

Education

Education (EDUC) - School of Education

School of Education

Department of Teacher Education

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The Teacher Education program is in alignment with Minnesota state licensure requirements. This catalog is being prepared at the same time that all teacher education licensure programs are being prepared for state reaccreditation. This reaccreditation process coupled with the fact that state licensure requirements may quickly change means that your actual program may vary slightly from that cited in this catalog. Please maintain contact with a teacher education advisor for the most current information on your program.

Teacher Education programs at the University of St. Thomas develop knowledgeable, reflective practitioners committed to social justice.

The University of St. Thomas School of Education offers a full range of undergraduate and graduate elementary/middle level and secondary/middle level teacher licensure programs. These standards-based programs embrace the liberal arts, emphasize ethical practice, and prepare creative, reflective educators dedicated to the success of all learners. They prepare professional educators who can demonstrate appropriate knowledge, skills and dispositions related to:

1. subject matter
2. student learning
3. diverse learners
4. instructional strategies
5. learning environments
6. communication
7. planning for instruction
8. assessment of learning
9. reflection, scholarship, and continuous professional development
10. collaboration, ethics, and relationships

Students who are recommended for licensure through the St. Thomas Teacher Education Department are part of a tradition that goes back over three-quarters of a century. Programs are fully accredited by the North Central Association of Colleges and Secondary Schools and are designed to meet or exceed Minnesota State Board of Teaching licensure requirements. St. Thomas is an affiliate member of the Teacher Education Accreditation Council.

Because of the number of required courses and the options available, it is suggested that students considering an education degree contact a department adviser as early as possible in their college career. Ongoing state licensure rule changes make careful planning particularly important. Department and School of Education handbooks and information supplements outline specific departmental programs and policies and are available online and in the Teacher Education Department office in Minneapolis Opus Hall (MOH 302).

Admission to the Program

Students typically begin their application for admission to the teacher education program during their sophomore year, while enrolled in Block I. Candidates typically complete their application during Block II. Criteria for admission to the education program include:

GPA/Grade minimum requirements:

- Cumulative GPA of 2.75 for all credits earned at UST
- A grade of "C" or better for all Education department coursework
- A grade of "C-" or better for all content area and allied coursework
- Positive recommendations from major or co-major advisor, education advisor and interview team
- Demonstrated ability to consistently meet all program technical standards
- Demonstrated ability to consistently exhibit all program professional behavior standards
- Evidence of a positive introductory level field experience
- Completion of the Praxis I - Pre-Professional Basic Skills Test (PPST)

Students seeking licensure to teach in the state of Minnesota must complete (but not necessarily pass) all three components (reading, writing and mathematics) of the PPST prior to program admission. Students will need to pass all three components by the time of program completion in order to apply for licensure in the state of Minnesota.

Program Sequence

Elementary (K-6) and Specialist (5-8 or K-8) Licensure

Block I – EDUC 210 and 211, 212

Block II – EDUC 330 and 331, 350

Note: Allied Math and Science requirements must be completed as a prerequisite to Block III.

Block III – EDUC 369, 370, 371, 372, 373, 374 (concurrent registrations required)

Block IV – EDUC 456, 460, 461 (concurrent registrations required)

Secondary/Middle Level (5-12) Licensure

Block I – EDUC 210 and 211, 212

Block II – EDUC 330 and 331, and 355

Block III – EDUC 381, 382, and 383 (concurrent registration required)

Block IV – EDUC 456, 460, 461 (concurrent registrations required)

K-12 Licensure

Block I – EDUC 210 and 211, 212

Block II – EDUC 330 and 331

Block III – See specific K-12 program for Block 3 courses

Block IV – EDUC 456, 460, 461 (concurrent registration required)

Program Options*Plan A*

Elementary and middle-level and secondary and middle-level education students who complete program requirements and graduate within four years follow Plan A.

Plan B

Teacher education students who find it difficult to complete their education program in four years may opt for Plan B. This allows students to complete licensure at the graduate level after earning their undergraduate degree. Students who seek the Plan B option should consult with a department advisor at least one semester prior to application for Plan B. Plan B is not an option for students with majors or co-majors that do not stand alone, such as physical education, social studies, and SMEE.

Retention in the Program

Students accepted into the program must continue to meet all minimum admission requirements cited above, and must demonstrate appropriate progress on all required licensure standards in order to be placed for student teaching and recommended for licensure. The department reserves the right to dismiss candidates from the licensure programs based on: inability to meet program technical standards, violations of the professional behaviors standards, or unsatisfactory progress toward meeting state mandated licensure standards.

