
Education (majors and minor)

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

Art Education (leading to certification to teach visual arts in grades PK-12). 44 hours in the major; 36 hours in content major (Art as a second major). *Pending state approval.*

Inclusive Childhood Education (leading to certification to teach grades one to six, for general education and the education of students with disabilities) 58 hours in the major; four hours in pre/co-requisites. Students majoring in Inclusive Childhood Education also complete a concentration of 30-32 hours.

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

Physical-Health Education (leading to dual certification in physical education and health education in grades PK to 12) 65-68 hours in major; 24 hours in education. (Please see *Physical Education* section of the catalog.)

Physical Education (leading to certification to teach physical education in grades PK to 12) 36.5 hours in the major; 11.5 hours in activities; 29 in education; 4 hours in pre/co-requisites. (Please see *Physical Education* section of the catalog.)

Music Education (leading to certification to teach music in grades PK to 12) varied hours depending upon the track chosen. (Please see the *Music* section of the catalog.)

General Information

In the spring semester of 2010, a total of 221 students were enrolled in Education Department majors: 48 in Adolescence Education, 11 in TESOL, 91 in Inclusive Childhood Education (ICE), 17 in Physical Education/Physical-Health Education and 54 in Music Education.

Admission to the Houghton College Teacher Education Program is by application, and continuation in the program requires meeting the standards outlined below. The Teacher Education Committee takes into account each candidate's prospects for successful completion of courses and field placement requirements in its decisions. Preparing to become a teacher involves more than academic preparation in the college classroom. Part of the process of becoming an effective educator includes cultivating professional behaviors, attitudes and dispositions that are expected of professionals in this field. To that end, prospective teacher education students must demonstrate acceptable evidence of professional dispositions for admittance into and continuation in the Houghton College Teacher Education Program.

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

1. Complete an application (available from the department office, 200 Chamberlain Center),
2. Successfully complete the writing sample assessment,
3. Present a cumulative grade point average of at least 2.5,
4. Demonstrate acceptable evidence of professional dispositions, and
5. Receive formal approval from Teacher Education Committee.

For entry into **upper level education courses** (courses numbered 300 and higher), a student must:

1. Have been admitted to the teacher education program,
2. Have successfully completed specified 200-level course work in Education; ADE majors must complete at least 8 hours of course work from among EDUC 217 (or 218), EDUC 219, 235, 240; ICE majors must complete the following courses (14 hours): EDUC 114, 219, 235, 240. Students in ALL teacher

education strands (ADE, Art Ed, ICE, TESOL, PE, PE-Health, Music Ed) must complete EDUC 202 Topics in Professionalism by the end of the sophomore year.

3. Present a cumulative grade point average of at least 2.6,
4. Demonstrate acceptable evidence of professional dispositions, and
5. Receive formal approval from Teacher Education Committee.

Note: Continuation in the second semester of the junior-level course sequence in each program is contingent upon successful completion of all requirements for coursework and field placements. To continue in the program and to be recommended for teacher certification (in any state), students must earn a grade of B- or better in each of their field placements.

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

1. Complete and submit the Application for Professional Field Semester **by the end of the second week of the semester prior to the requested professional semester**,
2. Have successfully completed the junior level course sequence appropriate to the major, including successful completion of all field placement requirements with a grade of B- or higher (see note above),
3. Present a cumulative grade point average of at least 2.7,
4. Demonstrate acceptable evidence of professional dispositions,
5. Complete all state-mandated training sessions required for certification (completed in EDUC 202),
6. Complete all of the required contact hours (varies according to program strand), and
7. Receive formal approval from the Teacher Education Committee.

Adolescence education, art education, physical education, physical-health education or TESOL majors seeking approval for **student teaching outside the United States** must present a cumulative grade point average of at least 2.8 and receive approval from the Teacher Education Committee before they will be permitted to apply for an international student teaching placement. Interested students should contact the student teaching coordinator one year prior to their intended student teaching semester to initiate this process. (Overseas student teaching placements are currently not available in the Inclusive Childhood Education major.)

Student Teaching Policy: Recognizing the importance of academic responsibility during teacher training and the challenges inherent in the teaching profession, the Teacher Education Committee has established a 2.7 cumulative grade point average as one of the necessary requirements for approval to student teach. However, there are occasions when a student whose cumulative GPA is below the 2.7 shows reasonable potential for success in student teaching. When such students are identified by their education department advisor and/or the student teacher coordinator, the student may prepare a letter of appeal (if his/her cumulative GPA is at least 2.65), and the case will be considered by the Teacher Education Committee.

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

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

New York State Teacher Certification

Students completing adolescence education, art education, inclusive childhood education, music education, TESOL, physical education or physical-health education majors may apply for an Initial Teaching Certificate from New York State. In addition to completing the requirements for the major, applicants for New York State teacher certification must complete the required New York State Teacher Certification Examinations (NYSTCEs) appropriate to the desired teaching certificate(s) including, at the time of this catalog's printing, the Liberal Arts and Sciences Test, the Assessment of Teaching Skills-Written, and the appropriate Content Specialty Tests. Information on the NYSTCEs and New York State teacher certification is available from the education department office or from the New York State Education Department (www.nysed.gov). Information regarding the music education, physical education and physical-health education majors is available in the respective sections of this catalog.

