

Education

School of Education
(907) 474-7341
www.uaf.edu/educ/

B.A., M.Ed. Degree and Post-baccalaureate Licensures

Minimum Requirements for Degree: 130 credits;
Post-baccalaureate secondary licensure: 33 credits;
Music K-12 licensure: 33 credits (Contact the music department at
(907) 474-7555 or see page 154.)
Art K-12 licensure: 33 credits

The University of Alaska Fairbanks is in full compliance with the institutional reporting requirements mandated in Title II of the Higher Education Act Amendments of 1998. Please contact the School of Education for a copy of the completed report.

UAF serves students from all of Alaska as well as from other states and nations. It is particularly committed to enhancing educational opportunities for the state's rural and Native populations. UAF education programs prepare educators to work in urban and rural Alaska and to work with multicultural and minority—especially Alaska Native—students.

Through its rural campuses, the university is responsive to local and regional needs, including open educational access to its programs. Special strengths exist in the use of educational technology which provides distance delivery of selected programs to many areas of the state.

The School of Education offers two degrees: a bachelor of arts in elementary education and a master of education. The school also offers post-baccalaureate course work and internship experiences preparing candidates for Alaska state licensures in teaching.

The UAF School of Education is approved by the Alaska Department of Education and Early Development to recommend its students for Alaska licensure as elementary and secondary teachers and school counselors. Education programs are offered and faculty are located on the Fairbanks campus and at the branch campus centers, in keeping with the university's commitment to preparing educators for rural Alaska. Courses are available on-site and by distance delivery through the Kuskokwim (Bethel), Bristol Bay (Dillingham and Naknek), Interior-Aleutians (Unalaska and rural education centers throughout the Interior), Chukchi (Kotzebue), and Northwest (Nome) campuses, as well as on the Fairbanks campus. Faculty research in cross-cultural studies, curriculum and instruction, language and literacy, and small rural schools supports the mission of the School of Education.

Priority for enrollment in field-based courses is given to rural students formally admitted to degree and licensure programs. All inquiries should be addressed to one of the rural campuses or to the School of Education's Student Services Office.

Candidates for elementary and secondary licensures are required to have use of/own a laptop computer. This computer may be of any type but must have capacities that enable the candidate to meet School of Education requirements. Candidates enrolled in School of Education courses at any level (with the exception of 500 level professional development courses) are eligible to purchase a laptop computer through the School of Education. Laptop requirements and purchase information can be viewed by accessing the "Technology Requirement" link at the website of the School of Education, www.uaf.edu/educ/. If you have questions about how a laptop purchase will fit in with your current financial aid package, please contact the UAF Financial Aid Office.

Licensure Information

UAF education programs are approved by the Alaska State Board of Education and accredited by the National Council for the Accreditation of Teacher Education. For information about these programs, contact the Student Services Office in the UAF School of Education.

Certification is awarded by the Alaska Department of Education and Early Development in Juneau. Therefore, students must meet all requirements specified by AK-DOEED at the time of their application for the teaching certificate. In addition to completing an approved teacher training program, the state of Alaska requires that all initial applicants provide evidence of passing Alaska qualifying scores on the Praxis I, Academic Skills Assessment including the Pre-Professional Skills Test (PPST), and/or the Computer-Based Academic Skills Assessment (CBT). For additional information, see the Alaska State Department of Education and Early Development web site.

B.A. Degree, Elementary Education

Students in the bachelor of arts in elementary education degree program are assessed relative to national and state standards, including National Council for Accreditation of Teacher Education standards, the Alaska Teacher Standards, the Alaska Student Content Standards and the Alaska Standards for Culturally Responsive Schools. Course work provides students on the Fairbanks campus and in remote sites with the experience necessary to be eligible for an elementary teacher license. The integrated major/minor degree requirements are designed to prepare students to meet standards that recognize, respect and build upon Alaska's cultural, linguistic and geographic factors.

