environment; gun control; health care; immigration and border security; domestic and international terrorism and civil liberties; and education oversight, testing, and funding. Offered at participating high schools to selected, qualified students. Liberal Arts.
POLS 111 College Introduction to American Government and Politics
3-WSP
Introduces students to the intellectual and institutional foundations of American government and politics including the U.S. Constitution, popular control of government, and major political institutions. Taught at participating high schools to selected, qualified students. Liberal Arts.
POLS 191, 291, 391, 491 Independent Study
1, 2, 3, or 4-WSP
Liberal Arts.

## POLS 205 In Search of Justice

3-4-WSP
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. Fulfills half of General Education Social Sciences requirement. Liberal Arts.
POLS 212 Social Science Research Methods 3-4-WSP
Basic scientific method and application to social phenomena, procedures and methodological problems in various types of social research, and methods of data analysis. Liberal Arts.

POLS 220 The American Political System 3-4-WSP
The foundation course in American politics. Focuses on fundamental constitutional principles of the American political order, including constitutionalism, separation of powers and checks and balances, federalism, the rule of law, and judicial review. Special attention given to the history of the American Founding, debates over the Constitution, the Federalist Papers, and Tocqueville's later analysis of American democracy. Liberal Arts.
POLS 230 Introduction to International Relations
3-4-WSP
Development of the international system of nation-states; effects of system structure and intrastate elements on international relations; concepts such as power, balance of power, sovereignty, and interdependence; and issues such as foreign policy decision-making, causes of war, and nuclear arms control. Liberal Arts.
POLS 235 Feminist Ethics
3-WSP
Introduction to feminist contributions to contemporary ethical thought, including critiques of existing ethical theories, development of alternative ethical systems, and increased philosophical attention to neglected issues of particular interested to feminists, such as oppression or rape. Liberal Arts.

## POLS 237 Just War?

3-WSP
Exploration of the dominant tradition in the ethics of warfare, the Just War tradition.
Topics include both the traditional criteria of jus ad bellum (just causes for going to war) and jus in bello (just behavior within a war) and critics-both pacifist and "realist"—of these criteria. Consideration given to how new technologies and new kinds of conflict challenge the application of the traditional criteria. Liberal Arts.

## POLS 247 Switzerland: A Case Study in European Politics and Culture

 3-4-WSPGeneral introduction to Switzerland, covering history, politics, literature, and culture. Topics include Switzerland as a multinational, multilingual, and multi-confessional country; Swiss neutrality, federalism, and direct democracy; the country's relation to the European Union; and its experience with immigration. Special attention to similarities and differences between Switzerland and the United States. Fulfills part of General Education Changing World requirement. Liberal Arts.

## POLS 260 Introduction to Political Thought

 3-4-WSPIntroduces 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, equips students for careful normative reflection on public life. Liberal Arts.

## POLS 270 Introduction to Public Policy

 3-4-WSPAn 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, healthcare, transportation, and housing. Liberal Arts.

## POLS 275 Philosophy of Law

3-WSP
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 295, 395, 495 Special Topics in Political Science

3-4-WSP
According to demand and interest, courses are offered on a range of topics in any area of political science. Liberal Arts.
POLS 299 Historical and Political Research 1-WSP

Introduces skills necessary for research and writing within the humanities and humanistic social sciences. Students learn to identify scholarly arguments in the literature, recognize historiographic arguments, analyze primary sources, construct their own arguments, distinguish between primary and secondary sources, and assess appropriate methodologies. At the end, students present their own well-researched argument and criticize those of fellow students. Ideally taken in the sophomore year; students must either have previously taken or be simultaneously enrolled in a 200-level or higher major course. Liberal Arts.
POLS 324 Native American History and Politics
3-4-WSP
History of the United States policy toward Native American tribes from the founding of the country to the present. Special attention to how the legal system has dealt with the claims of Native Americans. Focus on changing conceptions of Indian nationhood and sovereignty in relation to the United States. Liberal Arts.
POLS 325 Executive Power and the Presidency
3-4-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 336 American Foreign Policy
3-4-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 343 Communities, Governance, and Development
4-F20
Attempts to explain the development or underdevelopment of households, communities, and states. At the micro level, examines daily decisions and behaviors of poor households. At the macro level, looks at why some countries attain higher levels of development and others have not. Students are exposed to empirical findings from economics and other disciplines, develop an understanding of contemporary theories to explain development and underdevelopment, study the implications of efforts to reduce global poverty, and identify programs and policies that are more or less likely to be effective. Liberal Arts.
POLS 348 Vienna 1900: Politico-Cultural Crisis and Creativity
3-4-WSP
Studies the late $19^{\text {th }}$-century crisis of faith and reason in turn-of-the-century Vienna, where the Habsburg Empire was crumbling under the pressure of ethnic and national rivalries and competing political ideologies. Across cultural realms-political, literary, philosophical, artistic, musical, architectural, scientific-a remarkable outburst of creativity by a group of first-rate writers, artists, and thinkers reveals the surface refinement and elegance as well as the subterranean turmoil and decay that mark the fin de siècle period. Liberal Arts.

POLS 362 Loyalty
3-4-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 367 Living Like a Narnian: The Social and Ethical Thought of C. S. Lewis
3-4-WSP
In-depth study of the social, ethical, and political thought of C. S. Lewis, one of the $20^{\text {th }}$ century's most influential Christian thinkers. Extensive reading in the works of Lewis, drawn evenly from his fiction and nonfiction writings. Topics include theories of history and the nature of modernity, war and peace, equality, gender and the family, education, political rule, democracy, and technology and scientific progress. Liberal Arts.
POLS 369 Luther and the German Reformation
3-4-WSP
Studies the social and political thought of Martin Luther in the context of the history and theology of the German Reformation. Topics include the doctrine of the Two Kingdoms, the relationship between church and state, the duties of a citizen, social reform (marriage, education, poor relief), and political revolution (the Peasants' War), all situated within Luther's life and times. Liberal Arts.

## POLS 375 Immigration and Citizenship

3-4-WSP
Explores the questions "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 376 Manzanar: Race, Citizenship, and War

## 3-4-WSP

Interdisciplinary exploration of race and American citizenship in war-time through a focus on Manzanar, one of the Japanese internment camps during WWII. Looks at the historical and political background to the internment and considers the Supreme Court's famous Korematsu decision in context. Then moves from legal materials to consider the treatments of Manzanar in memoir, literature, and photographic series by Ansel Adams and Dorothea Lange. Special focus on constructions of American belonging as they appear in historical, political, and cultural contexts. Liberal Arts.

## POLS 393 Field Experience (Internship)

## 1, 2, 3, or 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, 4 credits may be counted toward the major or minor. May be combined with an additional 4 credits for POLS 391. Liberal Arts.

## POLS 426 Constitutional Law

## 3-4-WSP

Studies the jurisprudence of the Supreme Court with a focus on major decisions from the Founding to the present. Topics include government structure and the separation of powers, judicial review, executive and legislative authority, federalism, civil rights and liberties, the Bill of Rights, and equal protection. Liberal Arts.
POLS 437 International Law
3-4-WSP

Introduces students to the field of international law. Heavy emphasis on reading and analyzing international law cases and understanding their application to international relations. Key topics include the sources of international law, sovereignty, the law of war and peace, and humanitarian intervention. Liberal Arts.

## POLS 455 American Constitutional History

 3-4-WSPSurvey of United States constitutional history from its origins to the present. Emphasis on the constitutional system as a whole rather than constitutional law as developed by the Supreme Court. Examines the origins and general principles of constitutional thought, their elaboration in the Founding, and their development through crises over state rights and union in the $19^{\text {th }}$ century, the Civil War amendments, liberty of contract, New Deal intervention, the developing doctrine of civil rights and civil liberties, and the growth of the administrative state. Liberal Arts.
POLS 468 America and the World
3-4-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 materials. Liberal Arts.
POLS 480 Senior Capstone in History and Political Science
3-4-WSP
Capstone course for the majors in History and Political Science. Integration of concepts, knowledge, and methods from previous major coursework. Students improve research, writing, analytical, and communication skills
by writing, revising, and defending in an oral examination a substantial research project based on original research in primary and secondary sources and similar in quality to what would be expected in a first semester of graduate study. Liberal Arts.
POLS 496 Honors in Political Science
3-4-S
Liberal Arts.
PPE 480 PPE Capstone: Qualifying Examinations
2-WSP
Preparation for required qualifying examinations. With guidance from faculty, students engage in intensive review and study for a pair of exams requiring demonstrated retention of and ability to discuss thoughtfully selected material drawn from the core requirements of the major. Liberal Arts.

## PSY 111 Introduction to Psychology

 3-F\&SScientific study of thinking, emotion, and behavior. Surveys theories, issues, and concepts of psychology. May include research participation requirements. Fulfills half of General Education Social Sciences requirement. Liberal Arts.
PSY 191, 192, 291, 292, 391, 392, 491, 492 Independent Study
$1,2,3$, or 4-WSP
Liberal Arts.
PSY 211, 311, 411 Special Topics in Psychology
1-3-WSP
According to interest and demand, courses are offered in Cross-cultural Psychology, Environmental Psychology, Industrial/Organizational Psychology, and other topics. Liberal Arts.

## PSY 213 Developmental Psychology

3-F
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
3-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

3-F
Social behavior from a sociological and psychological perspective, examining the interaction of behaviors of individuals in groups. Topics: prejudice, group processes, leadership, conformity, conformity, and attitude change. Liberal Arts.

## PSY 220 Culture and Human Development

3-S22
Critical analyses of cultural influences on developmental pathways and outcomes from the prenatal period to adulthood. Understanding of culture as a dynamic process rather than a set of fixed traits or attributes essentially intertwined with human development. Liberal Arts.

## PSY 230 Lifespan Development of the Family

 3-S22Considers developmental theory and research related to family composition and systems throughout the lifespan. Attention to nontraditional families and to events that affect family development including divorce, abuse, alcoholism, mobility, poverty, and death. Liberal Arts.

## PSY 301 Psychology of Personality

3-S
Description, development, dynamics, determinants, and assessment of the normal personality. Emphasis on contemporary theories and research. Liberal Arts.
PSY 305 Abnormal Psychology
3-F

Etiology, dynamics, assessment, and treatment of psychopathology. Liberal Arts. Prerequisite: 6 hours in psychology
PSY 306 Psychology of Religion
3-WSP (Houghton Online)
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, and spiritual development. Examines the origin and nature of religion according to thinkers such as Kierkegaard, Freud, Jung, Maslow, Tillich, and Frankl. Liberal Arts.

## PSY 309 Statistics

4-F\&S
Descriptive and inferential statistics: measures of central tendency and variability, discrete and continuous probability functions, sampling, estimation, hypothesis testing, correlation, regression, chi-squared, and ANOVA. Liberal Arts.

## PSY 310 Experimental Methods

4-S
Experimental and other quantitative methods used in the study of thinking and behavior. Applied statistical analysis, laboratory experiences, and research writing. Liberal Arts. Prerequisite: PSY 309
PSY 312 Advanced Statistics
4-WSP
Factorial and repeated measures analysis of variance, analysis of covariance, time series analysis, multiple regression, factor analysis, and multivariate techniques. Statistical computing. Liberal Arts. Prerequisite: PSY/BADM 309

## PSY 314 Child Psychopathology

3-S
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 315 Psychological Assessment

3-F21
Principles of construction, validation, and use applied to a variety of ability and personality tests. Selected tests administered with guided interpretation. Liberal Arts.
PSY 318 Psychology of Race and Racism
3-F
Drawing from a social psychological perspective, explores racial identity development; the ways racism, racial prejudice, and racial biases have led to suffering; and the impact of racialized social institutions on cognition, emotion, and behavior. Ultimately, students are asked to think critically about their own racial development, participation in racialized systems, and potential to impact a racialized society. Liberal Arts.