Block IV and Student Teaching

In order to take Block IV courses and student teach, a student must have: senior status, unconditional admission to the teacher education program, satisfactory completion of all education courses in Blocks I, II, and III, satisfactory completion of all licensure-related content courses, plus admission to student teaching.

Program Completion

Following completion of all program requirements, a student may apply for Minnesota state licensure after passing all three sections of the Praxis I (PPST) exam, passing the required Praxis II Professional Knowledge Exam, passing the all required Praxis II Subject Matter Exams, and securing a Federal Criminal Background Check.

On the basis of our approved Minnesota licensure program and our accreditation from the National Association of Colleges of Teacher Education (NCATE), many other states offer reciprocal entry licenses for students completing our program requirements. Since all states requirements are unique, any student planning on teaching in another state is strongly advised to check with that state in advance in order to satisfy those unique requirements.

Teacher Licensure in Elementary (K-6) with a Specialty (5-8 or K-8)

Licensure at the elementary/middle level includes a generalist (K-6) component plus an accompanying middle level specialty (5-8 or K-8) in at least one of the following subject areas:

- Middle Level Communication Arts and Literature (5-8)
- Middle Level Mathematics (5-8)
- Middle Level Science (5-8)
- Middle Level Social Studies (5-8)
- Middle Level World Languages and Cultures (K-8)

Major in Elementary Education with a 5-8 Specialty in Communication Arts and Literature*Block I*

EDUC 210 Education's Place in Society (4 credits)

EDUC 211 Field Experience: Introductory (K-12) (0 credit)

EDUC 212 Human Relations and Multicultural Education (4 credits)

Block II - Praxis I Exam (PPST) required for admission to program

EDUC 330 Psychology for Teaching and Learning (4 credits)

EDUC 331 Field Experience: Middle Level (5-8) (0 credit)

EDUC 350 Language Development, Literacy, and Literature I (4 credits)

Block III

EDUC 369 Field Experience: Primary level (K-4) (0 credit)

EDUC 370 Language Development, Literacy, and Literature II (4 credits)

EDUC 371 Teaching Mathematics and Technology (4 credits)

EDUC 372 Teaching Science and Healthy, Active Living (4 credits)

EDUC 373 Teaching Social Studies and Fine Arts (4 credits)

EDUC 374 Seminar in Middle Level Specialty Area (0 credit)

Block IV (Praxis II PLT & Content Area Exams required for licensure)

EDUC 456 Inclusive School Communities (2 credits)

Education

EDUC 460 Student Teaching and Seminar (6 credits)
EDUC 461 The Teacher as Educational Advocate (4 credits)

Plus Middle level Communication Arts & Literature Specialty:

ENGL 111 Critical Reading and Writing I: Fiction and Nonfiction Prose (4 credits)
ENGL 112 Critical Reading and Writing II: Drama and Poetry (4 credits)

Note: Qualified students may substitute ENGL 190 and an additional upper-level literature course for ENGL 111 and 112

Plus eight credits from two of the following categories:

ENGL 211 British Authors I (4 credits) *or* ENGL 212 British Authors II (4 credits)
ENGL 214 American Authors I (4 credits) *or* ENGL 215 American Authors II (4 credits)
ENGL 217 Multicultural Literature (4 credits) *or* ENGL 218 Literature by Women: Critical History (4 credits)
ENGL 220 The Classical Tradition (4 credits) *or* ENGL 221 The Modern Tradition (4 credits)

Plus:

A second major, which may incorporate courses from the middle level concentration requirements

Plus:

Demonstrated competence on all required state standards

Plus allied core curriculum math and science courses to meet state competencies:

MATH 100 Mathematical Sampler (4 credits)
MATH 121 Structures of Elementary Mathematics (4 credits)
Two laboratory sciences (one each chosen from two different fields)

or

IDSC 150 Development of the Natural World (4 credits) *and* one recommended additional lab science

Major in Elementary Education with a 5-8 Specialty in Mathematics

Block I

EDUC 210 Education's Place in Society (4 credits)
EDUC 211 Field Experience: Introductory (K-12) (0 credit)
EDUC 212 Human Relations and Multicultural Education (4 credits)

Block II - Praxis I Exam (PPST) required for admission to program

EDUC 330 Psychology for Teaching and Learning (4 credits)
EDUC 331 Field Experience: Middle Level (5-8) (0 credit)
EDUC 350 Language Development, Literacy, and Literature I (4 credits)

Block III

EDUC 369 Field Experience: Primary Level (K-4) (0 credit)
EDUC 370 Language Development, Literacy, and Literature II (4 credits)
EDUC 371 Teaching Mathematics and Technology (4 credits)
EDUC 372 Teaching Science and Healthy, Active Living (4 credits)
EDUC 373 Teaching Social Studies and Fine Arts (4 credits)
EDUC 374 Seminar in Middle Level Specialty Area (0 credit)