Those intending to teach in states other than New York are advised to familiarize themselves with the requirements of the state(s) in which they desire to be certified and to select courses accordingly. New York State has reciprocity agreements with 38 states, the District of Columbia, and Overseas Dependent Schools; further information about reciprocity agreements may be obtained through the education department.

Urban Connections

The Education Department cooperates with the Office for Urban Connections of Houghton College at Buffalo. That office works with Houghton students and faculty who are interested in opportunities for service learning in an urban setting. Placements, supervision, and housing are arranged for students seeking practicum experiences, internships, student teaching, and other service learning activities with organizations and agencies in the city of Buffalo. Urban service learning experiences may involve a Houghton student commuting to the city one or two days a week, or living in the city for a semester. Additional information may be obtained by contacting the coordinator of the Office for Urban Connections at Houghton College at Buffalo.

Adolescence Education Major: (44 hours)

This major prepares students to teach at the secondary level (grades seven through 12) in one of the following subjects: augmented history (for social studies); biology, chemistry, English, mathematics, physics, or Spanish. The major includes a minimum of 100 hours of field experience which must be completed prior to student teaching; that field experience is linked to education courses, including (but not limited to) the following: EDUC 235, EDUC 240, and EDUC 33X.

Students majoring in adolescence education must complete one of the following as an additional major: augmented history (for social studies), biology, chemistry, English, mathematics, physics, or Spanish. New York State teacher certification requires at least 30 credit hours in the content to be taught, so in some cases, an additional elective course in the major is required.

Required courses:

EDUC 202	Topics in Professionalism	0
EDUC 217	Education and America Culture <i>or</i>	
EDUC 218	Secondary Education & American Culture	4
EDUC 219	Educational Psychology	4
EDUC 223	Adolescent Literature.....	4
EDUC 235	Educating Exceptional Learners	4
EDUC 240	Teaching in Urban America	2
EDUC 313	Language, Literacy & Curriculum Integration.....	4
EDUC 338	Curriculum and Assessment in Secondary Classrooms.....	4
EDUC 33x	Secondary Teaching: Content Methods & Practicum.....	4
332	English Methods	
333	Foreign Language Methods	
334	Math Methods	
335	Science Methods	
336	Social Studies Methods	
EDUC 409	Secondary Student Teaching I	6
EDUC 410	Secondary Student Teaching II.....	6
EDUC 411	Senior Capstone: Seminar in Secondary Teaching	2

Art Education Major: (44 hours) *Pending state approval.*

This major prepares students to teach visual arts to students in grades PK-12. In addition to completing the Art Education major (44 hours), students also complete a second content major in art (art as a second major, 36 hours. Please see the art section of the catalog for art requirements.) The major includes a minimum of 100 hours of field experience, which must be completed prior to student teaching; that field experience is linked to education courses including (but not limited to) the following: EDUC 235, EDUC 240, EDUC 346, and EDUC 347.

Required courses:

EDUC 202	Topics in Professionalism	0
EDUC 217	Education and America Culture	4
EDUC 219	Educational Psychology	4
EDUC 221	Children's Literature	
OR EDUC 223	Adolescent Literature.....	4
EDUC 235	Educating Exceptional Learners	4
EDUC 240	Teaching in Urban America	2
EDUC 313	Language, Literacy & Curriculum Integration	4
EDUC 338	Curriculum and Assessment in Secondary Classrooms.....	4
EDUC 346	Elementary Art Methods	2

EDUC 347	Secondary Art Methods.....	2
EDUC 403	Art Student Teaching: Elementary.....	6
EDUC 404	Art Student Teaching: Secondary.....	6
EDUC 412	Senior Capstone: Seminar in Art Education.....	2

TESOL Major with a concentration in Culture, Language, and Linguistics (54 hours in the major; 32 hours in the concentration) *Program revisions pending state approval.*

This major prepares students to teach English to speakers of other languages at the elementary (grades PK through 6) and the secondary level (grades 7 through 12). The major includes a minimum of 100 hours of field experience which must be completed prior to student teaching; that field experience is linked to education courses, including the following: EDUC 114, EDUC 221, EDUC 235, EDUC 240, EDUC 326, and EDUC 327.

Required courses:

EDUC 114	Mathematical Concepts and Reasoning.....	4
EDUC 202	Topics in Professionalism.....	0
EDUC 217	Education and American Culture <i>or</i>	
EDUC 218	Secondary Education and American Culture.....	4
EDUC 219	Educational Psychology.....	4
EDUC 221	Children's Literature.....	4
EDUC 235	Educating Exceptional Learners.....	4
EDUC 240	Teaching in Urban America.....	2
EDUC 320	Curriculum and Assessment in Inclusive Classrooms.....	4
EDUC 326	TESOL Practicum I: Elementary.....	1
EDUC 327	TESOL Practicum II: Secondary.....	1
EDUC 328	Foundations of Language and Literacy for Diverse Learners I ..	4
EDUC 329	Foundations of Language and Literacy for Diverse Learners II	4
EDUC 371	TESOL Methods: ELA.....	2
EDUC 372	TESOL Methods: Content areas.....	2
EDUC 422	TESOL student teaching: elementary level.....	6
EDUC 423	TESOL student teaching: secondary level.....	6
EDUC 424	Senior Capstone: Seminar in TESOL.....	2

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

The concentration requires:

INCL/ANTH/SOC 243	Cultural Anthropology.....	4
	Course work in one Language Other Than English.....	0-12
LING 220	Intro to Linguistics.....	4
LING 350	First and Second Language Acquisition.....	4
LING 351	Linguistics for TESOL.....	4
LING 370	Understanding English Grammar.....	4
Electives	LING and/or INCL electives chosen under advisement.....	0-12

Inclusive Childhood Education

This major prepares students to teach at the elementary level (grades one through six) in general and special education settings. The major includes a minimum of 150 hours of field experience in general and/or inclusive classroom settings which must be completed prior to student teaching; that field experience is linked to education courses, including (but not limited to) the following: EDUC 114, EDUC 221, EDUC 235, EDUC 240, and EDUC 314.