## PSY 320 Stereotyping \& Prejudice

3-S22
Provides an overview of research on the social psychological processes underlying stereotypes, prejudice, and discrimination. Addresses potential sources of stereotypes; evidence of the biasing effects of stereotypes on memory, cognition, and behavior; the impact of stereotypes and prejudice on targets; and potential strategies for reducing prejudice and discrimination. Other topics include specific "isms" (e.g., ageism, sexism, racism, etc.), hate crimes, and hate group membership. Liberal Arts.

## PSY 321 Adult Development and Aging 3-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 325 Human Sexuality

3-S
Examines sexuality as a component of our personalities, an aspect of our behavior, and
an element in our environment. Considers how sexuality develops and interacts with other aspects of our thought and behavior. Liberal Arts.

## PSY 331 Moral Psychology

3-WSP
Survey of topics at the intersection of psychology and ethics, requiring readings from both philosophers and psychologists. Topics may include moral motivation, moral character, moral development, and moral responsibility. Liberal Arts.
PSY 335 Drugs and Behavior
3-S22
Principles of action of psychoactive drugs; their effects on body, mind, and society; patterns and causes of their use and abuse; and prevention and treatment. Liberal Arts.

## PSY 337 Social Cognition

3-Online-WSP
Social cognition is a subdiscipline 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 340 Cognitive Development

3-F20
Concepts, principles, theories, and research concerning the biological and experiential influences on the intellectual growth of the child from infancy through adolescence (with some discussion relevant to adult cognition). Topics include memory, perception, attention, representation, language acquisition, reasoning, and problem-solving. Liberal Arts.
PSY 342 Social Neuroscience
3-S21
The growing field of social neuroscience addresses social psychological questions using the methods of neuroscience (fMRI, EEG, etc.). This course provides an overview of some influential findings in this exciting area of
research while encouraging critical consumption of the claims made by these researchers. Topics include self-regulation (e.g., neural activation when we try to resist temptation), social pain (e.g., what happens in the brain when we're ostracized), altruism (e.g., neural responses to others' suffering), morality, and prejudice. Liberal Arts.

## PSY 350 Cultural Competencies for Practice

 3-F20Introduction to multicultural competencies needed for all helping professions (e.g., physicians, counselors, therapists, social workers, health care providers). Emphasis on understanding and communicating with clients/patients who do not come from majority culture backgrounds. 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. Three hours of lecture, three hours of lab each week. This course has a lab fee. Liberal Arts.
PSY 393 Collaborative Research in Psychology 0-4-F\&S
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 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 instructor permission. Liberal Arts.

[^1]faculty member. Topics in social psychology, cognition, learning, biopsychology, and personality are available. Students 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 instructor permission. Liberal Arts.

## PSY 401 History and Systems of Psychology

 3-WSPAntecedents and evolution of psychological systems and concepts, including the life and works of historically eminent psychologists. Liberal Arts. Prerequisite: 16 credits in psychology
PSY 402 Counseling and Psychotherapy
3-S
Introduction to major systems of psychological intervention and their rationale. Emphasis on theory rather than practice. Liberal Arts.

## PSY 415 Internship in Psychology

0-6-F\&S
A supervised experience in a psychological setting integrating theory with professional practice. By application only through the department. Liberal Arts.

## PSY 480 Senior Capstone Seminar

3-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. Fulfills General Education Writing-Enriched course requirement. Liberal Arts. Prerequisites: PSY 309, 310, 21 credits of psychology
PSY 481 Senior Capstone Seminar I
2-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. Liberal Arts. Prerequisites: PSY 309, 310, 21 credits of psychology

## PSY 483 Senior Capstone Seminar II

1-Mayterm
Continued informed discussion of significant and contemporary concepts and issues.
Includes presentation of an individual research or group project on some aspect of the discipline and completion of a personal portfolio. Required of all senior majors. Liberal Arts. Prerequisites: PSY 309, 310, 21 credits of psychology
PSY 496 Honors in Psychology 3-S
Liberal Arts.
REC 191, 291, 391, 491 Independent Study
$1,2,3$, or 4-WSP
REC 204 Wilderness Medicine
2-WSP
Helps prepare students to obtain the Wilderness First Aid or Responder certification if they choose. Highly experience-based, covers topics including search and rescue, survival and support, and ACA Swiftwater Rescue. Provides practical experience in responding to outdoor-oriented scenarios.

## REC 311 Special Topics

1, 2, 3, or 4-WSP
According to interest and demand, courses are 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-WSP
Semester-long course including 80 hours of backcountry medicine to enable students to handle all types of wilderness emergencies. Students learn patient assessment, treatment, and evacuation as well as trip leadership and problem-solving. Emphasis 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.

## REL 101 Defining Ourselves, Our

 Communities, and the Cosmos: A Survey of the Major Religious Faiths from the Ancient World to 15003-F
Surveys the early history and theology of the major religions practiced in $21^{\text {st }}$-century cities: Hinduism and Buddhism and the three Abrahamic traditions, Judaism, Christianity, and Islam. Explores these religions in various internal contexts-historical, cultural, sociopolitical, ethical, communal, and personal-with emphasis on the sacred texts of each tradition. Special attention to how Christianity, the animating faith of Houghton College, has impacted the world and how it can be helpfully incarnated in a pluralistic culture. Liberal Arts.
REL 102 Defining Ourselves, Our Communities, and the Cosmos: A Survey of the Major Religious Faiths from 1500 to the Present
3-S
Traces the intertwining history and developments since 1500 of the major religions practiced in $21^{\text {st }}$-century cities: Hinduism and Buddhism and the three Abrahamic traditions, Judaism, Christianity, and Islam. Because each of these major faith traditions issues a call to love one's neighbor, the course will consider how this call is lived out in modern multi-faith communities in which it is necessary to listen, learn, live, and work together. Students are encouraged to develop an appreciation for the role of religion in their lives, communities, and world. Special attention to how Christianity, the animating faith of Houghton College, has impacted the world and how it can be helpfully incarnated in a pluralistic culture. Liberal Arts.

## REL 215 Islam: An Introduction

3-F21
An introduction to the beliefs and practices of Islam from a Christian perspective. Selected readings in the Qur'an and Hadith provide a foundation for understanding contemporary Muslims, Islam, and the different challenges that confront Muslims today. Emphasis on how Christians can thoughtfully engage with Islam and their Muslim neighbors.
REL 221 Eastern Religions
3-S21
Examines the history, beliefs, and practices of Hinduism, Buddhism, Daoism, and Confucianism. Special emphasis on the Christian encounter with these faiths. Liberal Arts.

## REL 222 New Religious Movements

3-F20
Examines the history, beliefs, and practices of Western (e.g., Jehovah's Witnesses, Mormons, Nation of Islam, Wicca) and Eastern new religious movements (e.g., ISKCON, TM, Soka Gakkai, Falun Gong). Special emphasis on the Christian encounter with these traditions. Liberal Arts.

## REL 231 Judaism

3-WSP
Examines in critical perspective the history and major beliefs of the Semitic religious traditions (Judaism, Christianity, and Islam). Special emphasis on the Christian encounter with Judaism and Islam. Liberal Arts.

## REL 260 Introduction to Islamic Foundations

 4-WSPMuhammad's life and writings are the foundations of Islam. The Islamic faith is appraised through a historical and primary source approach in which students read the entire Qur'an chronologically and a significant portion of the Hadiths. Students' mastery of Muhammad's life and Quranic vocabulary and a confident grasp of Quranic theology give them a strategic appreciation of Islamic
history and the present global Muslim community issues. Liberal Arts.
REL 322 History of Islamic Theology and Movements
3-WSP
Following the death of Muhammad, issues of theological orthodoxy and governmental orthopraxy flourished in a context of conflict and growth. Students 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 study the wide history of Islamic thought up to the OPEC crisis of 1973-74. Students gain confidence in grasping and discerning the many variants within the so-called unified Islamic ummah. Liberal Arts.

## REL 442 Globalization and Islamization

 4-WSPAmong the three most vibrant international movements in the emerging $21^{\text {st }}$ century are Christianity, Islam, and globalization, and the most contested nexus is in the technosecularized cities of the world. Students 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 to recent international clashes between globalized secularism and Muslims, various political and Christian responses, and the need for a Christcentered confident response to both globalization and Islamization. Liberal Arts. Prerequisite: INCL 260
SOC 101 Introduction to Sociology: The Sociological Imagination
3-WSP
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. Fulfills half of General Education Social Sciences requirement. Liberal Arts.
SOC 191, 192, 291, 292, 391, 392, 491, 492 Independent Study
$1,2,3$, or 4-F or S
Liberal Arts.
SOC 195, 295, 395 Special Topics in Sociology 2-4-WSP
Topics offered according to interest and demand. Topics include Introduction to Social Work and Race and Ethnicity. Liberal Arts.
SOC 218 Social Psychology
3-F
Social behavior from a sociological and psychological perspective, examining the interaction of behaviors of individuals in groups. Topics: prejudice, group processes, leadership, conformity, conformity, and attitude change.
SOC 231 Criminology
3-WSP
Consideration of elements of the criminal justice system. Discussion of dilemma of promoting social order while protecting individual rights. Liberal Arts.
SOC 237 Introduction to Marriage and Family Studies
3-S21
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 lifecycles. Liberal Arts.
SOC 243 Cultural Anthropology 4-F\&S
Cultural and social aspects of human behavior; comparison of cultures. Fulfills half of General Education Social Sciences and half of Changing World requirement. Liberal Arts.
SOC 293 East African Anthropology
4-S

Intensive study of East African ethnic populations-their beliefs, behaviors, work, and societies. Lectures, which include foundational anthropological theory as well as ethnic descriptions, are augmented by frequent class discussions; field trips; and interactions (including homestay) with Dorobo, Maasai, and other local East African ethnic groups. Sociology, Intercultural Studies elective credit. Houghton East Africa. Liberal Arts.
SOC 297 Special Topics in Family Studies

## 2-4-WSP

Topics offered according to interest and demand. Liberal Arts.

## SOC 305 Introduction to Sustainable

## Community Development

4-WSP
Explores how knowledge of ecological systems, globalization, political economy, and the biblical worldview come together in the pursuit of development that is communityminded, just, and ecologically sustainable. Through readings, lectures, and fieldtrips, students study complex issues in sustainable development such as the nexus of poverty, the environment and justice, and the many practical challenges associated with sustainable community development. Major/minor credit for Sociology, Intercultural Studies elective, optional elective for Development concentration or general elective. 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; and methods of data analysis. Recommended for junior year after completing PSY 309. Liberal Arts.

SOC 315 Human Ecology
4-S
Integrates knowledge from several disciplines and seeks to combine the social and natural sciences. Theory is interwoven with basic concepts, and emphasis is on how humans view and interact with the natural environment. Themes and topics studied include control, complexity/simplification, sustainability, adaptation, place, mechanization, efficiency/inefficiency, centralization/decentralization, resilience, parks, economies of scale, specialization/diversification, development, and poverty. These themes are discussed in relation to five basic human societies: hunting and gathering, pastoral, agricultural, industrial, and global. Collaborative research is undertaken depending on the opportunity. Houghton East Africa. Fulfills part of General Education Changing World requirement. Liberal Arts.
SOC 327 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.

## SOC 335 Diversity in the Workplace

3-WSP (Houghton Online)
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. Liberal Arts.
SOC 350 Culture Change and Globalization
4-F20
Globalization is spreading rapidly and is causing significant culture change to all
societies from traditional to folk to contemporary. Focusing on historical and current case studies, this course makes students aware of current cultural changes and gives them the theoretical knowledge to understand, empathize with, and assist people wrestling with culture change. Fulfills part of General Education Changing World requirement. Pre- or Corequisite: SOC 243. Liberal Arts.

## SOC 362 Gender Relations

## 3-WSP

Introduction to gender relations focusing on gender roles over the lifecycle. Includes multicultural perspectives on gender relations. Liberal Arts.