Block IV (Praxis II PLT & Content Area Exams required for licensure)

EDUC 456 Inclusive School Communities (2 credits)
EDUC 460 Student Teaching and Seminar (6 credits)
EDUC 461 The Teacher as Educational Advocate (4 credits)

Plus Middle Level Mathematics Specialty:

MATH 100 Mathematical Sampler (4 credits)
MATH 113 Calculus I (4 credits)
MATH 121 Structures of Elementary Mathematics (4 credits)
MATH 128 Introduction to Discrete Mathematics (4 credits)

Plus:

MATH 259 Elements of Geometry and Statistics (4 credits)

or

MATH 325 Geometry (4 credits) *and* QMCS 220 Statistics I (4 credits)

Plus:

A second major, which may incorporate courses from the middle level concentration requirements

Note: The co-major in Science and Mathematics for Elementary Education (SMEE) is designed to fill this need.

Plus:

Demonstrated competence on all required state standards

Plus allied core curriculum math and science courses to meet state competencies:

Two laboratory sciences (one each chosen from two different fields)

or

IDSC 150 Development of the Natural World (4 credits) *and* one recommended additional lab science

Co-Major in Science and Mathematics for Elementary Education (SMEE)

Werness (QMCS) (director), Chaplin (BIOL), Hartshorn (CHEM), George (ENGR), Lamb (GEOL), McLean (MATH) Shepard (MATH), Tommet (PHYS)

This major provides an integrated background in science and mathematics appropriate for individuals who will teach in the elementary grades. The SMEE major was designed as a co-major along with elementary education and should be considered by students planning to pursue a degree in elementary education who wish to emphasize science and mathematics. Students should contact the program director, the Department of Teacher Education, or members of program faculty for further information on this major. SMEE is only available as a co-major for those students also majoring in elementary education. The SMEE co-major fulfills the Middle Level Specialty (5-8) in Science.

Block I

EDUC 210 Education's Place in Society (4 credits)

EDUC 211 Field Experience: Introductory (K-12) (0 credit)

EDUC 212 Human Relations and Multicultural Education (4 credits)

Block II - Praxis I Exam (PPST) required for admission to program

EDUC 330 Psychology for Teaching and Learning (4 credits)

EDUC 331 Field Experience: Middle level (5-8) (0 credit)

EDUC 350 Language Development, Literacy, and Literature I (4 credits)

Block III

EDUC 369 Field Experience: Primary Level (K-4) (0 credit)

EDUC 370 Language Development, Literacy, and Literature II (4 credits)

EDUC 371 Teaching Mathematics and Technology (4 credits)

EDUC 372 Teaching Science and Healthy, Active Living (4 credits)

EDUC 373 Teaching Social Studies and Fine Arts (4 credits)

EDUC 374 Seminar in Middle Level Specialty Area (0 credit)

Block IV (Praxis II PLT & Content Area Exams required for licensure)

EDUC 456 Inclusive School Communities (2 credits)

EDUC 460 Student Teaching and Seminar (6 credits)

EDUC 461 The Teacher as Educational Advocate (4 credits)

Plus SMEE co-major requirements:

Four credits from the following:

GEOL 111 Introductory Physical Geology (4 credits)

GEOL 113 The Earth's Record of Climate (4 credits)

GEOL 114 The Science of natural Disasters (4 credits)

GEOG 115 Environmental Geology (4 credits)

Plus either:

BIOL 101 General Biology (4 credits)

or the course sequence:

BIOL 201 Diversity and Adaptation (4 credits)

BIOL 202 Genetics, Evolution, and Ecology (4 credits)

BIOL 204 Cellular and Molecular Biology (4 credits)

Plus either:

CHEM 100 Chemistry in Our World (4 credits)

or the course sequence:

CHEM 111 General Chemistry I (4 credits)

CHEM 112 General Chemistry II (4 credits)

Plus either:

PHYS 101 Physics as a Liberal Art I (4 credits)

or the course sequence:

PHYS 109 General Physics I (4 credits)

PHYS 110 General Physics II (4 credits)

or the course sequence

PHYS 111 Introduction to Classical Physics I (4 credits)

PHYS 112 Introduction to Classical Physics II (4 credits)

Plus:

A *specialization sequence* consists of eight or more additional credits in one department, to be approved by the student's SMEE adviser. These courses will build on the "core courses" above and develop specialized knowledge in one of the areas served by the Division of Science and Mathematics.

Education

Plus:

Demonstrated competence on all required state standards.