Students will choose either, a) a concentration in art; communication; English; French language, culture, and linguistics; humanities; intercultural studies; mathematics; math/science; modern languages; science; music; social studies; Spanish language, culture, and linguistics; TESOL (teaching English to speakers of other languages); writing, or b) a second major selected from the following: art, biology (BA), chemistry (BA), communication, English, history, humanities, intercultural studies, math, music (BA), physics (BA), political science, Spanish, or writing. [Please note that completion of a concentration or major in Art (BA) or Music (BA) in conjunction with the ICE major does **not** lead to certification to teach art or music.]

Pre/Co-requisites

Students will take an appropriate social science course as part of their integrative studies program. One course in history or political science that focuses on an aspect of the U.S. national experience, chosen under advisement. 4

Inclusive Childhood Education Major Requirements

EDUC 114	Mathematical Concepts and Reasoning	4
EDUC 202	Topics in Professionalism	0
EDUC 217	Education and American Culture.....	4
EDUC 219	Educational Psychology.....	4
EDUC 221	Children's Literature	4
EDUC 235	Educating Exceptional Learners	4
EDUC 240	Teaching in Urban America	2
EDUC 314	Inclusive Childhood Practicum I.....	1
EDUC 315	Inclusive Childhood Practicum II	1
EDUC 320	Curriculum and Assessment in Inclusive Classrooms.....	4
EDUC 325	Issues in Inclusive Education I	2
EDUC 328	Foundations of Language and Literacy for Diverse Learners I... 4	
EDUC 329	Foundations of Language and Literacy for Diverse Learners II...4	
EDUC 341	Soc. Studies in Inclusive Classrooms	2
EDUC 342	Math and Science in Inclusive Classrooms	4
EDUC 408	Inclusive Childhood Student Teaching.....	10
EDUC 425	Issues in Inclusive Education II.....	2
EDUC 485	Senior Capstone: Seminar on Reflective Teaching.....	2

Concentrations

1) Art Concentration (30-32 hours)

Studio Foundation (8 hours)

ART 131	Intro to Visual Arts.....	2
ART 241	2D Design	2
ART 242	3D Design	2
ART 211	Drawing I	2

Art History (must take at least 3 of the following) (10-12 hours)

ART 132	Art and Architecture in Europe	4
ART 231	Ancient Art History	4
ART 232	Renaissance & Baroque Art History	4
ART 235	African Art History	4
ART 236	Asian Art History Survey.....	2
ART 237	Modern & Contemporary Art History	4
ART 314	Art & History of Film	4

Concentration (12 hours) *Students choose a concentration area from the following: *painting, ceramics, photo, printmaking, sculpture, mixed media, drawing, or graphic design* and then take studio 2, 3, 4 for that concentration area.

2) Communication Concentration (minimum of 30 hours)

Pre-requisites (2 hours)

COMM 101	Presentational Speaking.....	2
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Core (12 hours)

COMM 205	Intro to Communication Theory	4
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Choose 2 of the 3 courses listed below. If a schedule conflict should occur, substitutions may only be made with approval from the appropriate department chair(s).

COMM 214	Intro to Mass Media	4
COMM 215	Interpersonal Communication	4
COMM 216	Organizational Communication	4

Electives (16 hours) – please select additional COMM elective courses with input from your advisor(s).

Pre-approved electives include: COMM 244 Oral Performance of Literature; COMM 245 Theatre Arts; COMM 316 Advanced Presentational Speaking; COMM 318 Rhetorical Theory; COMM 319 American Public Address; COMM 330 Conflict Management; ART 314 The Art of History and Film; PSY 426 Family Systems Theory; WRIT 214 Literary Non-Fiction; WRIT 304 Screenwriting; and WRIT 312 Creative Writing in Public Life. Other electives must be approved by the Chairs of the Communication and Education Departments.

3) English Concentration (minimum of 30 hours)

Pre-requisites (2-4 hours)

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

Core (12 hours)

You should attempt to complete each of the core courses prescribed below. If a scheduling conflict should occur, substitutions may only be made with approval from the appropriate department chair(s).

One course before 1800	4
One course after 1800	4
Major Author	4

Electives (16 hours)

Please select additional ENGL elective courses with input from your advisor(s).