## SOC 394 Internship in Family Studies

 1-6-F\&SAn optional supervised experience in a family studies setting integrating theory with professional practice. By application only through the department. Liberal Arts.

## SPAN 101 Spanish Level 1

3-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. Fulfills part of General Education Changing World requirement. Liberal Arts.

## SPAN 102 Spanish Level 2

3-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. Fulfills part of General Education Changing World requirement. Liberal Arts.
SPAN 191, 192, 291, 292, 391, 392, 491, 492 Independent Study
1, 2, 3, or 4-WSP
Liberal Arts.
SPAN 205 Intermediate Spanish
3-F
Bridges the gap between beginning-level and advanced courses. Attention to vocabulary, reading strategies, writing skills, and conversation. Grammar review and enhancement. Fulfills part of General Education Changing World requirement. Liberal Arts.
SPAN 146 Aspects of Costa Rica: Language, Culture and People
3 or 4-May
(Fulfills SPAN 102) Three-week servicelearning experience in Costa Rica hosted in the homes of nationals. Thirty hours of intense language instruction in the San José area. Opportunities for service, worship, relationship-building, and excursions present a broad picture of life in Latin America. Cost: check with professor. Fulfills part of General Education Changing World requirement. Liberal Arts. Prerequisite: SPAN 101 or equivalent
SPAN 246 Aspects of Costa Rica: Language, Culture and People
3 or 4-May
(Fulfills conversational language requirement for Intercultural Studies majors and serves as an elective for the Spanish major or minor.) A three-week service-learning experience in Costa Rica hosted in the homes of nationals. Thirty hours of intense language instruction in the San José area. Opportunities for service, worship, relationship-building, and excursions present a broad picture of life in Latin America. Cost: check with professor. Fulfills part of General Education Changing World
requirement. Liberal Arts. Prerequisite: SPAN 102 or equivalent

## SPAN 301 Spanish Communication

 3-SExercises, dialogue, readings, discussions, and oral practice improve ability to comprehend and communicate in Spanish. Fulfills part of General Education Changing World requirement. Liberal Arts. Prerequisite: SPAN 205 or equivalent or permission
SPAN 307 Hispanic World Cultures
3-S21WSP
Introduces the past and present civilization and culture of Spain and Spanish-American civilization and culture from pre-Columbian times to the present. Fulfills part of General Education Changing World requirement. Liberal Arts. Prerequisite: SPAN 301 or equivalent or permission
SPAN 308 Survey of Hispanic World Literature 3-S22WSP
An introduction to key literature from Spain and Spanish America. Fulfills part of General Education Changing World requirement. Liberal Arts. Prerequisite: SPAN 301 or equivalent or permission
SPAN 310 Spanish Conversation and Reading

## 3-F21WSP

Presents topical or thematic areas of interest related to today's Hispanic World cultures. May be repeated when offered with a different subtitle. Fulfills part of General Education Changing World requirement. Liberal Arts. Prerequisite: SPAN 301 or equivalent or permission
SPAN 346 Aspects of Costa Rica: Language, Culture and People
3 or 4-May
(Fulfills conversational language requirement for Intercultural Studies majors and serves as an elective for the Spanish major or minor.) A three-week service-learning experience in Costa Rica hosted in the homes of nationals. Thirty 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. Cost: check with professor. Fulfills part of General Education Changing World requirement. Liberal Arts. Prerequisite: SPAN 205 or equivalent
SPAN 350 Advanced Spanish Grammar and Composition
3-F20
A comprehensive course in structure and usage. May be taken via Study Abroad with advisor's permission. Fulfills part of General Education Changing World requirement. Liberal Arts. Liberal Arts. Prerequisite: SPAN 301 or equivalent or permission
SPAN 295, 395, 495 Special Topics
1-3-WSP
Topics not covered in depth elsewhere in the curriculum: Latino migration to the U.S., human rights in Latin America, the AfroHispanic diaspora, and popular culture in the Hispanic world. Liberal Arts. Prerequisite: SPAN 301 or equivalent or permission

## SPAN 481 Spanish Internship

1, 2, 3, or 4-WSP
Experience in a college class. Assist a professor in an intermediate class three days a week. Introduction to prevailing methods of instruction. Priority to upperclassmen and education students. Liberal Arts. Prerequisite: Spanish major, instructor permission

## SPAN 485 Senior Capstone: Spanish

1-F\&S
Final course in the major allowing students to demonstrate mastery of Spanish and integration of their knowledge of related cultures, history, literature, and linguistics. Arranged with advisor. May be done as an independent study in conjunction with a lower-level course (particularly for Education majors) or arranged in conjunction with the Senior Seminar of a second major. Liberal Arts.

Prerequisite: Senior, department chair approval
SPAN 496 Honors in Spanish
4-WSPS
Liberal Arts.

## SRWM 104 Backpacking

1-WSP
Develops skills and knowledge in backpacking and provides the opportunity for students to enjoy the outdoors. Two weekend overnight backpacking trips take place during the semester. This course has a fee.

## SRWM 105 Wellness for Life

1-F\&S
Examines the many dimensions of wellness. Students participate in assessments of their overall health status and practice the basic principles of setting fitness programs. Includes a combination of lectures, assessments, and activity. Fulfills General Education Wellness requirement. This course has a fee.

## SRWM 109 Highlander Adventure Program

2-Special
Two to three days on the initiatives course and a seven-day trip into the wilderness. Develops skills in canoeing, rock climbing, rappelling, and backpacking. Open only to incoming firstyear and transfer students. Offered 10 days before fall semester. Fulfills General Education Wellness requirement. This course has a fee.

## SRWM 120 Lifetime Sports

1-F\&S
Assesses health-related physical fitness components and incorporates prescription components through the venue of lifetime sports. Includes activities such as skiing, canoeing, weight training, tennis, and hiking. Fulfills General Education Wellness requirement. This course has a fee.

## SRWM 123 Canoeing

0.5-F/S

Physical coordination and conditioning; basic skills; appreciation for physical activity and
lifetime fitness in Christian life. This course has a fee.

## SRWM 124 Cross-Country Skiing

0.5-S

Evaluate personal health-related physical fitness components and incorporate exercise prescription. Develop basic skills and an appreciation for physical activity and lifetime fitness in Christian Life. This course has a fee.

## SRWM 131 Rock Climbing

0.5-S

Physical coordination and conditioning; basic skills; appreciation for physical activity and lifetime fitness in Christian life. This course has a fee.

## SRWM 220 Adventure Sports

2-Mayterm
Experiential learning through adventure sport(s) activity (backpacking, rock climbing, canoeing, coastal kayaking, and/or rafting); teaching experience and leadership development, fitness training, technical skills, personal and spiritual growth, and environmental stewardship. Fulfills General Education Wellness Requirement. This course has a fee.

## SRWM 221 Sport, Recreation, and Wellness Management

3-F
Introduction to the primary principles, practices, theories, and concepts of sport, recreation, and wellness management. Overview of the various career opportunities within these areas.

## SRWM 227 Sports Ministry: The Integration of Faith and Sport

3-WSP
Students develop an understanding of the sports culture and learn how the gospel can be effectively communicated within this context. They consider sociological factors, historic developments, and the biblical text to build a theological foundation for the practice of sports ministry. Church and parachurch
organizations are examined as well as evangelism and discipleship methodologies. Students practice communication skills within sports ministry settings.
SRWM 227 Sports Ministry: The Integration of Faith and Sport
3-WSP
Students develop an understanding of the sports culture and learn how the gospel can be effectively communicated within this context. They consider sociological factors, historic developments, and biblical text to build a theological foundation for the practice of sports ministry. Church and parachurch organizations are examined as well as evangelism and discipleship methodologies. Students practice communication skills within sports ministry settings.
SRWM 229 Outdoor Leadership Training 3-WSP
Explores leadership, as it applies to outdoor adventure programming, predominant in the development of current practices in adventure education. Experiential course includes basic soft and hard skills - which are generic to most adventure education programs: facilitation techniques; initiative activities, ropes course work, and backcountry wilderness skills. This course has a fee.

## SRWM 237 Holistic Health

3-WSP
Explores topics of personal health and wellbeing, public health, interpersonal relationships, and current issues globally. 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. Includes a combination of lectures, assessments, and activity. Fulfills General Education Wellness requirement.
SRWM 240 Camps and Summer Programs 3-WSP

Preparation for management and leadership in camp environments and summer programs. Considers staffing management, retention, burnout, history, and philosophical perspectives of the camp movement in the U.S., and various developmental outcomes through participation.

## SRWM 241 Recreation and Tourism

 2-WSPAnalysis of private, commercial, and industrial recreation fields including tourism, focusing on economic impact, marketing strategies, consumer protection, and career opportunities.

## SRWM 270 Global Sports Culture

 3-WSPNelson Mandela has suggested that "sport is a force that mobilizes the sentiments of a people in a way that nothing else can." Students examine sport and social change from a global perspective. An introduction to sport as it relates to nationalism \& politics, religion \& spirituality, race \& racism, disability \& advocacy, violence \& crime, media \& cultural relations, justice \& social inequities, and gender \& sexuality. How is sport utilized as a tool for good or evil in today's world? Liberal Arts.

## SRWM 275 Methods \& Administration of Sports Ministry

3-WSP
Students evaluate sports ministry strategies within local church, parachurch, missions, and educational settings. They review and develop curricula and programs for use within these settings. Students develop communication skills for a sports audience and examine evangelism and discipleship methods.

## SRWM 295, 395, 495 Special Topics

## 1, 2, 3, or 4-WSP

Depending on interest, demand, and faculty availability and expertise, courses are offered to allow students to consider issues and
aspects of physical education not covered in other courses.
SRWM 300 Program Planning and Evaluation 3-S

Preparation for leadership in recreation programming: leadership styles and theory; principles and methods of program development; and using fundamental leisure philosophy and theory to assess needs, plan, develop, implement, and evaluate recreational programs.
SRWM 301 Outdoor and Experiential Education
3-WSP
Development and use of experiential education instructional techniques to connect with the natural world. Emphasis on building a basic information base, compiling teaching aids, and implementing teaching strategies.

## SRWM 305 Sports Ministry Field Practicum

 2-WSPA supervised field experience in a sports ministry setting: church, camp, mission organization, or parachurch sports ministry. The student relates theory to practice through a cooperative learning relationship among the ministry organization, student, and advisor.
SRWM 306 Principles of Coaching \& Sport Management
3-S22
Principles and techniques of coaching, systems used in coaching, and the development of a coaching system. An in-depth study of the athlete, coach, and 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.

## SRWM 308 First Aid and Safety

1-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 given upon satisfactory completion of all requirements. This course has a fee.

## SRWM 313 Sports Marketing \&

 Communication3-WSP
Examines the unique application of marketing within a sporting environment. Topics cover the marketing both of sport and sport products and of non-sport products through sports. Addresses the theory and application of the traditional marketing concepts of marketing planning, market segmentation and identification of target markets, sport marketing mix, branding, sponsoring and licensing. Special attention to the effective application of media and public relations and the growing landscape of social media and digital communication in the sport industry.
SRWM 314 Organization \& Management of Athletics
3-WSP
Theories, philosophy, and systems of management; program development, finance, purchasing and care of equipment, public relations, facility and personnel management, and legal liability.
SRWM 315 Psychosocial Aspects of Sport 3-WSP
Behavioral and cognitive development, learning theories, and the effects of motivation and cultural/societal factors on performance in athletics. Liberal Arts.