SMEE 181 Science Seminar (0 credit)

The seminar consists of five one-hour meetings per semester and is offered for SMEE students enrolled in the laboratory science courses. Two semesters of the seminar are required.

SMEE 182 Science Seminar (0 credit)

Same as SMEE 181. This number is used for the second semester of the seminar.

SMEE 359 Integrated Studies in Science and Mathematics (4 credits)

The capstone course in the SMEE interdisciplinary major. A number of currently important science and mathematics-related topics will be studied in depth, and will emphasize the integration of the natural sciences and mathematics. Consideration will be given to the relevance of the topics to modern society and their potential use in the elementary classroom.

Prerequisites: BIOL 101, CHEM 100, GEOL 111 (or 110 or 113 or 114 or 115), MATH 100 and 121, PHYS 101, QMCS 120. (In certain cases, permission of the adviser may allow a substitution.)

Major in Elementary Education with a 5-8 Specialty in Science

Block I

EDUC 210 Education's Place in Society (4 credits)

EDUC 211 Field Experience: Introductory (K-12) (0 credit)

EDUC 212 Human Relations and Multicultural Education (4 credits)

Block II - Praxis I Exam (PPST) required for admission to program

EDUC 330 Psychology for Teaching and Learning (4 credits)

EDUC 331 Field Experience: Middle Level (5-8) (0 credit)

EDUC 350 Language Development, Literacy, and Literature I (4 credits)

Block III

EDUC 369 Field Experience: Primary Level (K-4) (0 credit)

EDUC 370 Language Development, Literacy, and Literature II (4 credits)

EDUC 371 Teaching Mathematics and Technology (4 credits)

EDUC 372 Teaching Science and Healthy, Active Living (4 credits)

EDUC 373 Teaching Social Studies and Fine Arts (4 credits)

EDUC 374 Seminar in Middle Level Specialty Area (0 credit)

Block IV (Praxis II PLT & Content Area Exams required for licensure)

EDUC 456 Inclusive School Communities (2 credits)

EDUC 460 Student Teaching and Seminar (6 credits)

EDUC 461 The Teacher as Educational Advocate (4 credits)

Plus Middle Level General Science Specialty:

GEOL 111 Introductory Physical Geology *or* one of GEOL 110, 113, 114, 115 (4 credits each)

Plus either:

BIOL 101 General Biology (4 credits)

or the course sequence:

BIOL 201 Diversity and Adaptation (4 credits)

BIOL 202 Genetics, Evolution, and Ecology (4 credits)

BIOL 204 Cellular and Molecular Biology (4 credits)

Plus either:

CHEM 100 Chemistry in Our World (4 credits)

or

CHEM 111 General Chemistry I (4 credits) *and* CHEM 112 General Chemistry II (4 credits)

Plus either:

PHYS 101 Physics as a Liberal Art I (4 credits)

or the course sequence:

PHYS 109 General Physics I (4 credits)

PHYS 110 General Physics II (4 credits)

or the course sequence:

PHYS 111 Introduction to Classical Physics I (4 credits)

PHYS 112 Introduction to Classical Physics II (4 credits)

Plus:

A second major, which may incorporate courses from the middle level concentration requirements

Note: The co-major in Science and Mathematics for Elementary Education (SMEE) is designed to fill this need.

Plus:

Demonstrated competence on all required state standards

Plus allied core curriculum math courses to meet state competencies:

MATH 100 Mathematical Sampler (4 credits)

MATH 121 Structures of Elementary Mathematics (4 credits)

Major in Elementary Education with a 5-8 Specialty in Social Studies

Block I

EDUC 210 Education's Place in Society (4 credits)

EDUC 211 Field Experience: Introductory (K-12) (0 credit)

EDUC 212 Human Relations and Multicultural Education (4 credits)

Block II - Praxis I Exam (PPST) required for admission to program

EDUC 330 Psychology for Teaching and Learning (4 credits)

EDUC 331 Field Experience: Middle Level (5-8) (0 credit)

EDUC 350 Language Development, Literacy, and Literature I (4 credits)

Block III

EDUC 369 Field Experience: Primary Level (K-4) (4 credits)

EDUC 370 Language Development, Literacy, and Literature II (4 credits)

EDUC 371 Teaching Mathematics and Technology (4 credits)

EDUC 372 Teaching Science and Healthy, Active Living (4 credits)

EDUC 373 Teaching Social Studies and Fine Arts (4 credits)

EDUC 374 Seminar in Middle Level Specialty Area (0 credit)

Block IV (Praxis II PLT & Content Area Exams required for licensure)

EDUC 456 Inclusive School Communities (2 credits)

EDUC 460 Student Teaching and Seminar (6 credits)

EDUC 461 The Teacher as Educational Advocate (4 credits)