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

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

Prerequisite/Core (0-16 hours)

FREN 101	French Level 1	4
FREN 102	French Level 2	4
FREN 205	Intermediate French	4
FREN 301	French Conversation and Grammar	4

*(Note: If you enter Houghton College with demonstrated **competency** toward one or more of these courses, you will need to select additional French electives to ensure that you have earned a minimum of 30 credits. If you transfer in **credit**, those credits will count toward your concentration. Earned CLEP credit will count toward the 30 hour minimum. Consult the college catalog regarding CLEP policies. With appropriate prior approval, you may transfer up to 16 credits toward a concentration in French.)*

Electives (16-32 hours)

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

5) Humanities Concentration (30 hours)

Literature (7-8 hours)

INTS 203	Literature & Wisdom (6 hours – 3 count for Literature)	3
INTS 152	The Meaning of the West	4
ENGL XXX	.....	4
ENGL XXX	.....	4

Philosophy (7-8 hours)

PHIL XXX	.....	(2/4)
PHIL XXX	.....	(2/4)
INTS 203	Literature & Wisdom (6 hours – 3 count for Philosophy)	3
INTS 152	The Meaning of the West	4
PHIL 202	Metaphysics, Morality and Mind	4
PHIL 243	Ancient Philosophy	4
PHIL 244	Medieval Philosophy	4
PHIL 245	Early Modern Philosophy	4
PHIL 246	Late Modern & Contemporary Philosophy	4

History (8 hours) *Courses must be numbered 200 or above.*

HIST XXX	.....	4
HIST XXX	.....	4

Choose one from either category below (3-4 hours)

Art History

ART 132	Art & Architecture in Context in Europe	4
ART 231	Ancient Art History	4
ART 232	Renaissance & Baroque Art History	4
ART 234	Art & Architecture in Europe	4
ART 235	African Art History	4
ART 237	Modern & Contemporary Western Art History	4
ART 314	The Art & History of Film	4

Music History

MHS 222	Introduction to Film Music	3
MHS 231/232	Music History and Literature I & II	2,2
MHS 254	Music of World Cultures	3

MHS 333	Music History and Literature III.....	3
MHS 334	Music History and Literature IV.....	3
Elective chosen from either ENGL. PHIL, or HIST (selected from options listed above) (2-5 hours)		
Note: Writing in the Liberal Arts (WILA) and Western Civilization <i>do not</i> count toward the Humanities concentration.		

6) Intercultural Studies Concentration (minimum of 30 hours)

Core (12-16 hours)

You should attempt to complete each of the core courses prescribed below. If a scheduling conflict should occur, substitutions may only be made with approval from the appropriate department chair(s).

INCL 201	Introduction to Global Issues	4
INCL 243	Cultural Anthropology	4
INCL 310	Intercultural Competencies	4
INCL 311	Intercultural Experience	0-4

Electives (14-20 hours) – please select additional elective courses with input from your advisor(s). Suitable electives are any courses that could be counted towards the Intercultural Studies Major, including:

- 1) Core courses in the Intercultural Studies Major that are not included above in the core for the Intercultural Studies Concentration
- 2) Courses included in any of the Intercultural Studies Concentrations (International Development, Islamic Studies, Linguistics, Missions, Urban Studies, French, Spanish, TESOL)
- 3) Other electives listed as suitable for the Intercultural Studies Major.

7) Mathematics Concentration (30 hours)

Mathematics (14 hours)

EDUC 114	Mathematical Concepts & Reasoning	4
MATH 181	Calc I	4
MATH 182	Calc II	4
MATH 210	Introduction to Proofs	2

Mathematics and Computer Science Electives (16 hours) – Courses may be chosen from among CSCI Programming I, CSCI Programming II or Math Electives 2XX or above. Two 2-credit courses may be substituted for a 4-credit course.

8) Mathematics & Science Concentration (minimum of 30 hours)

Mathematics (at least 14 hours)

EDUC 114	Mathematical Concepts & Reasoning	4
MATH 181	Calculus I	4
MATH 210	Introduction to Proofs	2
MATH XXX	.....	(2-4)
MATH XXX	.....	(2-4)

Science (at least 14 hours) Choose courses from at least two of the following areas:

Biology

BIOL 103	Fundamentals of Biology	4
BIOL 105	Conservation Biology	4
BIOL 151	General Biology I	4
BIOL 152	General Biology II	4
BIOL 217	Human Anatomy & Physiology	4

Chemistry

CHEM 121	Impact: Science on Society	3
CHEM 187	Intro to Nutrition (with optional lab)	(3-4)
CHEM 151	General Chemistry I	4
CHEM 152	General Chemistry II	4

Earth Science/Physics

ESCI 101	Physical Geology	(3-4)
ESCI 212	Environmental Earth Science	(3-4)
PHYS 102	General Astronomy	(3-4)
PHYS 130	How Things Work	4
PHYS 151	General Physics	4

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

9) Modern Languages Concentration (minimum of 30 hours)

Pre-requisites (0-24 hours)

Students pursuing a concentration in Modern Languages must demonstrate intermediate-level competency in

two modern languages.

Choose two of the languages below:

SPAN 101	Spanish Level 1	4
SPAN 102	Spanish Level 2	4
SPAN 205	Intermediate Spanish	4
FREN 101	French Level 1	4
FREN 102	French Level 2	4
FREN 205	Intermediate French	4
GERM 101	German Level 1	4
GERM 102	German Level 2	4
GERM 205	Intermediate German	4

Or you may demonstrate proficiency (Level 2 or higher) in another language, either through competency or earned credit. *Note: If you enter Houghton College with demonstrated competency toward one or more of these courses, you will need to select additional electives to ensure that you have earned a minimum of 30 credits. If you transfer in credit, those credits will count toward your concentration.*

Electives (6-24 hours)

Please select additional SPAN, FREN, GERM or other elective courses with input from your advisor(s). Electives must be selected from the same two languages you studied in the section above. Whenever possible, you should choose a “culture” elective and a “literature” elective in each of your chosen languages. If one of the languages you wish to study is not available at Houghton College, you will need to work closely with your advisor(s) to ensure that courses you might wish to transfer in meet the criteria for this concentration. You may transfer in up to 16 credits toward this concentration.