## SRWM 325 Certified Personal Trainer

2-WSP
Designed to give students the knowledge and skills to develop exercise prescription and programming for clients related to personal health and fitness. Students develop an understanding of functional anatomy, exercise physiology, health and physical fitness, injury prevention, and nutrition. Students
successfully completing this course are eligible to take the Personal Trainer certification exam with the National Council of Strength and Fitness (NCSF). Students work through content, practice quizzes, and practical exams using the NCSF online learning platform with review sessions. Prior knowledge of human systems, anatomy, and physiology is recommended. This course has a fee.
SRWM 326 Strength \& Conditioning 3-WSP
Designed to give students the knowledge and skills to develop programming and training techniques specific to advanced sport and athletic performance. Students develop an understanding of concepts in sport metabolism, biomechanics, and nutrition. Students successfully completing this course are eligible to take the Strength and Conditioning Coach exam with the NCSF. Students work through content, practice quizzes, and practical exams using the NCSF online learning platform with review sessions. Prior knowledge of human systems, anatomy, and physiology is recommended. This course has a fee.

## SRWM 327 Sports Nutrition

3-WSP
Designed to give students the knowledge and skills to develop an understanding of nutritional concepts relating to micro/macronutrients and supplementation, and be able to apply these nutrition concepts in conjunction with exercise to improve athletic performance. Students successfully completing this course are eligible to take the Sports Nutrition Specialist exam with the NCSF. Students work through content, practice quizzes, and practical exams using the NCSF online learning platform with review sessions. Prior knowledge of human systems, anatomy, and physiology is recommended. This course has a fee.

SRWM 401 Natural Resource Management

3-F21
Investigating Christian environmental ethics, identifying and protecting biologically sensitive areas, rehabilitating damaged areas and resources, sound ecological practices, controlling user behavior, site problems, and resource management plans.

## SRWM 402 Wilderness Recreation \& Management in Alaska

3-WSP
An overview of wilderness recreation and management in the context of Alaska. Recreational and legal definitions of wilderness are defined; wilderness lands in Alaska are surveyed; and current case studies of wilderness management plans for federal, state, and native corporation lands are reviewed. Includes field trips to the WrangellSt. Elias National Park, Chugach National Forest, Tetlin National Wildlife Refuge, and Tanana State Forest. Part of Arctic Studies Program.

## SRWM 481 Senior Capstone Seminar

2-S
Informed discussion of significant and contemporary concepts and issues and the relationship within liberal arts and the Christian faith. Includes development of an individual research or group project on some aspect of the discipline. Required for all Sport, Recreation, and Wellness Management and SRWM - Equestrian Management \& Performance majors.
SRWM 486, 487, 488 Practicum I, II, III 1,1,1-F\&S
Applying principles and methods of sport, recreation, and wellness management, learning through practical experience with local on-campus and/or community participants developing work-based career preparation. A minimum of 50 work hours required. Must be taken in order.
SRWM 489 Internship/Field Placement
3-5-S, Summer

Professional field experience in the area of emphasis; the student relates theory to practice in a cooperative effort among agency, student, and advisor. Minimum five-week, 150-hour internship/field placement equals 3 credits. Each additional 50 hours equal 1 additional credit. Permission of instructor required.

## SRWM 496 Honors in Sport, Recreation, and

 Wellness3-WSP

## STEM 140 Reason \& Abstraction

2-F\&S
Explores topics in mathematics, computing, or data science with a focus on historical context and/or applications to other disciplines and real-world problems. Students develop effective mathematical/computational thinking and communication skills through open-ended inquiry and explore how these skills can inform and enrich a Christian life. Cultivates an appreciation for the ways in which reasoning and abstraction contribute to problem solving and emphasizes conceptual understanding rather than computational proficiency. Fulfills General Education Mathematics requirement. Liberal Arts.

## STEM 141 Science as a Human Endeavor

 2-F\&SAn exploration of what science is and how it changed our understanding of who we are and our place in the universe. This question is explored as it relates to a topic of a particular science discipline. One lecture, three lab hours each week. Fulfills half of General Education Natural Sciences requirement. Liberal Arts. This course has a fee.

STEM 142 Science and Society 2-F\&S
Study of the interrelationships among science, society, and Christianity. Analysis of political and social topics in which science plays a critical role in contemporary life. One lecture, three lab hours each week. Fulfills half of

General Education Natural Sciences requirement. Liberal Arts. This course has a fee.
STEM 371 Career Seminar
1-S
Preparation for entrance into a science, technology, engineering, or mathematics (STEM) career. Topics include curricula vitae preparation, interviewing skills, career options, and the role of faith in STEM careers. Prerequisite: BIOL 152, CHEM 152, CSCI 336, MATH 182, or PHYS 152
THEL 111 College Christian Apologetics 3-WSP
Examines historical claims and questions raised by the Christian faith. Students explore and assess various approaches to making theological responses to issues within the Church and culture that challenge or otherwise affect Christianity. Taught at participating high schools to selected, qualified students. Can be used toward a Theology major or minor.
THEL 191, 192, 291, 292, 391, 392, 491, 492 Independent Study
1, 2, 3, or 4-WSP
Liberal Arts.
THEL 209 Introduction to Christianity 3-F\&S
Introductory survey of the main beliefs and practices that constitute the Christian tradition. Christianity is approached in a way that overcomes the traditional division between doctrine and practice. Explores the biblical, theological, historical, ethical, and spiritually formative aspects of the Christian faith. Aims to help students develop a personal theology and life perspective informed by Christian faith and Christian spirituality. Liberal Arts. Prerequisite for all other THEL courses. Fulfills General Education THEL 209 requirement. Prerequisite: BIBL 101 THEL 210 Theology of Creation 3-WSPF21

Explores the notion of creation from a biblical and theological perspective and examines several contemporary Christian responses to the environmental crisis. Prerequisite: THEL 209
THEL 211 Introduction to Theology 3-F21F
An introduction to basic concepts of and methods used in theology. Stands on its own as a basic introduction to theology but also prepares students well for further work in systematic theology. Prerequisite: THEL 209
THEL 215 Christian Apologetics
3-WSP
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 are considered. Prerequisite: THEL 209

## THEL 221 History of Christianity 1

3-F21
Examines the development of North American and European Christianity from the earliest centuries of Christian history until the present. Attention 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. Prerequisite: THEL 209

## THEL 222 History of Christianity 2

3-S22
Examines the development of South American, African, and Pacific Christianity from the earliest centuries of Christian history until the present. Attention to the lives of prominent men and women as well as the movements in the church in various regions. Connections with current theological issues and church practice will be considered. Liberal Arts. Prerequisite: THEL 209

THEL 230 Building Shalom: Justice, Love, and the Christian Life
3-F20
Examines biblical, theological, and philosophical ideas related to the practice of justice. Particular attention to the intersection of justice and love in Christian endeavors to address real-life issues. Liberal Arts. Prerequisite: THEL 209
THEL 232 Poverty, Wealth, and the Christian Gospel
3-S22WSP
Addresses issues of poverty and wealth through examination of biblical and theological texts with an eye toward faithful Christian responses. Prerequisite: THEL 209
THEL 240 Ethnicity, Race, and the Church 3-S21
Using biblical and theological lenses, examines how well churches in the U.S. have navigated issues of race, ethnicity and equality in society and within church structures. Includes a focus on the development of African-American churches. Prerequisite: THEL 209

## THEL 241 The African-American Church Experience

3-WSP
Examines spirituality within the context of the African-American religious experience, giving an overview of the historical, sociological, political, economic, and spiritual tenets of African-American religion. We study the theology and content of African-American worship in the Black church and its impact on the climate of African-American communities. Explores worship traditions and the distinctive contributions of the Black church to the moral and spiritual fiber of America.
THEL 251, 252 Emmanuel Scholars $0-2-F \& S$
This is the curricular component of the Emmanuel Scholars program. Students meet weekly for a seminar discussion of important works related to the intersection of the

Christian faith, culture, and vocation. Liberal Arts. Prerequisite: THEL 209
THEL 255 Reason and Religious Belief 3-F21
Introductory course in the philosophy of religion. A number of central topics are surveyed with special focus on religious epistemology, the relationship between faith and reason, and the rationality of religious belief. Also examined are major theistic arguments, the problem of evil, divine attributes, and providence. Liberal Arts. Prerequisite: THEL 209
THEL 256 The Nature of God
3-S21WSP
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. Prerequisite: THEL 209
THEL 265 Christianity, Postmodernism, and Beyond

## 3-WSP

Explores the relationship between Christian faith and practice and postmodern culture. Primary and secondary readings drawn from a variety of disciplines and sources explore the implications of postmodernism for the Church, individuals, the media, and popular culture. Liberal Arts. Prerequisite: THEL 209

## THEL 294 Liturgy, Space, \& Time

3-WSPF21
Efforts to help Christians develop their faith often focus on delivering theological content (i.e., catechesis), helping the believer to develop criteria to distinguish right from wrong, and fortifying the believer with encouragement to choose the right. However, scant attention is paid to noncognitive ways of helping Christians perceive their basic realities differently. This course pays attention to three of these noncognitive means: ritual liturgical practice, the arrangement of space, and the
arrangement of time. Liberal Arts.
Prerequisite: THEL 209
THEL 295, 395, 495 Special Topics
1, 2, 3, or 4-WSP
Liberal Arts. Prerequisite: THEL 209
THEL 310 Women, Men, and the Image of God 3-WSP
Attention to Scriptural and theological models for understanding the nature of the human being as well as the ethical and social implications of a theology of human equality. Prerequisite: THEL 209
THEL 313 Systematic Theology
3-S22
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. Prerequisites: THEL 209, THEL 211
THEL 315 Wesleyan Tradition
3-F21
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. Prerequisite: THEL 209

THEL 316 Worship in the Church
3-F20S21
An introduction to liturgical theology including explorations into the biblical and theological foundations for worship and the sacramental life of the Church. Special emphasis on the task of contextualization in planning worship services and examining the pastoral role in the Church's liturgical life and witness. Prerequisite: THEL 209

## THEL 320 Spiritual Formation

3-S212
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 on the role of the classical spiritual disciplines in the formation of character. Liberal Arts. Prerequisite: THEL 209
THEL 327 Church, Mission, and Culture 3-S21
Seeks to define an understanding of the Church in relation to the mission of the triune God in and to all of creation. A biblically and theologically informed ecclesiology, integrated with the disciplines of missiology and sociology, shapes the traditional concerns of leadership, Church order, and pastoral vocation. Prerequisite: THEL 209
THEL 333 Major Figures in Theology
3-WSPF21
In-depth study of one or more figures in Christian theology with emphasis on primary source material for examining the theologians in the context of their lives and times. Liberal Arts. Prerequisite: THEL 209

## THEL 334 Studies in Theology

3-WSP
Topics of current theological interest. Specific schools of theology, doctrines, or theological trends are considered. Liberal Arts. Prerequisite: THEL 209
THEL 337 Theological Foundations of the Family
3-WSP
Study of major conceptual designs for family. Emphasizes 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. Prerequisite: THEL 209
THEL 354 The Problem of Evil
3-S22WSP
In-depth exploration of philosophical thought on the question of whether and how belief in a good deity is compatible with the great evils we see in the world around us. Students study the history of the topic before turning to its
treatment in contemporary philosophy of religion. Liberal Arts. Prerequisite: THEL 209

## THEL 355 Aquinas

3-WSP
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. Prerequisite: THEL 209
THEL 375 Kierkegaard: A Man for All Disciplines
3-WSP
Reading seminar on some key works of the "melancholy Dane," including (for example) "Either/Or," "Fear and Trembling," "The Sickness unto Death," "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. Prerequisite: THEL 209
THEL 385 Issues in Philosophical Theology 3-WSP
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, and Faith. The specific issue(s) to be considered are identified each time the course is scheduled. Repeatable when topics are diverse. Liberal Arts. Prerequisite: THEL 209
THEL 389/489 Internship in Theology 1-6-F\&S
Supervised field experience in a church or parachurch agency combining academic work with practical and professional responsibilities and relationships. Prerequisites: CRFM 325, MIN 210 or permission from the Christian Ministries advisor

THEL 482 Senior Capstone: Seminar in Theology
3-S
A senior capstone colloquium required of all students with a major in Theology. Liberal Arts. Prerequisite: THEL 209
THEL 496 Honors in Theology
3-4-S
Liberal Arts. Prerequisite: THEL 209
WRIT 101 Writing in the Liberal Arts 3-F\&S
Theme-based seminar course in close reading, critical thinking, and the process of engaged writing. Techniques of expression, analysis, and response. Fulfills General Education WRIT 101 requirement. Liberal Arts.