Plus Middle Level Social Studies Specialty:

ECON 211 Current Economic Issues (4 credits)

GEOG 113 World Geography (4 credits)

HIST 113 Early America in Global Perspective (4 credits)

POLS 101 American Government and Politics (4 credits)

Plus:

A second major, which may incorporate courses from the middle level concentration requirements

Plus:

Demonstrated competence on all required state standards

Plus allied core curriculum math and science courses to meet state competencies:

MATH 100 Mathematical Sampler (4 credits)

MATH 121 Structures of Elementary Mathematics (4 credits)

Two laboratory sciences (one each chosen from two different fields)

or

IDSC 150 Development of the Natural World (4 credits) *and* one recommended additional lab science

Major in Elementary Education with a K-8 Specialty in World Languages and Cultures

Block I

EDUC 210 Education's Place in Society (4 credits)

EDUC 211 Field Experience: Introductory (K-12) (0 credit)

EDUC 212 Human Relations and Multicultural Education (4 credits)

Block II - Praxis I Exam (PPST) required for admission to program

EDUC 330 Psychology for Teaching and Learning (4 credits)

EDUC 331 Field Experience: Middle Level (5-8) (0 credit)

EDUC 350 Language Development, Literacy, and Literature I (4 credits)

Block III

EDUC 369 Field Experience: Primary Level (K-4) (0 credit)

EDUC 370 Language Development, Literacy, and Literature II (4 credits)

EDUC 371 Teaching Mathematics and Technology (4 credits)

EDUC 372 Teaching Science and Healthy, Active Living (4 credits)

EDUC 373 Teaching Social Studies and Fine Arts (4 credits)

EDUC 374 Seminar in Middle Level Specialty Area (0 credit)

Block IV (Praxis II PLT & Content Area Exams required for licensure)

Language Oral Proficiency Exam required for Student Teaching

EDUC 456 Inclusive School Communities (2 credits)

EDUC 460 Student Teaching and Seminar (6 credits)

EDUC 461 The Teacher as Educational Advocate (4 credits)

Education

Plus Middle Level World Languages and Cultures Specialty:

Successful completion of a minor or equivalent in one or more of the following languages:

- French
- German
- Spanish

Plus:

A second major, which may incorporate courses from the middle level concentration requirements

Plus:

Demonstrated competence on all required state standards

Plus allied core curriculum math and science courses to meet state competencies:

MATH 100 Mathematical Sampler (4 credits)

MATH 121 Structures of Elementary Mathematics (4 credits)

Two laboratory sciences (one each chosen from two different fields)

or

IDSC 150 Development of the Natural World (4 credits) *and* one recommended additional lab science

Teacher Licensure in Secondary/Middle Level Education

Programs are designed to provide professional preparation for teaching in middle and secondary settings. Licensure is available in the following areas:

- Chemistry (9-12)
- Communication Arts and Literature (5-12)
- Dance and Theater Arts with a Theater Specialization (K-12)
- Earth and Space Science (9-12)
- Health (5-12)
- Life Science (9-12)
- Mathematics (5-12)
- Music Education
 - Instrumental and Classroom Music (K-12)
 - Vocal and Classroom Music (K-12)
- Physical Education (K-12)
- Physics (9-12)
- Science (5-8)
- Social Studies (5-12)
- World Languages and Cultures (K-12)
 - French
 - German
 - Spanish

Communication Arts and Literature (5-12)

Co-major in Communication Arts and Literature and a Co-major in Secondary Education

Note: A Co-major cannot be a stand-alone major. Students seeking licensure in this area who also want to complete an English major and a Communication minor should consult the English Department section of the catalog and follow the Major in English with a Teacher Education Emphasis.

Block I

EDUC 210 Education's Place in Society (4 credits)

EDUC 211 Field Experience: Introductory (K-12) (0 credit)

EDUC 212 Human Relations and Multicultural Education

Block II - Praxis I Exam (PPST) required for admission to program

EDUC 330 Psychology for Teaching and Learning (4 credits)

EDUC 331 Field Experience: Middle Level (5-8) (0 credit)

EDUC 345 Adolescent Literature (2 credits)

EDUC 355 Reading for the 5-12 Teacher (4 credits)

Block III

EDUC 381 Curriculum and Methods for Specific Discipline (5-8) (2 credits)

EDUC 382 Curriculum and Methods for Specific Discipline (9-12) (2 credits)

EDUC 383 Field Experience: Secondary (9-12) (0 credit)

Block IV (Praxis II PLT & Content Area Exams required for licensure)

EDUC 456 Inclusive School Communities (2 credits)

EDUC 460 Student Teaching and Seminar (6 credits)