10) Music Concentration (30-31 hours)

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

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

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

Electives (2 -3 hours) – select music elective(s) in consultation with your curriculum advisor.

MCHU 312	Recent Congregational Song.....	2
MCHU 451	Music and Worship	3
MTH 367	Adv Global Musicianship	2
MLT 4XX	Instrument/Vocal Literature	2

11) Science Concentration (minimum of 30 hours)

Students concentrating in science must select courses from at least three of the disciplines listed below. Students must take at least 2 courses from 2 of the chosen disciplines.

Biology (0-16)

BIOL 103	Fundamentals of Biology	4
BIOL 151/152	General Biology I & II	4, 4
BIOL elective 105 or above		4

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

Earth Science (0-12)

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

Chemistry (0-15)

CHEM 187, 188	Intro to Nutrition	3-4
CHEM 121	Impact: Science on Society	3

	CHEM 151	General Chemistry I	4
	CHEM 152	General Chemistry II	4
Physics (0-16)			
	PHYS 151	General Physics I	4
	PHYS 152	General Physics II	4
	PHYS 102	General Astronomy	3-4
	PHYS 130	How Things Work	4

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

12) Social Studies Concentration (30 hours)

History (16 hours)

	Any HIST course(s) meeting the IS Culture: History requirement.....	4
	Any American History elective	4
	<i>(Choose from HIST 126, 220, 359, 360, 361, 362, or an approved ST course in American History chosen under advisement)</i>	
	HIST elective above 220	4
	HIST elective, non-European, non-American History	4

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

	POLS 204	Intro to Democracy and Governance	4
	POLS 205	In Search of Justice	4
	POLS 220	The American Political System.....	4
	POLS 375	Immigration and Citizenship	4

Economics (2 hours)

	ECON 201	Intro to Economics	2
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Social Science (8 hours) *Select two of the following classes upon consultation with your curriculum advisor.*

	PSY 213	Developmental Psychology	4
	<i>(or another appropriate PSY elective with the approval of the appropriate department chairs)</i>		
	SOC 101	Principles of Sociology or	
	ANTH 243	Cultural Anthropology	4
	Two ECON courses numbered 210 or above		2, 2
	Any POLS course number 204 or above		4
	<i>(POLS 210 World Regional Geography recommended)</i>		

13) Spanish Language, Culture & Linguistics Concentration (minimum of 30 hours)

Pre-requisites (0-12 hours)

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

Note: If you enter Houghton College with demonstrated competency toward one or more of these courses, you will need to select additional electives to ensure that you have earned a minimum of 30 credits. If you transfer in credit, those credits will count toward your concentration.

Core (16 hours)

You should attempt to complete each of the core courses prescribed below. If a scheduling conflict should occur, substitutions may only be made with approval from the appropriate department chair(s).

	SPAN 301	Spanish Communication	4
	SPAN 305	Spanish Phonetics	4
	SPAN 350	Advanced Spanish Grammar & Composition	4
	SPAN 407	Hispanic World Cultures	4

Electives (4-16 hours)

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

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

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

Language other than English: (12)

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

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

Core: (20)

	LING 220	Introduction to Linguistics	4
	LING 350	First and Second Language Acquisition.....	4
	LING 351	Linguistics for TESOL	4
	LING 370	Understanding English Grammar.....	4

EDUC 371	TESOL Methods: ELA	4
EDUC 372	TESOL Methods: Content Areas	4
Elective (choose one): (4)		
LING 312	Sociolinguistics	4
LING 322	Phonetics	4
LING 323	Phonology I	4
LING 333	Grammar I	4

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

15) Writing Concentration (30 hours)

Pre-requisites (2-4 hours)

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

Note: If you enter Houghton College with written competency, you will need to select additional writing electives to ensure that you have earned a minimum of 30 credits. If you transfer in credit, those credits will count toward your concentration.

Core (8 hours)

You should attempt to complete each of the core courses prescribed below. If a scheduling conflict should occur, substitutions may only be made with approval from the appropriate department chair(s).

WRIT 214	Literary Non-Fiction	4
WRIT 215	Life Narratives	4

Electives (20 hours)

Please select additional ENGL/WRIT elective course(s) with input from your advisor(s). ENGL 202: Literary Voices is an acceptable elective for this concentration.

Education minor: 14-16 hours

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

Required Courses:

EDUC 219	Educational Psychology	4
EDUC 217	Education and American Culture	4
Or		
EDUC 218	Secondary Education and Culture	4

Choose at least two of the following in consultation with an Education Department faculty member:

EDUC 114	Mathematical Concepts and Reasoning	4
EDUC 221	Children's Literature	4
EDUC 223	Adolescent Literature.....	4
EDUC 235	Educating Exceptional Learners	4
EDUC 236	Literacy, Culture, and Development	4
EDUC 240	Teaching in Urban America	2

COURSE DESCRIPTIONS

EDUC 114 Mathematical Concepts and Reasoning (4, F&S)
Builds a conceptual framework for understanding number, numeracy, number operations, probability, statistics, geometry, and measurement. Focus on problem-solving and the use of manipulative materials for developing conceptual understanding. Attention to development of mathematical concepts and reasoning.