The interdisciplinary degree requirements provide breadth in the content areas necessary for successful teaching at an elementary level. They provide depth in the opportunities to connect theory and practice in real classroom, school, and community contexts. Students completing this degree benefit from collaborative efforts with academic departments across campus and from School of Education partnerships with a wide range of Alaska's rural and urban schools and districts.

The degree has four central components: (1) subject area course work in the designated UAF core requirements; (2) additional subject area course work in those areas important for successful teaching at an elementary level; (3) an integrated set of education courses and fieldwork in schools and the community to provide the foundation for a successful professional internship year; and (4) a capstone year-long school internship with a mentor teacher, with concurrent enrollment in professional course work that focuses on the integration and application of theory, research and practice in real school environments. Students follow the calendar of the school or district in which they complete their internship. Candidates serving internships are charged a \$150 fee per semester.

Degree and program requirements include multiple types of on-going assessments throughout the programs. There is a strong emphasis on performance assessment and portfolio development and evaluation relative to national and state standards.

Transition/Admission Requirements

B.A. in elementary education students should enroll in the School of Education's recommended sequence of core and major course requirements during their first two years. By following the sequence recommended in Transition One (see School of Education website), students will be knowledgeable about their status relative to their progress toward meeting the criteria for admission to the professional internship year. To make certain that students will be able to receive the support necessary to prepare for the internship year, all B.A. in Elementary Education students are required to submit Praxis I scores (passing scores are not required until applying to the internship year) to the School of Education prior to enrolling in EDSE 482, and Praxis II (test 0014) test scores must be submitted with the Intern Year Admission packet. Prior to enrollment in professional-year courses and prior to receiving an internship placement in a classroom, all students must submit the materials listed below and meet admission requirements as described in Transition Two. **Declaring a B.A. major in elementary education does not guarantee admission to the professional internship year.**

Internships begin in August or September on the date when teachers return to school (this varies across districts). Since internship placements are arranged with principals and mentor teachers in the spring, all materials necessary for determining admission to the School of Education must be submitted by Feb. 1. Faculty in the School of Education consider multiple criteria in making valid and reliable judgments about each applicant's knowledge, skills, and professional characteristics prior to approval for the year-long internship in a classroom with elementary children.

Students must submit the following information to the School of Education by Feb. 1:

1. Copies of transcripts from all institutions attended.
2. Evidence of plan of completion of all B.A. degree in elementary education degree courses by August 1st (except for those required in the Professional Internship Year), with a minimum of a 2.75 overall GPA, a 2.0 in each major academic area, and a C or better in the UAF Core communication courses and in all required education and math courses. Students with less than a 2.75 overall GPA may be considered for conditional admission in special circumstances.
3. Alaska Passing scores from the Praxis I exams in reading, writing and math.
4. Score from Praxis II exam (test 0014). Achieving Alaska passing score is not required.
5. Two letters of reference that address qualifications and potential as a teacher.
6. A current and complete resume/curriculum vitae.
7. Two one-page essays on topics determined by the School of Education.
8. Completed Elementary Teacher Education Academic Analysis and Life Experiences/Work Form and the Life Experiences Form to provide information on breadth and depth of prior course work and/or documented life experiences relative to ten Alaska Student Content Standard areas.
9. A one-to-two-page autobiographical sketch (appropriate for presenting to prospective principals and mentor teachers).
10. Extemporaneous writing sample. Contact the School of Education advising office for date, time and location information.
11. Evidence of successful experiences in teaching and learning situations.
12. Evidence of ability to work collaboratively and respectfully in cross-cultural contexts.
13. Completed Alaska Student Teacher Authorization Packet (including fingerprint cards and criminal background check. Forms are available from the School of Education).
14. Complete an interview, when requested.
15. Some school districts may require interns to pass a general physical exam and require additional shot records.

Note: Students are admitted for a specific academic year and must reapply if they do not enroll in the year in which they were reviewed.