EDUC 461 The Teacher as Educational Advocate (4 credits)

Plus:

COMM 100 Public Speaking (4 credits)

COMM 120 Communication Theories and Methods (4 credits)

COMM 140 Rhetorical Criticism (4 credits)
 COMM 160 Electronic Media Production (4 credits)
 COMM 217 Survey of Communication Disorders (4 credits)
 ENGL 111 Critical Reading and Writing I: Fiction and Nonfiction Prose (4 credits)
 ENGL 112 Critical Reading and Writing II: Drama and Poetry (4 credits)

Note: Qualified students may substitute ENGL 190 and an additional upper-level literature course for ENGL 111 and 112

ENGL 300 Theory and Practice of Writing (4 credits)
 ENGL 305 Linguistics: English Language (4 credits)
 ENGL 361 Shakespeare and the Early Modern Period (4 credits)
 ENGL 380 Issues in English Studies (4 credits)

Plus four credits from each of the following areas:

ENGL 211 British Authors I (4 credits) *or* ENGL 212 British Authors II (4 credits)
 ENGL 214 American Authors I (4 credits) *or* ENGL 215 American Authors II (4 credits)
 ENGL 220 The Classical Tradition (4 credits) *or* ENGL 221 The Modern Tradition (4 credits)
 ENGL 217 Multicultural Literature (4 credits) *or* ENGL 218 Literature by Women: Critical History (4 credits)

Plus:

Demonstrated competence on all required state standards

To complete a major in Communication, the following courses are required:

Twelve additional upper division COMM credits
 COMM 480 Capstone Course in Communication (4 credits)

Chemistry (9-12)

Co-major in Science – Chemistry and a Co-major in Secondary Education

Note: A Co-major cannot be a stand-alone major.

Note General Science 5-8: Students have the option of adding the middle school General Science 5-8 licensure (See Education: General Science 5-8)

Block I

EDUC 210 Education's Place in Society (4 credits)
 EDUC 211 Field Experience: Introductory (K-12) (0 credit)
 EDUC 212 Human Relations and Multicultural Education (4 credits)

Block II - Praxis I Exam (PPST) required for admission to program

EDUC 330 Psychology for Teaching and Learning (4 credits)
 EDUC 331 Field Experience: Middle Level (5-8) (0 credit)
 EDUC 355 Reading for the 5-12 Teacher (4 credits)

Block III

EDUC 381 Curriculum and Methods for Specific Discipline (5-8) (2 credits)
 EDUC 382 Curriculum and Methods for Specific Discipline (9-12) (2 credits)
 EDUC 383 Field Experience: Secondary (9-12) (0 credit)

Block IV (Praxis II PLT & Content Area Exams required for licensure)

EDUC 456 Inclusive School Communities (2 credits)
 EDUC 460 Student Teaching and Seminar (6 credits)
 EDUC 461 The Teacher as Educational Advocate (4 credits)

Plus:

CHEM 111 General Chemistry I (4 credits) *and* CHEM 112 General Chemistry II (4 credits)
or
 CHEM 115 Accelerated General Chemistry (4 credits)

Plus:

CHEM 201 Organic Chemistry I (4 credits)
 CHEM 202 Organic Chemistry II (4 credits)
 CHEM 300 Quantitative Analysis (4 credits)
 CHEM 331 Chemical Thermodynamics and Reaction Dynamics (4 credits)
 CHEM 391 Research (1 credit)
 CHEM 392 Research (1 credit)
 CHEM 481 Seminar (1 credit)
 CHEM 484 Seminar (1 credit)
 MATH 113 Calculus I (4 credits)
 MATH 114 Calculus II (4 credits)
 PHYS 111 Introduction to Classical Physics I (4 credits)
 PHYS 112 Introduction to Classical Physics II (4 credits)

Plus:

Demonstrated competence on all required state standards

Education

To complete a major in Chemistry (B.A.), the following courses are required:

CHEM 320 Instrumental Analysis (4 credits)
CHEM 482 Seminar (0 credit)
CHEM 483 Seminar (0 credit)

Plus:

Six credits from the list of elective chemistry courses found under Major in Chemistry (B.A.) (see Chemistry)

Earth and Space Science (9-12)

Co-Major in Science – Earth and Space Science and a Co-Major in Secondary Education

Note: A Co-major cannot be a stand-alone major.