EDUC 202 Topics in Professionalism (0, F&S)
This pass or fail course is designed to enable all education majors to meet New York state regulations for training in special topics (Identification and Reporting of Suspected Child Abuse or Maltreatment; School Violence Prevention and Intervention; Prevention of Child Abduction; Prevention of Alcohol, Tobacco and other Drug Abuse; Safety Education; Instruction in Fire and Arson Prevention). In addition it will provide information about certification, state testing requirements, and student teaching. Required before practicum experiences.

EDUC 203 Workshop: Child Abuse + ID (0, F&S)
All HCTEP majors and applicants for certification must complete two hours of coursework or training in the identification and reporting of suspected child abuse and maltreatment, as required by Sections 3003(4) and 3004 of the Education Law. Upon completion of the workshop, each participant will receive a certificate of completion.

EDUC 204 Workshop: School Violence (0, F&S)
All HCTEP majors and applicants for certification must complete two hours of coursework or training in school violence prevention and intervention, as required by section 3004 of the Education Law. Upon completion of the workshop, each participant will receive a certificate of completion.

EDUC 217 Education and American Culture (4, F&S)
A survey of the philosophical and historical antecedents of American education and their relationships to current educational debates. The influence of culture and language on experience and on education are considered. Students develop an initial statement of their personal philosophy of education.

EDUC 218 Secondary Education and American Culture (4, OD)
A survey of the philosophical and historical antecedents of American education and their relationships to current educational debates with a focus on secondary schools. The influence of culture and language on experience and on education are considered. Students develop an initial statement of their personal philosophy of education.

EDUC 219 Educational Psychology (4, F&S)
The individual in the teaching/learning process. Focus on learning models and theories, cognition, individual differences, motivation, and instructional psychology. Particular attention is given to intellectual and social development in formal and informal learning situations.

EDUC 221 Children's Literature (4, F&S)
Offers a survey of various genre in literature for pre-school and elementary grade children with an emphasis upon developing criteria for selection and evaluation. Particular attention is given to international and multicultural children's literature, to literary criticism as it pertains to children's literature, and to developmental and philosophical perspectives.

EDUC 223 Adolescent Literature (4, F)
Students will read and analyze a variety of literature of interest to adolescents with an eye toward understanding adolescents and their place in society, developing criteria for evaluating adolescent literature, and exploring current trends in this literature. Students investigate critical theories about the function and purpose of literature for adolescents, including developmental, aesthetic, and cultural considerations. Attention will be given to international and multicultural literature, as well as to literary criticism of young adult literature.

EDUC 235 Educating Exceptional Learners (4, F&S)
Examines the historical and legal contexts for providing services to diverse learners with a range of special educational considerations. Explores the scope of exceptionalities and the processes used to identify and address special needs. Emphasis is placed on the collaborative role of the general educator in meeting the needs of exceptional learners in inclusive settings.



EDUC 236/INCL 236 Literacy, Culture, and Development (4, S13)

This course focuses on schooling for ethnolinguistic minorities in an international comparative perspective. Drawing on case studies from a variety of countries in North America, Latin America, Africa, and Asia, students examine the rationales that motivate the “development” strategies of which education and language in education policies are a part and consider the roles that culture(s) and language(s) play in the schooling experience and educational outcomes of children and communities. The role of schooling as a primary focus of national and international development planning is considered.

EDUC 240 Teaching in Urban America (2, M)

Provides exposure to and an understanding of race, class and culture issues in contemporary urban schools. The student will develop an awareness of family and community as partners with schools in the education enterprise. Students will participate in a 10 day field experience in an urban school, working as teachers’ assistants. Recommended sophomore year. **Prerequisite: EDUC 202.**

EDUC 305 Middle School Content-Area Learning Strategies (3, M13)

Examines a variety of research-validated content-area learning strategies, self-advocacy strategies and process strategies for use in inclusive classrooms in the middle grades (grades 5-9). Students will research, read, review, critique and develop a variety of instructional strategies for use with middle-grade learners (with and without disabilities) across multiple content areas. According to NYS teacher certification requirements (2/2010), ICE graduates who are granted an Initial Teaching Certificate from New York State and who complete this course with a C or better **may be** able to extend their teaching certificate to include the middle grades through Individual Evaluation for Additional Classroom Teaching Certificate pathway (<http://eservices.nysed.gov/teach/certhelp/CertRequirementHelp.do>).

EDUC 306 Early Childhood Education: Language and Literacy Development (3, M12)

Focuses on research-based principles and practices for language and literacy development of children birth to 2nd grade. Emphasis is given to understanding the processes by which young children learn spoken and written language and to designing appropriate learning experiences to support the development of language and literacy in young children. According to NYS teacher certification requirements (2/2010), ICE graduates who are granted an Initial Teaching Certificate from New York State and who complete this course with a C or better **may be** able to extend their teaching certificate to include the early childhood grades through Individual Evaluation for Additional Classroom Teaching Certificate pathway (<http://eservices.nysed.gov/teach/certhelp/CertRequirementHelp.do>).

EDUC 313 Language, Literacy and Curriculum Integration (4, S)

Considers the role of language in secondary curriculum from philosophical, technical, cultural, and political perspectives. Models of curriculum integration at the secondary level are explored and applied.