Major—B.A. Degree

1. Complete the general university requirements. (See page 116. As part of the core curriculum requirements, complete the following*: ANTH/SOC 100X, HIST 100X, PS 100X, MATH 107X* or 161X*, ART/MUS/THR 200X, BIOL 100X or 104X, CHEM 100X or PHYS 115X**. Students who choose the language option to meet core perspectives on the human condition requirements can submit their language credits only for the ENGL/FL 200X and the core ethics requirements.)

2. Complete the following B.A. degree and program (major) requirements:
 - a. Complete the following mathematics requirements:*

MATH 205—Mathematics for Elementary School Teachers I.....	3
MATH 206—Mathematics for Elementary School Teachers II.....	3
 - b. Complete one of the following:

GEOS 100X—Introduction to Earth Science	4
GEOS 101X—The Dynamic Earth	4
GEOS 120X—Glaciers, Earthquakes and Volcanoes: Past, Present and Future	4
PHYS 116X—Physical Science II **	4
 - c. Complete the following social sciences requirements:

ANTH 242—Native Cultures of Alaska	3
ED/PSY 245—Child Development	3
GEOG 101—Introductory Geography (3) or GEOG 203—World Economic Geography (3).....	3
HIST 131—History of the U.S.	3
HIST 461W—History of Alaska (3) or HIST 115—Alaska, Land and Its People (3)	3
PSY 101—Introduction to Psychology	3
 - d. Complete the following humanities requirements:

ENGL 271—Introduction to Creative Writing—Fiction (3) or ENGL 272—Introduction to Creative Writing—Poetry (3) or ENGL 314W,O/2—Technical Writing (3) or JRN 311W—Magazine Article Writing (3).....	3
ENGL 306—Survey of American Literature: Beginnings to the Civil War (3) or ENGL 307—Survey of American Literature: Civil War to Present (3) or ENGL 308—Survey of British Literature: Beowulf to the Romantic Period (3) or ENGL 309—Survey of British Literature: Romantic Period to the Present (3) or complete another literature-focus course (3)	3
ED 486O/2—Media Literacy (3) or JRN 308—Film and TV Criticism.....	3
 - e. LING 100—Language, Linguistics and Education (3)
or LING 101—Nature of Language (3)
or LING 303W,O—Language Acquisition (3)
 - f. ED 429—Teaching with Technology
 - g. Complete the following education requirements:*

ED 110—Becoming a Teacher in the 21st Century	1
ED 201—Introduction to Education.....	3
ED 204—Literature for Children	3
ED 330—Assessment of Learning.....	3
ED 350—Communication in Cross-Cultural Classrooms (3) or ED/ANS 420—Alaska Native Education (3) or ED/ANS 461—Native Ways of Knowing (3)	3
ED 410W—Foundations of Literacy Development	3
EDSE 422—Curriculum and Strategies II: High Incidence.....	3
EDSE 482—Inclusive Classrooms for All Children	3
 - h. Complete the following professional internship year with integrated course work (first semester):

ED 411—Reading, Writing, Language Arts: Methods and Curriculum Development.....	3
ED 412W—Integrated Social Studies and Language Arts: Methods and Curriculum Development.....	3
ED 466—Internship and Collaborative Student Teaching	3
ED 467—Synthesizing the Standards I.....	1
ED 478—Math Methods and Curriculum Development	2
ED 479—Science Methods and Curriculum Development.....	2
 - i. Complete the following professional internship year with integrated course work (second semester):

ED 310—Art, Music and Drama in Elementary Classrooms	2
ED 327—Physical and Health Education for Elementary Teachers	2
ED 468O—Internship and Student Teaching.....	6
ED 469—Synthesizing the Standards II	2



3. Minimum credits required 130
- * Student must earn a C grade or better in each core communications, mathematics and education course.
 - ** If PHYS 115X is completed for the core, a student cannot take PHYS 116X to fulfill the science requirement in the major.