Note General Science 5-8: Students have the option of adding the middle school General Science 5-8 licensure (See Education: General Science 5-8)

Block I

EDUC 210 Education's Place in Society (4 credits)
EDUC 211 Field Experience: Introductory (K-12) (0 credit)
EDUC 212 Human Relations and Multicultural Education (4 credits)

Block II - Praxis I Exam (PPST) required for admission to program

EDUC 330 Psychology for Teaching and Learning (4 credits)
EDUC 331 Field Experience: Middle Level (5-8) (0 credit)
EDUC 355 Reading for the 5-12 Teacher (4 credits)

Block III

EDUC 381 Curriculum and Methods for Specific Discipline (5-8) (2 credits)
EDUC 382 Curriculum and Methods for Specific Discipline (9-12) (2 credits)
EDUC 383 Field Experience: Secondary (9-12) (0 credit)

Block IV (Praxis II PLT & Content Area Exams required for licensure)

EDUC 456 Inclusive School Communities (2 credits)
EDUC 460 Student Teaching and Seminar (6 credits)
EDUC 461 The Teacher as Educational Advocate (4 credits)

Plus four credits from the following:

GEOL 111 Introductory Physical Geology (4 credits)
GEOL 113 The Earth's Record of Climate (4 credits)
GEOL 114 The Science of Natural Disasters (4 credits)
GEOL 115 Environmental Geology (4 credits)

Plus:

BIOL 201 Diversity and Adaptation (4 credits)
CHEM 111 General Chemistry I (4 credits)
CHEM 112 General Chemistry II (4 credits)
GEOL 211 Earth Materials (4 credits)
GEOL 252 Earth Surface Processes and Geomorphology (4 credits)
GEOL 260 Regional Geology and Field Methods (4 credits)
GEOL 320 Sedimentology and Stratigraphy (4 credits)
GEOL 340 Fundamentals of the Lithosphere I (Petrology) (4 credits)
GEOL 360 Fundamentals of the Lithosphere II (Structural Geology) (4 credits)
GEOL 430 Advanced Earth History (4 credits)
PHYS 101 Physics as a Liberal Art (4 credits)
PHYS 104 Astronomy (4 credits)

Plus either:

MATH 113 Calculus I (4 credits)

or

MATH 108 Calculus with Review I (4 credits) and MATH 109 Calculus with Review II (4 credits)

Plus:

Demonstrated competence on all required state standards

To complete a major in Geology, the following is required:

Four additional GEOL credits numbered 200 or above

General Science (5-8)

Students have the option of adding the Middle School General Science Licensure to 9-12 Chemistry, Earth and Space Science, Life Science, or Physics by taking the following courses:

BIOL 101 General Biology (4 credits)

or the course sequence:

BIOL 201 Diversity and Adaptation (4 credits)
BIOL 202 Genetics, Evolution, and Ecology (4 credits)
BIOL 204 Cellular and Molecular Biology (4 credits)

Plus either:

PHYS 101 Physics as a Liberal Art I (4 credits)

or the course sequence:

PHYS 109 General Physics I (4 credits)

PHYS 110 General Physics II (4 credits)

or the course sequence:

PHYS 111 Introduction to Classical Physics I (4 credits)

PHYS 112 Introduction to Classical Physics II (4 credits)

Plus

GEOL 111 Introductory Physical Geology *or one of* GEOL 110, 113, 114, 115 (4 credits each)

Plus

PHYS 104 Astronomy (4 credits)

Health Education (5-12)

Major in Health Education 5-12

Block I

EDUC 210 Education's Place in Society (4 credits)

EDUC 211 Field Experience: Introductory (K-12) (0 credit)

EDUC 212 Human Relations and Multicultural Education (4 credits)

Block II - Praxis I Exam (PPST) required for admission to program

EDUC 330 Psychology for Teaching and Learning (4 credits)

EDUC 331 Field Experience: Middle Level (5-8) (0 credit)

Block III

EDUC 355 Reading for the 5-12 Teacher (4 credits)

EDUC 369 Field Experience: Primary Level (K-4) (0 credit)

HLTH 440¹ Health Education : 5-12 Curriculum Assessment and Administration (4 credits)

HLTH 450¹ Health Education: 5-12 Methods, Resources and Partnerships (4 credits)

¹Note: These courses substitute for EDUC 381 and 382

Block IV (Praxis II PLT & Content Area Exams required for licensure)

EDUC 456 Inclusive School Communities (2 credits)

EDUC 460 Student Teaching and Seminar (6 credits)

EDUC 461 The Teacher as Educational Advocate (4 credits)

Plus:

HLTH 345 Nutrition for Health and Fitness (4 credits)

HLTH 350 Personal Health and Wellness (4 credits)

HLTH 353 Consumer, Community and Environmental Health (4 credits)

HLTH 375 Lifelong Stress Management (2 credits)

HLTH 400 Epidemiology (4 credits)

HLTH 462 Human Sexuality Education (4 credits)

HLTH 464 Critical Issues in Health Education (4 credits)