EDUC 314 Inclusive Childhood Practicum I (1, F)

Two half-days per week in either a primary (grades one-three) or intermediate (grades four-six) classroom. Focus on observing children and the learning environment, assisting the classroom teacher with daily routines, and supporting the learning of individual children. **Taken concurrently with EDUC 320 and EDUC 328. Prerequisites: EDUC 202, EDUC 219 and EDUC 235.**

EDUC 315 Inclusive Childhood Practicum II (1, S)

Continuation of EDUC 314. Two half-days per week in same classroom assigned for EDUC 314. Focus on increasing responsibility for planning and teaching of lessons under the guidance of the classroom teacher. **Taken concurrently with EDUC 325, EDUC 329, EDUC 341, and EDUC 342. Prerequisites EDUC 235, EDUC 314, EDUC 320 and EDUC 328.**

EDUC 320 Curriculum and Assessment in Inclusive Classrooms (4, F)

Provides an exploration of the development of elementary curriculum and assessment and the creation of learning environments that support diverse learners in inclusive settings. Includes an examination of lesson planning and unit planning. Prerequisites: EDUC 219, EDUC 235. **Taken concurrently with EDUC 314 and EDUC 328.**

EDUC 321: Classroom Dynamics: Models & Research (2, OD)

Examines and critiques several proven models of classroom management through research and direct observation. It will provide the participant with ideas to consider and tools to draw upon when managing group learning situations with learners from all ages and grade levels. Participants will develop their own personal philosophy of management and discipline based on this new foundation.

EDUC 325 Issues in Inclusive Education I (2, S)

This course addresses issues in inclusive education, including the ongoing assessment of children with special needs; assistive technology; and collaboration among parents, teachers, administrators, and students. Special attention will be given to the evaluation of various teaching methodologies and the development of appropriate academic and behavioral interventions for students with disabilities. **Taken concurrently with EDUC 315, EDUC 329, EDUC 341 and EDUC 342.**

EDUC 326 TESOL Practicum I: Elementary (1, F)

Two half days or one full day per week in an elementary TESOL placement. Focus on observing children and the learning environment, assisting the classroom teacher with daily routines, and supporting the learning of individual children. **Taken concurrently with EDUC 320, EDUC 328, and EDUC/LING 371. Prerequisites: EDUC 202, EDUC 219, and EDUC 235. (Pending state approval.)**

EDUC 327 TESOL Practicum II: Secondary (1,S)

Two half days or one full day per week in a secondary TESOL placement. Focus on observing children and the learning environment, assisting the classroom teacher with daily routines, and supporting the learning of individual children. **Taken concurrently with EDUC 329 and EDUC 372. Prerequisites: EDUC 235, EDUC 326, EDUC 328. (Pending state approval.)**

EDUC 328 Foundations of Language and Literacy for Diverse Learners I (4, F)

Introduces the nature of children's language and literacy learning and the assessment and instruction of the English language arts in inclusive classrooms. Considers the means of developing a learning environment that nurtures the language learning of all children. Students articulate a philosophy of teaching the English language arts and begin to develop their program portfolio. **Prerequisites: EDUC 219 and EDUC 235 or permission of instructor. Taken concurrently with EDUC 314 and EDUC 320.**

EDUC 329 Foundations of Language and Literacy for Diverse Learners II (4, S)

Examines authentic assessment and instruction of the English language arts in inclusive classrooms with particular focus on children with special needs, English language learners, and students from diverse cultures. Students focus on educational research and the continued development of their program portfolio. **Prerequisite: EDUC 328. Taken concurrently with EDUC 315, EDUC 325, EDUC 341, and EDUC 342.**

EDUC 33X Secondary Teaching: Content Methods and Practicum (4, S)

Adolescence Education majors register for the appropriate content area methods course. This course should be taken the year prior to student teaching. Each course will address instructional methods, New York State Learning Standards, and curricular issues particular to the given content. Practicum placement with a secondary teacher certified in the target content area is part of the course. **Prerequisite: EDUC 338**

EDUC 332 English Methods

EDUC 333 Foreign Language Methods

EDUC 334 Math Methods

EDUC 335 Science Methods

EDUC 336 Social Studies Methods

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

Examination and analysis of the strategies and dynamics of teaching and learning in middle and high school classrooms. Attention given to technology integration in classroom settings and to implementation of developmentally appropriate instruction. Students will begin the ADE junior practicum placement with a certified secondary teacher in their content area. **Prerequisite: EDUC 218 and EDUC 219.**

EDUC 341 Social Studies in Inclusive Classrooms (2, S)

Exploration of methods and materials for addressing the needs of diverse students in pursuing various aspects of national and state curriculum standards in social studies. The focus will be on helping students develop a knowledge base and skills in areas such as: history, geography, economics, civics, cultural studies, and global education. **Taken concurrently with EDUC 315, EDUC 325, EDUC 329, and EDUC 342.**

EDUC 342 Mathematics and Science in Inclusive Classrooms (4, S)

Exploration of methods and materials pertaining to teaching elementary mathematics and science in inclusive settings. National curriculum standards are examined as well as New York State Learning Standards in each subject. **Taken concurrently with EDUC 315, EDUC 325, EDUC 329 and EDUC 341.**

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

Designed as an introduction to bilingual education and bilingualism. Study of the sociolinguistic and psycholinguistic issues that surround bilingualism and bilingual education. An attempt is made to balance the

psychological and the sociological, the macro education issues and the micro classroom issues, the linguistic and the sociopolitical, and to balance discussion at the individual and societal levels. Recommended prerequisite: LING 220.