Minor—Education

The education minor consists of two options. Option A is an education minor designed for students who intend to pursue a license in elementary education. Students who complete ED 110, 201, 330, 410 and EDSE 482 with grades of C or better will be allowed to substitute this sequence for ED 624, 625 and 626 in the post-baccalaureate elementary licensure program available on the UAF campus.

Option B is designed for any student interested in education issues who does not intend to pursue a license in elementary education.

Option A*

1. Complete the following:
 - ED 110—Becoming a Teacher in the 21st Century 1
 - ED 201—Introduction to Education 3
 - ED 204—Literature for Children 3
 - ED 330—Assessment of Learning 3
 - ED 350—Communication in Cross-Cultural Classrooms (3)
or ANS/ED 420—Alaska Native Education (3) 3
 - ED 410—Foundations of Literacy Development 3
 - EDSE 482—Inclusive Classrooms for All Children 3
2. Minimum credits required 19

Option B**

1. Complete the following:
 - ED 110—Becoming a Teacher in the 21st Century 1
 - ED 201—Introduction to Education 3
 - ED 350—Communication in Cross-Cultural Classrooms (3)
or ANS/ED 420—Alaska Native Education (3) 3
 - PSY 240—Lifespan Developmental Psychology (3)
or ED/PSY 245—Child Development (3) 3
 - Approved education electives*** 6
 2. Minimum credits required 16
- * Practicum required in each course.
 - ** Practicum may be required in each education course.
 - *** Contact the School of Education’s Student Services Office for list of approved elective courses.

Secondary Post-Baccalaureate Licensure Program

Program delivery is offered in Fairbanks and in areas served by the College of Rural and Community Development (CRCDD) campuses and their service areas with the exception of the Aleutian-Pribilof Center.

This is an intensive, classroom-based secondary licensure program (30 credits) that prepares post-baccalaureate candidates for secondary (grades 7-12) teaching positions. The program is specifically designed to prepare candidates to teach in multicultural settings in Alaska. Content that addresses multicultural issues in general, and Alaska rural issues in particular, is contained specifically in EDSC 457—Multicultural Education and School-Community Relations, and is a fundamental component of the course work within the program. When funding is available, all secondary Fairbanks candidates participate in a rural practicum. The program is accredited by NCATE standards until 2010.

Student outcomes for the program are based on the Standards for Alaska’s Teachers located at: <http://www.eed.state.ak.us/standards/pdf/teacher.pdf>.

At the end of the program, if students have successfully met all of the program requirements, they will be eligible to apply for an Alaska initial teaching license and will receive certificates of completion from UAF.

Candidates who enter the Secondary Post-Baccalaureate Licensure program are required to have use of/own a laptop computer before they begin their internships in the fall semester of their professional year.

Program Options

Fast Track Option

The Fast Track Option is an intensive three-semester program that allows candidates (one year unpaid interns) to complete the secondary licensure program as full-time students in 12 months. Candidates take classes “summer-fall-spring.” The academic year-long internship is completed during the fall and spring semesters.

Two-Year Option

The Two-Year Option allows candidates (two year unpaid interns) to complete the secondary post-baccalaureate licensure program as part-time students over a period of 18-24 months. The last semester of the program requires full-time placement at a public school site.

Teaching While Training Option

The Teaching While Training Option is for candidates (teacher interns) who have secured a teaching position with an Alaskan School District. Generally, this option is available only to those candidates in areas of teacher shortage. Candidates complete the secondary post-baccalaureate licensure program over a period of 24 months.

Admissions Process and Requirements

Admission to the undergraduate secondary post-baccalaureate licensure program includes meeting requirements of the undergraduate admission process of the School of Education. Students take their courses at the undergraduate (400) level and will NOT be able to apply these courses towards a master of education degree.

Submit the following information to the UAF Office of Admissions:

1. UAF undergraduate application and application fee.
2. Official transcript of bachelor’s degree from accredited institution, minimum GPA of 2.75. Applicants who have attended more than one university should include transcripts from all universities.