## WRIT 111 College Writing

3-WSP
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 selected, qualified students. Liberal Arts.
WRIT 211 Narrative and Personal Essay 3-S
Study of informal essay based on personal experience. Emphases on descriptive and narrative techniques, craftsmanship, and style. Fulfills General Education WritingEnriched course requirement. Liberal Arts.
WRIT 214 Literary Non-Fiction
3-F
Writing across the range of forms available to the creative nonfiction writer, such as expository and persuasive writing and literary journalism. Emphasis on craft, personal presence, and writing for varied audiences. Fulfills General Education Writing-Enriched course requirement. Liberal Arts.

## WRIT 216 Print Journalism I

3-F

Principles and techniques of journalism with emphasis on print media. Instruction in writing news, features, editorials, and reviews. Overview of journalistic ethics including privacy and libel law. Liberal Arts.
WRIT 217 Professional Writing
3-S
Workshop-oriented course giving students practice in writing the kind of documents one might write in a professional setting, such as fundraising letters, press releases, social media posts, and reports. Fulfills General Education Writing-Enriched course requirement.

## WRIT 218 Writing about Literature and Culture

3-F
Analytical writing about literary texts and cultural artifacts. Focus on developing critical reading skills for a variety of genres including but not limited to poetry, fiction, drama, film, and popular culture. Introduction to the vocabulary and practices of the discipline of English. Fulfills General Education WritingEnriched course requirement. Liberal Arts.
WRIT 291, 292, 391, 392, 491, 492
Independent Study
1, 2, 3, or 4-WSP
Liberal Arts.

## WRIT 301 Fiction

3-F
Techniques of the traditional short story. Fulfills General Education Writing-Enriched course requirement. Liberal Arts.

## WRIT 302 Poetry

3-S
Techniques of open and closed verse. Liberal Arts.

## WRIT 304 Screenwriting

3-WSP
Techniques in writing screenplays. Emphasis on dramatic structure, cinematic rendering, story concept, and characterization. Liberal Arts.

## WRIT 307 Writing about Spiritual Experience

 3-WSPDisciplines of the spiritual journal, writing and evangelism, the meditative essay, and devotional writing. Fulfills General Education Writing-Enriched course requirement. Liberal Arts.
WRIT 309 Writing Flash Fiction and Nonfiction
3-WSPF20
The craft of writing very short fiction and nonfiction prose stories between 300 and 1000 words long. Reading and analysis of examples of these kinds of very concise prose genres. Liberal Arts.
WRIT 311 Poetry, Liturgy, and Worship 3-WSP
Techniques of poetry dedicated to worship in its several forms. Liberal Arts.

## WRIT 312 Writing for Social Change

 3-WSPStudy and practice in the various forms of writing dedicated to social awareness and action. Fulfills General Education WritingEnriched course requirement. Liberal Arts.

## WRIT 316 Print Journalism II

 3-WSPPrinciples and advanced techniques of journalism with an emphasis on print media. Instruction in investigative reporting and longform feature stories. Research-based editorial writing and longer reviews. Liberal Arts. Prerequisite: WRIT 216

## 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; and Writing Center theory, practice, and research. May fulfill General Education Writing-Enriched course requirement. Liberal Arts.
WRIT 325 Writing Reviews

3-WSP
The craft of writing reviews and criticism for print and online venues. Subjects can include book, film, theater, concert, recorded music, art exhibits, restaurants, and product reviews. Addressing specific elements of craft such as writing for an audience, venue, limited foci, objectivity and subjectivity, humor, critical jargon, as well as the role and responsibility of the critic. Liberal Arts.
WRIT 330 Writing Center Theory and Practice 1-3-F

Study of the best practices in writing center consultation, including training on how variables such as demographics, language acquisition, schooling, and learning styles influence tutoring dynamics. Practice in sample writing center scenarios and reflection on the student's experience as a writing center consultant. Required for students who have positions in the Writing Center. Instructor permission required.
WRIT 331
1-S
Research into best practices of Writing Centers culminating in a project to be presented at a conference and/or submitted for publication. Offered as an option to Writing Center consultants. Instructor permission required.
WRIT 401 Workshop
3-S
Life experience, project, and task-centered integrative capstone. Liberal Arts.
WRIT 403 Internship
3-WSP
Opportunities for practical off-campus experience. Workshop alternative with permission of department chair. Liberal Arts.
WRIT 496 Honors in Writing
3-S
Liberal Arts.
WSP 220 Contemporary Techniques for Worship

2-WSP
A worship methods class that deals with principles and processes of building a music program for the traditional and nontraditional worship service. Attention to
pedagogy of vocal groups for adult singers. Students also learn the development, role, and repertoire of large and small ensembles in the worship service. This course has a fee.

## Student Life Information

## 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.

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 by fostering a Christ-centered, multicultural, empowering, and educationally purposeful community that develops students holistically by supporting, celebrating, and sharpening them.

For a complete listing of Student Life Policies, see the Student Guide.

## Counseling Services

The Counseling Center at Houghton College provides personal counseling to all students desiring this service. The Center has professionally trained counselors to help you with high stress levels, loneliness, depressed or sad mood, lack of concentration, poor eating habits, difficulty adjusting to new surroundings, relationship problems, and worries about all these and other things. Appointments can be made to meet with a counselor by visiting the Center located on the first floor of the Chamberlain Building. Counseling services are confidential. For more information, please visit the Counseling Center website.

## The Office of Vocation and Calling

The Office of Vocation and Calling helps students and alumni explore their vocational calling and develop their market-readiness. For more information, please view https://www.houghton.edu/students/center-for-student-success/vocation-and-calling/.

## Intercultural Students Office

The Intercultural Student Programs Office is devoted to helping missionary kids, "third culture kids," and international students have a successful experience at Houghton. Call today at 800-777-2556 for more information. Please also visit the Intercultural Student Programs website to learn more.

## 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. For more information, visit the Residence Life website.

## 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 9 a.m. to 1 p.m. Monday through Friday on class days.

For all fire, ambulance or police emergencies, call 911 first, then call Safety and Security immediately.

## 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,
- programs to prevent crime,
- enforcement of college policies and the law,
- a program of communication with the community, and
- a coordinated plan to assist with emergencies.


## 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 24 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 vehicles immobilized or towed at the owners' expense. All first-year 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 $\$ 50$ to $\$ 240$ 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 prohibited weapons that must be stored in the Safety and Security Office immediately upon their arrival on campus. They can then be checked out for appropriate use.

- Any weapon powered by pump action, including BB guns or "air soft" guns
- Any weapon powered by compressed air or $\mathrm{CO}_{2}$ cartridge including all paintball guns
- Any firearm, including black powder weapons
- Any blowgun or similar weapon
- Any type of bow (archery)
- Any martial arts weapon (i.e., nun chucks, 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 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 fireworks of any kind.

## Illegal Activity

Policy for Reporting Criminal Actions or Other Emergencies:
Each student and employee of Houghton College is expected to promptly report any criminal actions or other emergencies to the appropriate authorities. The Campus Safety and Security Office, Houghton Volunteer Fire 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 halls. Appropriate authorities will act immediately on any report of criminal action or other emergencies; investigate, categorize, and report on each instance; and involve outside police agencies as appropriate.

## Building Hours <br> Pertinent building hours follow:

The Campus Center is open 5:30 a.m. until 3:00 a.m.
The academic buildings (Science, Chamberlain Center, Music, Stevens Art Studio, and Wesley Chapel) are open 7:00 a.m. till midnight Monday through Saturday and 5:00 p.m. till midnight on Sunday.

The Kerr-Pegula Fieldhouse and Nielsen 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. Motorized vehicles (including but not limited to motorized scooters, electric bicycles, mopeds, and hoverboards) are not allowed on college sidewalks or in college buildings. Motorized wheelchairs for those with need are, of course, authorized. 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 areas with limited visibility.
- Cars and other motorized vehicles (aside from emergency and authorized vehicles) are not permitted on campus sidewalks at any time.
- Houghton College will occasionally allow trick riding in limited areas at the discretion of the Safety and Security Office. Trick riding is only permitted with the prior approval of the Safety and 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.
- Runners along Routh 19 should be extremely cautious. 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:

1. Arcade (tunnel) through the Center for the Arts
2. Walking path between Stevens Art Studios and Centerville Road
3. Walking path from the Campus Center to Rothenbuhler (including past the Rothenbuhler bridge and the path toward the Fire Hall parking lot)

## Spiritual Life

Spiritual Life at Houghton is designed to create a rhythm of biblically based worship practices that sustains our life together and helps students, faculty, and staff encounter God and live deeply Christian lives.

The main conduit for this is chapel. Chapel meets Mondays, Wednesdays, and Fridays from 11:05 to 11:45 a.m. Students, faculty, and staff join together to worship through various types of song and hearing the Word of God read and preached. Speakers come from both on and off campus, and the music is quite varied, ranging from traditional hymnody to our chapel house band to gospel music to contemplative piano/guitar/cello music. Students are required to attend $2 / 3$ of chapel services, but we encourage students to attend them all as a way of building reflection and worship into their day.

In addition, every day that classes meet, we have Morning Prayer at 7:30 a.m. and Communion in the evenings. Morning Prayer is a way of opening the day to God and remembering our shared vocation as academics and Christians.

MercySeat, a student-led service of acoustic praise and worship music as well as Scripture reading, meets at 8 p.m. every day classes are in session. Morning and evening prayer and MercySeat are entirely optional.

Among the four services, there are 504 opportunities to gather for corporate worship every academic year in Houghton. Those who involve themselves often grow spiritually in significant ways.
On Sunday night, Koinonia (another student-led service of praise and worship music) meets.
Each year, Spiritual Life holds a few special events:
The Faith and Justice Symposium is held in January and encourages us to think about how our faith intersects with global issues.
New Vision Week is run by students in the student organization Global Christian Fellowship, usually in late October. We hear missionaries from around the world talk about what God is doing through missions work.
In addition, regular church attendance and participation in the life of a church community are strongly encouraged.

## 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.

The SHC staff desires to help students in any way possible 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 on how we can do it better.

## 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 onsite physician and is open Monday through Friday, 8:30 a.m. to 5 p.m.

## Services

Services available at the SHC include access to our nursing staff on a walk-in basis 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 services offered at the SHC. Appointments can be made with the College physician as needed following a nursing evaluation. Same-day appointments can often be accommodated. All onsite nursing and physician services (with the exception of admission physicals) are covered through an annual health and counseling fee. Charges for medications, laboratory testing, radiology, and other ancillary or offsite services are billed to the student's insurance company by the providing facilities, and, therefore, fees for those services may apply, according to the terms outlined in an individual's insurance plan. Referrals are made to local physicians, area specialists, or ER/hospital as needed.

## After Hours

When the SHC is closed, students with emergent health needs should contact 911. If the issue is not lifethreatening, local ER/urgent care facilities can be utilized. Directions are available on the health center webpage. Students should remember that they can continue to utilize their primary care doctor's on-call services for advice even while they are away at school. Many insurance companies also have nurse-staffed advice lines for after-hours questions. If questions remain, they 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, ACA-compliant Student Health Insurance Policy available to students who do not have insurance coverage otherwise. The College operates under an "opt out" policy, meaning that students will automatically be 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 SHC staff is available to answer questions and to assist in the filing of claims if needed.

## Medical Withdrawal

Medical withdrawal may be available for students believed to have physical or psychological illness and who need to leave the College because they can no longer make progress academically, their behavior is repeatedly disruptive to those in the community, or they pose a risk to themselves or others.