EDUC 371 TESOL Methods: ELA (2,F)
Examines the language, reading and writing development of English language learners. It explores assessment and instructional methods of teaching English Language Arts to speakers of languages other than English. It also explores ways of creating a classroom learning environment that encourages English language and literacy development for all learners. **Prerequisites: LING 220, LING 350, and EDUC 351, or permission of instructor.** (*Pending state approval.*)

EDUC 372 TESOL Methods: Content Areas (2,S)
Explores assessment and instructional methods designed to make content areas (math, science, social studies) concepts comprehensible while promoting English language development. **Taken concurrently with EDUC 327 and EDUC 329. Prerequisite: EDUC 371.** (*Pending state approval.*)

***EDUC 408 Inclusive Childhood Student Teaching** (10, F&S)
Twelve weeks in a supervised student teaching experience in inclusive classroom setting(s), either primary (grades one-three) or intermediate (grades four-six) depending on the elementary practicum placement. **Designed for students who have completed all education course work except EDUC 425 and EDUC 485. Students must also register for EDUC 203, 204, 425 & 485. (See department policy on “Employment and Activities While Student Teaching.”)**

***EDUC 409 Secondary Student Teaching I** (6, F&S)
Minimum seven-week placement in either grades 7-9 or grades 10-12 in the appropriate content area. The experience will include a minimum of two weeks with full teaching load responsibilities. **Prerequisite: EDUC 33x (Secondary Teaching Methods), EDUC 338, and EDUC 313. Taken concurrently with EDUC 203, 204, 410 & 411. (See policy below on “Employment and Activities while Student Teaching.”)**

***EDUC 410 Secondary Student Teaching II** (6, F&S)
Minimum six-week placement in either grades 7-9 or grades 10-12 in the appropriate content area. The experience will include a minimum of two weeks with full teaching load responsibilities. **Prerequisite: EDUC 33x (Secondary Teaching Methods), EDUC 338, and EDUC 313. Taken concurrently with EDUC 203, EDUC 204, EDUC 409 & EDUC 411. (See policy below on “Employment and Activities while Student Teaching.”)**

***EDUC 411 Senior Capstone: Seminar in Secondary Teaching** (2, F&S)
Serves as a capstone course to the major, exploring issues related to the teaching professions through reflective thinking and research-based learning. **Taken concurrently with EDUC 409 & 410.**

***EDUC 422 TESOL Student Teaching: elementary level** (6, F&S)
Minimum six-week placement in TESOL setting at the elementary level (grades K-6). The experience will include a minimum of two weeks with full teaching responsibilities.

***EDUC 423 TESOL Student Teaching: secondary level** (6, F&S)
Minimum six-week placement in TESOL setting at the secondary level (grades 7-12). The experience will include a minimum of two weeks with full teaching responsibilities.

***EDUC 424 Senior Capstone: Seminar in TESOL** (2, F&S)
Serves as a capstone course to the major, exploring issues related to the teaching professions through reflective thinking and research-based learning. **Taken concurrently with EDUC 422 & 423.**

EDUC 425 Issues in Inclusive Education II (2, F&S)
This course addresses issues in inclusive education, giving explicit attention to legislative initiatives and revisions impacting the education of students with special needs, as well as the professional roles and responsibilities of special educators. The thorough development of an individualized education program is a key course component. **Taken concurrently with EDUC 203, EDUC 204, EDUC 408 and EDUC 485.**

***EDUC 485 Senior Capstone: Seminar on Reflective Teaching** (2, F&S)
Provides an opportunity for inclusive childhood student teachers to summarize and reflect on their knowledge and understanding of the liberal arts and the nature of teaching and learning in inclusive classrooms and to apply their understanding of the intellectual tools of their major disciplines through the final revision and development of their program portfolio. **Taken concurrently with EDUC 408 and EDUC 425.**

EDUC 230, 330, 430 Special Topics	(2, or 4 OD)
Depending on interest, demand and faculty availability, courses will be offered to allow students to consider issues and aspects of educational theory and practice which are not fully explored elsewhere in the curriculum.	
EDUC 191, -2; 291, -2; 391, -2; 491, -2 Independent Study	(2, or 4 OD)
EDUC 496 Honors in Education	(2, or 4 OD)

***IMPORTANT INFORMATION FOR STUDENT TEACHING**

Employment and Activities while Student Teaching:

The college seeks to provide each student with the greatest opportunity for success during student teaching. Students are **expected** to eliminate all employment during the student teaching semester. However, because students may have extenuating circumstances that necessitate exemption from this restriction, the Teacher Education Committee agrees that under the following guidelines, a student may be permitted to work:

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

PLEASE NOTE: If outside employment hinders a student's teaching performance, the Teacher Education Committee reserves the right to require the student teacher to further limit or eliminate work hours. Failure to follow the appeal procedure may result in the student being removed from the field experience. Students may be members of intercollegiate teams and club sports only if they have received special approval from the Teacher Education Committee prior to placement. During the student teaching related classes, students may not enroll in other college classes with the exception of EDUC 411, 424, 425, 485 or 496.

Engineering

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

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

Web site: www.houghton.edu/academics/programs/physics

Phone: 585.567.9280

Applied Physics Major — Engineering Emphasis: BS (35 hours in major; 16 in prerequisites; 12 in co-requisites)

General Information

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

The requirements for the engineering physics major are as follows:

Prerequisites (16):

PHYS 151,152	General Physics I, II.....	8
MATH 181	Calculus I.....	4
MATH 182	Calculus II.....	4