Submit the following information to the School of Education:

1. Passing scores from the Alaska Praxis I exam in reading, writing and mathematics.
2. Academic Analysis (contact the School of Education for examples.)
3. Three current letters of reference that address qualifications and potential as a teacher.
4. A personal statement of 500-800 words explaining your motivation for becoming a teacher. Describe how your academic qualifications and work experiences have prepared you for a career in teaching. Elaborate on your personal strengths, including your ability to work collaboratively with others. Describe your experiences with adolescents in instructional and supervisory capacities. Explain why you believe you can help young people of all cultures be successful in school.
5. Extemporaneous writing sample. Contact the School of Education Advising Office for date, time and location information.
6. Demonstrated evidence of technology competence. Shown by successful completion of ED 237—Technology Tools, or by passing the School of Education’s computer technology competency test. Applicants who have not met this requirement by the beginning of the summer program course work will be required to complete ED 237 during the summer program.
7. Demonstrated evidence of content competency in one of the UAF approved secondary endorsement areas (see www.uaf.edu/educ).
 - a. All candidates must submit scores from the relevant content knowledge Praxis II test. Scores must meet the scores set by the State of Alaska for “highly qualified”. (see <http://www.eed.state.ak.us/TeacherCertification/hq.html>).
 - b. Additional content courses may be recommended or required for placement in a secondary internship. Candidates should seek early advising regarding content requirements.



- c. In addition, candidates must demonstrate evidence of content area preparation in the teaching area for which the applicant is seeking endorsement. Specialized Professional Associations have prepared lists of courses, completion of which demonstrates competencies. Courses that comprise these lists may or may not constitute a content major. The Secondary Post-Baccalaureate Licensure Program recognizes completion of these course lists as demonstrations of competency. However, candidates who fulfill list requirements are still required to take appropriate Praxis II tests.
 - d. The Department of Education and Early Development will, upon request, add additional endorsement areas based on an 18 credit minor posted on an interns' transcript.
8. Applicants must submit a placement packet. Contact the School of Education for specific guidelines. The School of Education determines placement approval, change or termination.

Application Review Process

Applications are due March 1 and are reviewed thereafter for admission into the summer semester. Applications of outstanding candidates may be considered through spring semester. A candidate may be admitted, not admitted, or admitted with stipulations. Stipulations are specified when additional development in a particular area(s) is needed before beginning a secondary post-baccalaureate program.

The UAF School of Education coordinates with appropriate academic departments the review and evaluation of the candidate's qualifications, professional experiences and academic performance based on the contents of his/her application. The secondary post-baccalaureate program is a selective teacher education program. A comprehensive system including multiple measures is used to assess personal characteristics, communication skills and basic skills of candidates preparing to teach. Multiple assessment measures include a review of transcripts, content area strengths and/or Praxis II scores, personal statement and/or writing proficiency exams, Praxis I scores and letters of reference. A personal interview will be required as part of the admission process.

Upon Acceptance to the Program

The School of Education has a systematic procedure for monitoring the progress of education students from admission through completion of their professional education program to determine if they should continue the program, be advanced to the secondary teaching internship and eventually be recommended for a teaching license. In assessing candidate progress in knowledge, skills and disposition, faculty will review grades, observations, faculty recommendations, demonstrated academic competence and recommendations from the appropriate professionals in the schools. Systematic approaches are used to assist education candidates who are making unsatisfactory progress in their programs, but still maintain potential for successful completion.

Following are specific criteria for entry to the secondary teaching internship:

- successful completion of summer program courses;
- approval of faculty to enter the Secondary Education Internship;
- some school districts may require candidates to pass a general physical exam and require additional shot records; and
- State Alaska Certificate of Authorization, fingerprint cards and money order in the amount of \$66 payable to the School of Education by June 1st (this fee is non-refundable once submitted to the state of Alaska). UAF School of Education provides these materials which will then be submitted to the state of Alaska for a criminal background check. Fees are subject to change.