Medical withdrawal may also be granted to a student withdrawing between semesters or during the summer. Medical withdrawal is intended to enable students to maintain their status as students for purposes of health insurance, income taxation, financial aid, or other dependency-related matters. Students on medical withdrawal will not need to complete the full admission paperwork to return to campus. They will, however, need to complete a much shorter reapplication form for readmission.

Students can inquire about the medical withdrawal process by consulting with the Counseling Center, Health Center, or Student Life office staff.

## Immunization Requirements

In keeping with New York State's Public Health Law, all students are required to provide documented proof of immunization (two doses of vaccine) or immunity (by bloodwork) to measles, mumps, and rubella. In addition, state law requires that, if a student has not had a meningococcal vaccine within five years, a waiver form must be completed indicating a specific choice to either receive or decline the immunization. The SHC strongly recommends that students living in the dormitories receive this vaccine. An up-to-date tetanus/diphtheria immunization is also required. TB testing is left to the discretion of the student's physician based on risk profile. 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.

## Student Engagement Office

Exploring, competing, serving, playing, climbing, and worshiping-students in Houghton's unique setting enhance their central educational experience through participation in a vibrant community life. The Student Engagement Office seeks to enrich the student experience through various means. Some of our activities encourage service, some contribute to the educational mission of Houghton College, and others are for pure fun. Students can cultivate their leadership skills; participate in cultural, athletic, co-curricular, and spiritual opportunities; and join or lead one of $30+$ campus clubs and organizations (see below). In addition to a wide variety of options, Houghton's 1,300 acres of woodland offer rich opportunities for exploring on horseback, cross-country skis, and hiking trails. Our ropes and initiatives course is used for physical education and 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 Engagement Office to offer and oversee a comprehensive and vibrant array of experiences and opportunities that reflect the ethos of our academic community.

Campus Activities Board (CAB)
Coordinated by the Student Activities Office, CAB 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 take leadership roles. By being involved in co-curricular activities, students begin to clarify career goals and 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 among student organizations and faculty, staff, and administration. The SGA creates an atmosphere for the discussion of campus issues that contributes to the growth of each member of the student body.

## Student Clubs and Organizations

American Choral Directors Association - works to promote choral singing and helps to organize the development of choral groups of all types in schools and churches and on campus.
Allegany County Outreach - 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 the Coffee House, museum excursions, film showings, and communication with local artists.
Black Heritage Club - enriches the campus by providing events 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 on off-campus trips.
Equestrian Society - aims to create a Christian environment in which equestrian students work together to increase public awareness of their curriculum and its services and to enhance opportunities for students and community members.

Gadfly Society - aims to provide a forum for voluntary co-curricular endeavors of interest to Philosophy majors and minors and other philosophically minded persons and to promote awareness of the relevance of philosophical perspectives to issues.
Global Christian Fellowship - aims 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 by helping students express our Christian heritage through multicultural fellowship, celebrating the richness of gospel music. Our purpose is not only entertainment but also to expose the student body, faculty, and staff to this style of worship and praise.
Houghton Ballroom and Swing - offers Houghton students the opportunity to gather together to learn different styles of dance, appreciating the art of self-expression and movement. Going dancing with friends has never been so convenient and fun!
Intercultural Student Association - 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 who 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 as well as some life skills and to acclimate to the American educational system.
MercySeat Ministries - in submission to the Holy Spirit and the Word of God, 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 from 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) - dedicated to training the future leaders of the United States Army as well as good leaders for Christian service. Army Reserve Officer Training Corp (ROTC) is open to all Houghton College students without a commitment to the U.S. Army for the first two years. After two years (junior academic status), it is necessary to decide whether or not to serve in the U.S. Army.
Salvation Army Student Fellowship - seeks to encourage spiritual growth and commitment to Christian service.
Sigma Zeta - a math and science honor society that encourages and fosters the expansion 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 (SHRM) - Houghton College Chapter - aims to provide students with the opportunity to gain knowledge of and insight into the effective management of personnel in the field
of Human Resource Management through affiliation with the Niagara Frontier Chapter of the SHRM and the National SHRM organization.
Teachers for Today and Tomorrow - aims 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.

Publications

- Boulder (Yearbook)
- The Lanthorn (Literary/Art publication)
- Houghton STAR (Student newspaper)

Other Opportunities for Involvement
Artist Series - The Houghton College Artist Series features nationally and internationally known artists, groups, and productions that vary from year to year.
College Choir - The College Choir is composed of students chosen for musical and vocal competence by audition. Concerts are given each year, including an extended tour during spring break. The choir rehearses daily.
Houghton College Symphony - The Houghton College Symphony is made up of qualified instrumentalists. Representative selections of classical, romantic, and modern literature are performed. Membership is by audition and permission of the conductor.
Houghton College Wind Ensemble - The Houghton College Wind Ensemble provides students with the opportunity to perform significant symphonic band literature. Concerts are performed on and off campus. Membership is open to advanced wind and percussion players and is by audition and permission of the conductor.

## Faculty Listing

## Endowed and Honorary Chairs

## Mabel Barnum Davidson Distinguished Professor in Fine Arts

The Mabel Barnum Davidson Distinguished Professor in Fine Arts award was established in 1973 to celebrate and honor faculty members who show evidence of professional growth and development, demonstrate ability as effective teachers, and provide a clear statement and evidence of personal application of the philosophy of Christian liberal arts. The awardee is nominated from among colleagues and approved by the members of the area. The award carries with it a medallion to be worn at official convocations.

## Robert I. Davidson Distinguished Professor in History and Social Science

The Robert I. Davidson Distinguished Professor in History and Social Science award was established in 1973 to celebrate and honor faculty members who show evidence of professional growth and development, demonstrate ability as effective teachers, and provide a clear statement and evidence of personal application of the philosophy of Christian liberal arts. The award carries with it a medallion to be worn at official convocations.

## Horne-Blanchard Chair in Music

The Horne-Blanchard Chair in Music was established in 2014 through a generous gift from Dr. David and Mrs. Allene (Horne) Blanchard to honor and celebrate the gifts of music and teaching. Mrs. Blanchard, a Music
major at Houghton, graduated as a member of the class of 1957. A lifelong pianist and teacher, Mrs. Blanchard wanted to help others have the opportunity to study with gifted faculty as she had. The award carries with it a medallion to be worn at official convocations, funding for the faculty member's salary, and additional funding to use in the pursuit of academic excellence.

## Hoselton Chair of Private Enterprise and Ethics

The expressed purpose of the Hoselton Chair of Private Enterprise and Ethics (which rotates among faculty in the Department of Business and Economics) is to stimulate dialog on and off campus about the benefits of a system of private enterprise that is undergirded by a strong biblical and ethical foundation. The Chair holder teaches courses, organizes events, attends conferences, supports student groups, and makes presentations that explain these benefits and the conditions under which they encourage and support social welfare.

## Irwin Chair in Engineering

The Irwin Chair in Engineering was established in 2019 through a generous gift from Dr. David Irwin '77 and Dr. Carmela Romano-Irwin to benefit engineering. The award carries with it a medallion to be worn at official convocations, funding for the faculty member's salary, and additional funding to use in the pursuit of academic excellence.

## Alan and Florence Johnson Distinguished Chair in Health Sciences

In appointing this distinguished chair, we look for evidence of excellence in the field of study, extraordinary investment in teaching and mentoring, and mature leadership and service to the disciplines in the health sciences. In this award, we celebrate distinguished contributions to a Houghton education in a truly interdisciplinary field. The faculty member must be someone who has not only depth of expertise in a contributing discipline but the ability to contribute strongly to conversations among the multiple fields that serve students preparing for careers in health sciences. Also, in an era when careers in health sciences increasingly bring practitioners face to face with difficult ethical questions, this distinguished chair acknowledges the importance of professors who can guide students in exploring deeply Christian responses to issues in the health sciences of our time. The award carries with it a medallion to be worn at official convocations.

## The Moreland Chair in Biology

This honor is extended to a member of the natural science faculty who best exemplifies the standard of academic excellence set by Dr. Moreland. Nominations are made from among faculty members who submit a proposal for research or writing projects and approved by members of the academic area. This award carries with it a medallion to be worn at official convocations and an endowed stipend for research in collaboration with students.

## Van Gordon Chair in Communication and Writing

The Van Gordon Chair was established to honor eligible faculty members whose primary responsibility in communication or writing is to engage in projects that benefit or enhance one or more of the following: the faculty member's professional development, the instruction and quality of the Communication and/or Writing majors, cooperation and coordination between those programs, and public awareness of Houghton College. The award is chosen from among proposals submitted by eligible faculty members and approved by members of the academic area and the Faculty Development Committee. The award carries with it funds relevant to the project proposal.

## Current Faculty

The date following the name indicates year of appointment to the Houghton faculty.

## Doyin Adenuga (2016)

Electronic Resources Librarian
BS, Obafemi Awolowo University, 1994; MLIS, University of British Columbia, 2013
Vincenzo Antignani (2021)
Associate Professor of Biology
BS, University of Naples "Pederico II" (Italy) 2003; MS, University of Naples (Italy) 2006; PhD, University of Naples (Italy) 2011

Christopher Ashbaugh (2016)
Assistant Professor of Music Composition
BM, Capital University, 2009; MM, Butler University, 2014
Brandon Bate (2014)
Assistant Professor of Mathematics
BS, Houghton College, 2004; MA, Boston College, 2007; PhD, Rutgers University, 2013
Wendy R. Baxter (2007)
Counselor; Assistant Professor
BA, Houghton College, 1978; MSW, SUNY Buffalo, 1996
Daniel David Black (2016)
Assistant Professor of Vocal Music \& Conducting; Director of Choral Activities
BMus, Northwestern University, 2004; MMus, Houghton College, 2008; DMA, University of Arizona-Tucson, 2014

Andrea N. Boon (2006, part-time)
Instructor of Recreation: Equestrian Studies
BS, Houghton College, 2000; MS, SUNY Brockport, 2008
Mark Borchert (2021)
Professor of Business and Communication
BA, Carson-Newman College, 1986; MA, Southern Baptist Theological Seminary, 1990; MA, University of Texas at Austin, 1990; PhD, University of Colorado at Boulder, 1998

Kaiden Bowers (2020)
Assistant Professor of Sport, Recreation, \& Wellness Management; Assistant Director of EPIC Program BS, Houghton College, 2013; MS, SUNY Brockport, 2015

Kathleen Breitigan (2019)
Director of Residence Life and Housing
BS, Houghton College, 2009; MA, Taylor University, 2011

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

William Burrichter (2016)
Executive Director of the Center for Student Success; Director of Counseling Services; Associate Professor of Psychology
BA, Houghton College, 1992; MS, Villanova University, 1997; Primary Training Certificate/Rational Emotive Behavior Training and Techniques, Albert Ellis Institute, 1999; PhD, Walden 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

Biwei Chen (2021)
Assistant Professor of Economics and Finance
BE, North China Institute of Science and Technology, 2007; MA, Jinan University, 2011; PhD, The City University of New York, 2018

David Clem (2014, part-time; 2021)
Dean of Greatbatch School of Music, Instructor of Music History
BMus Houghton College, 2005; MM, Houghton College, 2007; MA, PhD, University at Buffalo, 2001, 2020

Martin J. Coates (2007, part-time; 2013)
Assistant Professor of Education and Field Placement Coordinator
AAS, Genesee Community College, 1987; BS, MA, State University of New York at Brockport, 1993, 2004

Julian Cook (2018)
Director of Houghton College Bethel AME
BA, Houghton College, 2013; MDiv, Boston University, 2016

Ryann Cooley (2013)
Professor of Digital Media and Photography; Chair, Department of Art
BA, Brooks Institute of Photography, 1993; MFA, School of Visual Arts (New York), 2012