Professional Field Experiences

The Secondary Post-Baccalaureate Licensure Program includes a comprehensive internship experience in an educational setting. Internship placements are arranged and supervised by university faculty in partnership with the principal and staff from the public school. University course work and classroom practice are closely linked

and communication about performance in both the course work and classroom practice is shared among the partners. Internships follow the K-12 school year calendar and not the university academic year calendar.

Performance in the internship must meet stated competencies and individual outcomes. Performance evaluations determine the candidate's progress toward meeting the State of Alaska Standards for Alaska's Teacher and the International Society for Technology in Education's National Education Technology Standards and Performance Indicators for All Teachers and performance guidelines of Specialty Performance Organizations.

It is expected that candidates will demonstrate appropriate professional characteristics with respect to their actions, attitudes and performance. Teacher candidates are required to adhere to the characteristics of professionalism as published in the Secondary Post-Baccalaureate Licensure Handbook, and to abide by the State of Alaska Code of Ethics of the Education Profession. Unacceptable academic performance, an unprofessional attitude, unsatisfactory field reports, violation of professional ethics, or other factors that may result in removal from the field experience and denial of the Institutional Recommendation for teacher certification.

Internship placements are made in partnership with participating school districts, which may request additional information and/or preparation from candidates according to the district's established policies and practices. Because cooperating districts also determine the number of placements available for candidates, placement may become competitive if the number of applicants exceeds the number of spaces. Districts also reserve the right to refuse or terminate placements when candidates do not meet a minimum standard of performance. Thus, while the University will make every effort to identify appropriate field experiences, admission to the Secondary Post-Baccalaureate Licensure program does not guarantee and internship placement.

Program Requirements

1. Complete the following for secondary licensure:
 - EDSC 402—Methods of Teaching in the Secondary School 3
 - EDSC 407—Reading Strategies for Secondary Teachers 3
 - EDSC 414—Learning, Development and Special Needs Instruction 3
 - EDSC 415—Foundations of Modern Educational Practices..... 3
 - EDSC 431—Secondary Instruction and Assessment in the Content Area (3)*
 - or EDSC 432—English/Language Arts Secondary Instruction and Assessment (3)*
 - or EDSC 433—Mathematics Secondary Instruction and Assessment (3)*
 - or EDSC 434—Science Secondary Instruction and Assessment (3)*
 - or EDSC 435—Social Studies Secondary Instruction and Assessment (3)*
 - or EDSC 436—Art Secondary Instruction and Assessment..... 3*
 - EDSC 442—Portfolio Preparation: Integrating Theory and Practice..... 2
 - EDSC 457—Multicultural Education and School-Community Relations 4
 - EDSC 458—Classroom Organization and Management 3
 - EDSC 471—Secondary Teaching: School Internship I and Seminar 3
 - EDSC 472—Secondary Teaching: School Internship II and Seminar 3
 2. Minimum credits required30
- * Candidates must take the section or course that corresponds with their major teaching content areas.



K-12 Art Endorsement

Offered on the Fairbanks campus only, this is an intensive, classroom-based K-12 art licensure program (33 credits) that prepares post-baccalaureate candidates for K-12 teaching positions. The program is specifically designed to prepare candidates to teach in multicultural settings in Alaska. The content will specifically identify and discuss current issues of art education and applying Alaska Content/Performance Standards and Frameworks as well as National Standards for Art Education.

At the end of the program, if students have successfully met all of the program requirements, they will be eligible to apply for an Alaska initial teaching license and will receive certificates of completion from UAF.

Candidates who enter the K-12 Art Licensure program are required to have use of/own a laptop computer before they begin their internships in the fall semester of their professional year.

For program options and professional field experiences information, please see information listed in the catalog (page 192) for the secondary post-baccalaureate licensure program.

Admission Process and Requirements

Applicants will follow the admission process and requirements listed in the catalog (page 200) for the Secondary Post-Baccalaureate Licensure Program, with the exception that applicants must have a bachelor's degree in art from an accredited university or college. Applicants should be aware that additional content course work may be required, depending on content of degree. Additional course work, as determined by the appropriate departments, may mean a delay of program admission until requirements are fulfilled.