Amanda K. Cox
Assistant Professor of Voice; Director of Lyric Theatre
BMus, Houghton College, 2001; MMus, University of Miami, 2003

Laurie A. Dashnau (2000)
Professor of English and Writing; Director of the Writing Center
BA, Nazareth College, 1987; MA, PhD, Miami University of Ohio, 1989, 1996

Marcus W. Dean (2003)
Professor of Intercultural Studies; Director of Off-Campus Studies
BA, Indiana Wesleyan University, 1981; MDiv, ThM, Asbury Seminary, 1987, 1988; PhD, Trinity Seminary, 2001

Sarah B. C. Derck (2012)
Assistant Professor of Old Testament; Chair, Department of Religion and Global Service
BA, Indiana Wesleyan University, 1999; MA, Nazarene Theological Seminary, 2002; PhD, Nazarene Theological College University of Manchester, 2012

Christian Esh (2018)
Associate Professor of History
BA, Houghton College, 1998; MA, PhD, University of Maryland, 2001, 2006

Cathy E. Freytag (2003)
Interim Dean of the Faculty; Faculty Development Coordinator
BS, Carson-Newman College, 1990; MA, University of Alabama, 1991; EdD, University of Central Florida, 2003

Jonathan Gates (2020, part-time; 2021)
Professor of English
BA, Houghton College, 1995; MA, Miami University, 1987; MPhil, Drew University, 1997; PhD, Drew University, 1999

Douglas M. Gaerte (1988)
Professor of Communication; Chair, Department of Communication
BS, Grace College, 1983; MA, PhD, Indiana University, 1987, 1995

Heidi Giannini (2018)
Assistant Professor of Philosophy
BA, Houghton College, 2006; MA, PhD, Baylor University, 2008, 2013

Aaron Harrison (2018)
Assistant Professor of Art
BA, Houghton College, 2001; MFA, Marywood University, 2006

Benjamin Hegeman (2006, part-time)
Assistant Professor of Intercultural Studies
BA, Wilfred Laurier University, 1985; BRS, MDiv, Central Baptist Seminary and College, 1985, 1986; PhD, University of Utrecht, 2000
D. Brandon Hoffman (2006)

Professor of Physics; Chair, Department of Physics, Computer Science, and Engineering
BS, Northwest Nazarene University, 2000; PhD, University of California, Davis, 2007

Laura Hopkins (2018)
Assistant Professor of Education
BS, Houghton College, 2004; MEd, Regent University, 2007; PhD, Michigan State University, 2018

Walter Hopkins (2018)
Assistant Professor of Modern Languages
BA, Houghton College, 2004; MA, Middlebury College, 2009

Wei Hu (1997)
Professor of Mathematics and Computer Science
BS, Zhejiang Teacher's University, 1982; MS, Hangzhou University, 1985; MS, Michigan State University, 1994;
MS, PhD, University of Kentucky, 1996, 1997

David M. Huth (2006)
Professor of Visual Communication and Media Arts
BA, Houghton College, 1991; MFA, Rochester Institute of Technology, 2005

Sharon L. Johnson (2004)
Associate Professor of Piano; Coordinator of Collaborative Piano
BMus, MM, University of North Carolina, Greensboro 1983, 1985; DMA, University of Minnesota, 2008

Torrance Jones (2021)
Assistant Professor of Business and Criminal Justice
BS, Alfred University, 2010; MA, Northeastern Seminary at Roberts Wesleyan College, 2015; EdD, St. John Fisher College, 2019

Jill E. Jordan (2009; 2014, part-time)
Assistant Professor of Mathematics; Director of STEM
BA, Houghton College, 1999; MA, PhD, Bryn Mawr College, 2002, 2005
J. Michael Jordan (2009, part-time; 2013)

Dean of the Chapel; Assistant Professor of Theology
BA, Houghton College, 1999; MDiv, Eastern Baptist Theological Seminary, 2002; PhD, Drew University, 2009

Kevin L. C. Kettinger (2016)
Registrar
BA, Asbury University, 1995; MS, Roberts Wesleyan College, 2002

Hannah Kim (2019)
Assistant Professor of Psychology
BS, Yonsei University, 1992; MA, Yonsei University, 1997; MPhil, PhD, The Graduate Center CUNY, 2013, 2017

Eli J. Knapp (2009)

Associate Professor of Ecology; Director of East Africa Semester
BS, Houghton College, 2000; MS, University of California-Santa Barbara, 2003; PhD, Colorado State University, 2009

Katrina Koehler (2021)
Assistant Professor of Physics
BS, Houghton College, 2011; MA, Western Michigan University, Kalamazoo, 2014; PhD, Western Michigan University, Kalamazoo, 2019

Kristina LaCelle-Peterson (2001)
Professor of Religion
BA, Houghton College, 1982; MDiv, Gordon-Conwell Theological Seminary, 1987; MPhil, PhD, Drew University Graduate School, 1992, 2001

Benjamin J. B. Lipscomb (2002)
Professor of Philosophy; Director of Honors
BA, Calvin College, 1996; MA, PhD, University of Notre Dame, 1999, 2002

Susan Bruxvoort Lipscomb (2005)
Professor of English; Chair, Department of English and Writing; Faculty Moderator
BA, Calvin College, 1996; MA, University of Chicago, 1997; MA, PhD, University of Illinois, Urbana Champaign, 1998, 2005

Don Little (2009, part-time)
Assistant Professor of Intercultural Studies
BA, University of British Columbia, 1984; Diploma in Christian Studies, Regent College, 1985; MEd, University of British Columbia, 1992; DMin, Gordon-Conwell Theological Seminary, 2008

Carrie Magin (2014, part-time; 2015)
Assistant Professor of Composition and Theory
BA, BMA, University of Michigan, 2004; MMus, DMA, University of Cincinnati Conservatory of Music, 2011, 2013

Paul Martino
Professor of Chemistry/Biochemistry
BS, Shepherd University, 1986; PhD, University of Virginia, 1991

Sara Massey (2018)
Assistant Professor of Music Education
BS, Baylor University, 1979; MM, PhD, University of North Carolina at Greensboro, 2010, 2016

Timothy McGarvey (2017)
Professor of Conducting \& Instrumental Music; Director of Instrumental Activities

BS, Taylor University, 1980; MMus, Western Michigan University, 1989; DMA, University of Cincinnati College Conservatory of Music, 1997

Elianna McHenry (2020)
Assistant Professor of Business \& Economics
BS, MBA, Houghton College, 2018, 2020

Carmen McKell (2021)
Associate Professor of Data Science
BS, Houghton College, 1987; MA, University of New Brunswick, 1993

Peter C. Meilaender (2001)
Professor of Political Science; Chair, Department of History, Politics, and Philosophy; Director of Humanities BA, Kenyon College, 1993; MA, PhD, University of Notre Dame, 1997, 1999

Ann Monroe-Baillargeon (2021)
Professor of Education; Associate Academic Dean
BA, University of Wisconsin-Milwaukee, 1982; MS, University of Southern Maine, 1988; PhD, Syracuse University, 1998

Sharon Mulligan (1990)
Associate Director of Academic Support and Accessibility Services
BS, Houghton College, 1992; MSEd, St. Bonaventure, 1999

Madison T. Murphy (2014)
Assistant Professor of Media Arts and Visual Communication
BA, Houghton College, 2011; MFA, Savannah College of Art and Design, 2016

Nancy L. Murphy (2007; 2010, part-time; 2015)
Title IX Coordinator
BA, Mount Vernon Nazarene College, 1980; MA, Ohio State University, 1982

Theodore J. Murphy (1986)
Professor of Art; Mabel Barnum Davidson Distinguished Professor of Fine Arts (beginning 2014)
BA, Mount Vernon Nazarene College, 1980; MFA, Ohio State University, 1983

William J. Newbrough (2002)
Professor of Piano; David and Allene Horne-Blanchard Endowed Chair (2014-2024)
BA, University of California at Berkeley, 1994; MM, DMA, AD, Peabody Conservatory of Music/Johns Hopkins University, 1995, 1998, 2000

Luke Ogden (2016)
Adjunct Instructor of Voice
BMus, Houghton College, 2014; MM, Pennsylvania State University, 2016

Terence P. Paige (1994)
Professor of New Testament
BA, Seattle Pacific University, 1982; MCS, MDiv, Regent College, 1986; PhD, University of Sheffield (England), 1994

Änna Pettway (2017)
Assistant Professor of Psychology; Chair, Department of Psychology and Criminal Justice
BA, Spring Arbor University, 2007; MA, PhD, University of Detroit Mercy, 2011, 2014

Jamie L. Potter (2008)
Associate Professor of Biology; Director of Pre-Medical Education
BS, Olivet Nazarene University, 1999; MS, University of Wisconsin-Madison, 2002; PhD, Southern Illinois University, 2008

Ransom Poythress (2014)
Assistant Professor of Biology
BS, California Institute of Technology, 2006; Special Student in Apologetics and Philosophy, Westminster Theological Seminary, 2007; PhD, Boston University, 2013

Kimberly Prins Moeller (2017)
Assistant Professor of Voice
BMus, Houghton College, 2005; MA, Montclair State University, 2010; DMA, University of Arizona, 2014

John M. Rhett (1995)
Professor of Art
BFA, MFA, Virginia Commonwealth University, 1979, 1995

Larissa Ries (2014)
Director of the Equestrian Program, Assistant Professor Recreation: Equestrian Studies
BS, Houghton College, 2008; MEd, William Woods University, 2016

Michael Ritter (2018)
Assistant Professor of International Development
BS, Grove City College, 2006; MPH, Emory University, 2008; PhD, Tufts University, 2018

John M. Rowley (2008)
Associate Professor of Chemistry; Director of General Education
BS, Houghton College, 2003; MS, PhD, Cornell University, 2005, 2008

Silas Schaeffer (2021)
Assistant Professor of Education, Director of Undergraduate Research in Education, Director for the Center for Teaching and Learning
BS, University of Maryland, 2012; MS, University of Kansas, 2015; PhD, University of Kansas, 2021

Jesse Sharpe (2019)<br>Assistant Professor of English<br>BA, Simpson College, 2004; MS, Drexel University, 2007; PhD, University of St. Andrews, 2012

Ki Shin (2020)
Assistant Professor of Electrical Engineering
BS, Handong Global University, 2004; PhD, University of Tennessee at Knoxville, 2014

Francesca Silano (2020)
Assistant Professor of History
BA, McGill University, 2010; MA, PhD, University of Toronto, 2011, 2017

Marc Smithers (2016)
Dean of Students
BA, Houghton College, 2008; MA, Geneva College, 2013

David Stevick (2008)
Director of Library and Information Resources; Associate Professor Equivalent
BA, Houghton College, 1991; MSLS, Clarion University of Pennsylvania, 2002

Aaron M. Sullivan (2004)
Associate Professor of Biology; Chair, Department 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)
Associate Professor of Education; Chair, Department of Education
BA, Mount Vernon Nazarene University, 1997; MS, Binghamton University, 2003; PhD, University at Buffalo, 2012
A.C. Taylor (2019)

Director of Student Engagement
BMus, Houghton College, 2014; MA, Geneva College, 2016

Laura D. Thayer (2011-2012; 2015)
Assistant Professor of Recreation; Chair, Department of Sport, Recreation, and Wellness
BS, Houghton College, 2001; MEd, Westminster College, 2008; PhD, Indiana University, 2015

Karen E. Torraca (2007)
Professor of Chemistry; Chair, Department of Chemistry
BS, Houghton College, 1993; PhD, University of Florida, 1999

Christopher E. S. Warburton (2021)

Assistant Professor of Economics and Finance
MA IPED, Fordham University, 1994; MA Econ., Fordham University, 2002; PhD, Fordham University, 2003

Matthew Webb (2018)
Director of Athletics
BA, Bethel University, 1991; MS, Alfred University, 1994; PhD, Regent University, 2008