Program Requirements

Summer:

EDSC 415—Foundations of Modern Educational Practices.....	3
EDSC 414—Learning, Development and Special Needs Instruction	3
PSY 240—Lifespan Development (3) or (preferred) PSY 245—Child Development (3).....	3

Fall:

EDSC 402—Methods of Teaching in the Secondary School	3
EDSC 436—Secondary Art Instruction and Assessment	3
ED 453/ART 459—Secondary Internship.....	3
EDSC 458—Classroom Organization and Management	3

Spring:

ED 449—Elementary Art Methods	3
ED 452/ART 458—Elementary Internship.....	3
EDSC 457—Multicultural Education and School-Community Relations	4
EDSC 442—Portfolio Development	2

Minimum credits required33

Baccalaureate Core Requirements

All degrees (e.g. B.A., B.S., etc.) require additional courses.
Refer to specific degree and program requirements.

COMMUNICATION (9)

Complete the following:

ENGL 111X (3) _____
ENGL 190H may be substituted.

Complete one of the following:

ENGL 211X OR ENGL 213X (3) _____

Complete one of the following:

COMM 131X OR COMM 141X (3) _____

PERSPECTIVES ON THE HUMAN CONDITION (18)

Complete all of the following four courses:

ANTH 100X/SOC 100X (3) _____
ECON 100X OR PS 100X (3) _____
HIST 100X (3) _____
ENGL/FL 200X (3) _____

Complete one of the following three courses:

ART/MUS/THR 200X, HUM 201X OR ANS 202X (3) _____

Complete one of the following six courses:

BA 323X, COMM 300X, JUST 300X, NRM 303X,
PS 300X OR PHIL 322X (3) _____

OR complete 12 credits from the above courses PLUS

- two semester-length courses in a single Alaska Native language or other non-English language **OR**
- three semester-length courses (9 credits) in American Sign Language taken at the university level.

MATHEMATICS (3)

Complete one of the following:

MATH 103X, MATH 107X, MATH 161X OR STAT 200X (3-4) _____
** No credit may be earned for more than one of MATH 107X or 161X.*

OR complete one of the following:*

MATH 200X, MATH 201X, MATH 202X,
MATH 262X OR MATH 272X (4) _____

**Or any math course having one of these as a prerequisite*

NATURAL SCIENCES (8)

Complete any two (4-credit) courses:

ATM 101X (4) _____
BIOL 100X (4) _____
BIOL 103X (4) _____
BIOL 104X (4) _____
BIOL 105X (4) _____
BIOL 106X (4) _____
BIOL 111X (4) _____
BIOL 112X (4) _____
CHEM 100X (4) _____
CHEM 103X (4) _____
CHEM 104X (4) _____
CHEM 105X (4) _____
CHEM 106X (4) _____
GEOG 205X (4) _____
GEOS 100X (4) _____
GEOS 101X (4) _____
GEOS 112X (4) _____
GEOS 120X (4) _____
GEOS 125X (4) _____
MSL 111X (4) _____
PHYS 102X (4) _____
PHYS 103X (4) _____
PHYS 104X (4) _____
PHYS 115X (4) _____
PHYS 116X (4) _____
PHYS 175X (4) _____
PHYS 211X (4) _____
PHYS 212X (4) _____
PHYS 213X (4) _____

LIBRARY AND INFORMATION RESEARCH (0-1)

Successful completion of library skills competency test **OR**

LS 100X or 101X prior to junior standing (0-1) _____

UPPER-DIVISION WRITING AND ORAL COMMUNICATION (0)

Complete the following:

Two writing intensive courses designated (W) (0) _____
One oral communication intensive course designated (O) (0) _____
OR two oral communication intensive courses designated (O/2), at the upper-division level (see degree and/or major requirements) (0) _____

TOTAL CREDITS REQUIRED **38-39**