Alex Wright (2021)
Assistant Professor of Management and Business Administration
BS, Houghton College, 2007; MDiv, Asbury Theological Seminary, 2013; PhD, Regent University (School of Business \& Leadership), 2018

Rebekah B. Johnson Yates (2009)
Associate Professor of Mathematics; Chair, Department of Mathematics
BS, Wheaton College, 2003; MA, PhD, University of Montana, 2006, 2009

Jo-Anne O. Young (1985, part-time)
Assistant Professor of Recreation: Equestrian Studies; Equestrian Program Director Emeritus
BS, Houghton College, 1969; MA, Salem International University, 2005

Paul D. Young (1980)
Professor of Psychology
BS, Houghton College, 1976; MA, PhD, University of Alberta, 1978, 1984

Alison Young Reusser (2019)
Assistant Professor of Psychology
BA, Houghton College, 2007; MA, Ohio State University, 2010; PhD, Ohio State University, 2014

Mark E. Yuly (2000)
Professor of Physics; Associate Dean for the Natural Sciences and Mathematics
BS, Northwest Nazarene College, 1987; PhD, Massachusetts Institute of Technology, 1993

Jie Zhao (2020)
Assistant Professor of Electrical Engineering
BS, Zhejiang University, 2005; MA, Hangzhou Normal University, 2010; PhD, Texas Tech University, 2019

## Emeriti Faculty

A. Cameron Airhart (1987)

Professor of History
BA, Northwest Nazarene College, 1976; MA, PhD, University of California (Santa Barbara), 1979, 1985
Richard J. Alderman (1971-1991)

Director of Admissions and Records
BA, Houghton College, 1952; MS, Alfred University, 1960

Jonathan E. Arensen (1995-1996, part-time; 1998-2013)
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 (1987-1993; 1998; 2016)
Instructional Technology Librarian
BA, Houghton College, 1976; MBA, Plymouth State College, 1980; MLS, EDM, University at Buffalo, 1993, 2001; CAGS, Regent University, 2009

Margery L. Avery (1988-2016)
Director of Academic Records
BA, University of Southern Maine, 1972

Kenneth J. Bates (1989-2017)
Associate Professor of Business
BS, Houghton College, 1971; MBA, Loyola College, 1980

Gary Baxter (1979-1982 part-time; 1982; 2017 part-time)
Professor of Art
BA, SUNY College at Geneseo, 1983; MFA, Rochester Institute of Technology, 1985

Willis Beardsley (1980-2005)
Director of Academic Assessment
BA, Houghton College, 1960; MS, SUNY College at Geneseo, 1965; EdD, SUNY at Buffalo, 1977

Robert A. Black (1991)
Professor of Economics
BA, West Virginia Wesleyan College, 1972; MA, PhD, West Virginia University, 1979, 1984

Bruce C. Brown (1974-2002)
Professor of Voice
BM, Wheaton College, 1962; MM, DMA, University of Southern California, 1964, 1974
E. Douglas Burke (1958-1994)

Professor of Physical Education; Director of Intercollegiate Athletics
BS, Wheaton College, 1953; MA, Syracuse University, 1954

Daniel R. Chamberlain (1976-2006)
President

BA, Upland College, 1953; MA, California State College at Los Angeles, 1957; EdD, University of Southern California, 1967

Larry W. Christensen (1969-2006)
Professor of Chemistry
BA, Goshen College, 1965; PhD, Purdue University, 1969

Judy A. Congdon (1991; 2016, part-time)
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; DWS, Robert E. Webber Institute for Worship Studies, 2013
E. Elizabeth Cook (1964-1988)

Associate Professor of Biology
BS, Houghton College, 1962; MS, St. Bonaventure University, 1972

Robert F. Danner (1981-2006)
Vice President for Student Life and Dean of Students
BME, Wheaton College, 1960; MA, George Washington University, 1974; PhD, SUNY at Buffalo, 1990

William R. Doezema (1979-2016, part-time; 2017-2018, part-time)
Professor of History
AB, Calvin College, 1969; MA, PhD, Kent State University, 1974, 1978

Richard K. Eckley (1990)
Professor of Theology
BS, United Wesleyan College, 1980; MDiv, Asbury Theological Seminary, 1983; ThM, Princeton Theological Seminary, 1985; PhD, Duquesne University, 1998

Constance R. Finney (1981-1986, part-time; 1986)
Professor of Education
BA, Houghton College, 1978; MS, SUNY College at Buffalo, 1981; EdD, SUNY at Buffalo, 1994

Carlton D. Fisher (1985; 2017, part-time)
Professor of Philosophy
BA, Marion College, 1974; MA, Western Kentucky University, 1978; MA, PhD, University of Notre Dame, 1980, 1984

Robert J. Galloway (1973-2013)
Professor of Piano
BM, MM, Boston University, 1968, 1972; MTS, Gordon-Conwell Theological Seminary, 1970; Staatliche Hochschule fuer Musik, Cologne, W. Germany, 1972-1973; PhD, Michigan State University, 1995

Richard A. Halberg (1975-2013)
Professor of Business Administration
BA, Houghton College, 1971; MBA, University of Akron, 1976

Susan M. Hice (1993-2011)
Associate Professor of Education
BA, Kalamazoo College, 1965; MSEd, SUNY College at Fredonia, 1974; PhD, Michigan State University, 1983

Irmgard K. Howard (1970-1993, part-time; 1993-2010; 2011-2015, part-time)
Professor of Chemistry
BA, PhD, Duke University, 1962, 1970

Richard A. Jacobson (1966-2012)
Professor of Mathematics
BS, MS, South Dakota School of Mines, 1959, 1961

Thomas R. Kettelkamp (1975-1976, 1978-2015)
Professor of Recreation and Physical Education
BS, Southern Illinois University, 1970; MS, Illinois State University, 1972; PhD, University of Illinois, 1982

Ben R. King (1980-1992; 1996-2011)
Professor of Voice; Director, School of 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

Michael D. Lastoria (1982; 2015, part-time)
Senior Counselor
BS, Rutgers University, 1970; MS, University of Nebraska (Omaha), 1974; EdD, Loyola University (Chicago), 1982; Clinical Internship, Marriage and Family Therapy, University of Rochester, 1987-1992; Clinical Member, American Assoc. of Marriage and Family Therapists

John R. Leax (1968-2009)
Professor of English; Poet in Residence (2006-2009)
BA, Houghton College, 1967; MA, Johns Hopkins University, 1968

Charles E. Massey (1976-1998; 1998-2013, part-time)
Professor of Education; Director of Houghton College City Semester
AB, Southern Pilgrim College, 1968; MA, EdD, University of NC at Greensboro, 1972, 1976

Linda Mills Woolsey (1999-2017)
Professor of English
BA, Houghton College, 1974; MA, SUNY Binghamton, 1976; PhD, Drew University, 1989

Laurence K. Mullen (1966-1993)
Professor of Bible and Philosophy
BA, ThB, Eastern Nazarene College, 1949, 1950; MA, Boston University, 1952

Shirley A. Mullen (2006-2021)
President; Professor of History
BA, Houghton College, 1976; MA, University of Toronto, 1977; PhD, University of Minnesota, 1985; PhD, University of Wales, 2000

Edgar R. Norton (1956-1993)
Associate Professor of Music Education
BS, Fredonia State Teachers College, 1949; MS, Potsdam State Teachers College, 1960

Ronald J. Oakerson (1992; 2013, part-time)
Professor of Political Science
BA, Taylor University, 1966; MA, PhD, Indiana University, 1973, 1978

Frederic C. Parker (1976-1998)
Associate Professor of Mathematics
BS, MS, Columbia University, 1954, 1955; MS, University of Notre Dame, 1964

Meic Pearse (2004-2020)
Professor of History
BA, University of Wales, 1978; DMS , Polytechnic of Wales, 1981; MPhil, DPhil, Oxford University, 1989, 1992
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, University of Pennsylvania, 1965

Richard C. Pocock (1959-1995)
Professor of Mathematics
BA, Houghton College, 1955; MS, Syracuse University, 1959; EdD, Columbia University, 1974

Jean-Louis Roederer (1966-1972; 1976-2015)
Associate Professor of French and Spanish
BA, Houghton College, 1964; MA, Middlebury College, 1970

Roger J. Rozendal (1972-2006)
Associate Professor of Communication
BA, Northwestern College, 1965; MA, Oklahoma State University, 1969
Carl Schultz (1965-1967; 1971-2011)
Professor of Old Testament
BRE, Malone College, 1952; BA, Houghton College, 1953; MA, Wheaton College, 1954; PhD, Brandeis University, 1973

Frederick Shannon (1958-1993)
Professor of Chemistry
BS, MS, PhD, University of Akron, 1953, 1959, 1964

Paul W. Shea (1994-1996, part-time; 1996-2013)
Associate Professor of Missions
BA, Houghton College, 1969; MDiv, DMiss, Trinity Evangelical Divinity School, 1973, 1994

Richard D. Stegen (1981-2016)
Professor of Psychology
BA, Houghton College, 1969; MA, Temple University, 1972; PhD, St. John's University, 1982

Daryl H. Stevenson (1982-2013)
Professor of Psychology
BA, Houghton College, 1970; MS, SUNY College at Brockport, 1975; MA, PhD, Rosemead Graduate School of Psychology, 1978, 1981

Gary M. Stith (2002-2012)
Professor of Music Education
BMus, Ohio State University, 1972; MMus, Eastman School of Music, 1978

Cynthia S. Symons (1994-2019)
Professor of Psychology
BA, Utica College, 1986; MS, PhD, Syracuse University, 1990, 1992

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 (1995-2015)

Professor of Christian Ministries
BA, Circleville Bible College, 1972; BA, Houghton College, 1986; MAR, Asbury Theological Seminary, 1974; MA, St. Mary's University, 1980; DMin, Trinity Evangelical Divinity School, 1991

Lois Jane Wilt (1968-1988)

Assistant Professor of Music
BMus, Houghton College, 1946; MA, Western Reserve University, 1947

James M. Wolfe (1988)
Professor of Biology
BA, Gordon College, 1975; MS, University of Oklahoma, 1978; PhD, University of Rhode Island, 1988

Stephen A. Woolsey (1999-2018)
Professor of English
BA, Houghton College, 1973; MA, SUNY Binghamton, 1976; PhD, Drew University, 1988

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

## Retired Faculty

Coenraad Bakker (1997-2002)
Associate Professor of Computer Science
BS, Parsons College, 1965; MS, University of Rochester, 1970

John N. Brittain (2003-2012)
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

Carol A. Brown (1995-2002, part-time)
Assistant Professor of Education
BA, Owosso College; BS, Spring Arbor College, 1965; MLS, SUNY Geneseo, 1981

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 (1988-1992, part-time; 1992-1997)
Interim Assistant Professor of Voice
BMus, West Virginia University, 1954; MM, New England Conservatory of Music, 1956

David Kinman (2008)
Associate Professor of Spanish
BA, Geneva College, 1973; MA, Indiana University of PA, 1977

Ellen E. Kreckman (1975-1998)
Cataloger and Catalog Coordinator
BA, Houghton College, 1959; MSLS, Syracuse University, 1961

Lois A. Ross (2008-2015)
Associate Professor of Accounting
BA, Houghton College, 1973; MA, California State at Los Angeles; MBA, SUNY Buffalo, 1998

William L. Siemens (1988-1995)
Professor of Spanish
BA, Wheaton College, 1958; MDiv, Gordon-Conwell Seminary, 1961; MA, University of Massachusetts, 1967;
PhD, University of Kansas, 1971

Robert B. Smalley (1988)
Assistant Professor of Recreation
BS, Houghton College, 1978; MEd, State University of New York at Buffalo, 1985

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


[^0]:    MCHU 451 Music and Worship
    4-WSP

[^1]:    PSY 394 Summer Collaborative Research in Psychology
    0-4-May
    Students conduct a research project in collaboration with other students and a