American Red Cross Certification in First Aid/CPR/AED

Plus four credits from the following:

BIOL 101 General Biology (4 credits)

BIOL 105 Human Biology (4 credits)

Plus four credits from the following:

BIOL 251C Human Anatomy and Physiology I (CSC) (4 credits)

PHED 410 Human Anatomy and Physiology (4 credits)

Plus four credits from the following:

CHEM 100 Chemistry in our World (4 credits)

CHEM 101 Environmental Chemistry (4 credits)

CHEM 111 General Chemistry (4 credits)

Plus four credits from the following:

COMM 100 Public Speaking (4 credits)

COMM 105 Communication in the Workplace (4 credits)

Plus four credits from the following:

PSYC 111 General Psychology (4 credits)

SOCI 100 Introduction to Sociology (4 credits)

Recommended:

PSYC 200 Psychology of Infancy and Childhood (4 credits)

PSYC 203 Psychology of Adolescence (4 credits)

Education

Plus:

Demonstrated competence on all required state standards

Life Science (9-12)

Co-Major in Science – Life Science with Co-Major in Secondary Education

Note: A Co-major cannot be a stand-alone major.

Note General Science 5-8: Students have the option of adding the middle school General Science 5-8 licensure (See Education: General Science 5-8)

Block I

EDUC 210 Education's Place in Society (4 credits)

EDUC 211 Field Experience: Introductory (K-12) (0 credit)

EDUC 212 Human Relations and Multicultural Education (4 credits)

Block II - Praxis I Exam (PPST) required for admission to program

EDUC 330 Psychology for Teaching and Learning (4 credits)

EDUC 331 Field Experience: Middle Level (5-8) (0 credit)

EDUC 355 Reading for the 5-12 Teacher (4 credits)

Block III

EDUC 381 Curriculum and Methods for Specific Discipline (5-8) (2 credits)

EDUC 382 Curriculum and Methods for Specific Discipline (9-12) (2 credits)

EDUC 383 Field Experience: Secondary (9-12) (0 credit)

Block IV (Praxis II PLT & Content Area Exams required for licensure)

EDUC 456 Inclusive School Communities (2 credits)

EDUC 460 Student Teaching and Seminar (6 credits)

EDUC 461 The Teacher as Educational Advocate (4 credits)

Plus:

BIOL 201 Diversity and Adaptation (4 credits)

BIOL 202 Genetics, Evolution, and Ecology (4 credits)

BIOL 204 Cellular and Molecular Biology (4 credits)

BIOL 206 Global Ecology (2 credits)

CHEM 111 General Chemistry I (4 credits)

CHEM 112 General Chemistry II (4 credits)

CHEM 201 Organic Chemistry I (4 credits)

GEOL 111 Introductory Physical Geology *or one of* GEOL 110, 113, 114, 115 (4 credits each)

PHYS 104 Astronomy (4 credits)

Plus:

Sixteen additional BIOL credits in courses numbered 200 or above, chosen in consultation with an adviser

Plus:

Demonstrated competence on all required state standards

To complete a major in Biology, the following courses are required:

Six additional BIOL credits numbered 200 or above

Plus four credits from the following:

MATH 303 Statistics for the Applied Sciences (4 credits)

QMCS 220 Statistics I (4 credits)

Plus at least two of the following, selected in consultation with the departmental adviser:

CHEM 202 Organic Chemistry II (4 credits)

MATH 109 Calculus with Review II (4 credits) *or* MATH 113 Calculus I (4 credits)

PHYS 109 General Physics I (4 credits) *or* PHYS 111 Introduction to Classical Physics I (4 credits)

Mathematics 5-12

Major in Mathematics and a Co-major in Secondary Education

Note: A Co-major cannot be a stand-alone major.

Block I

EDUC 210 Education's Place in Society (4 credits)

EDUC 211 Field Experience: Introductory (K-12) (0 credit)

EDUC 212 Human Relations and Multicultural Education (4 credits)

Block II - Praxis I Exam (PPST) required for admission to program

EDUC 330 Psychology for Teaching and Learning (4 credits)

EDUC 331 Field Experience: Middle Level (5-8) (0 credit)

EDUC 355 Reading for the 5-12 Teacher (4 credits)

Block III

EDUC 381 Curriculum and Methods for Specific Discipline (5-8) (2 credits)

EDUC 382 Curriculum and Methods for Specific Discipline (9-12) (2 credits)

EDUC 383 Field Experience: Secondary (9-12) (0 credit)

Block IV (Praxis II PLT & Content Area Exams required for licensure)

EDUC 456 Inclusive School Communities (2 credits)
 EDUC 460 Student Teaching and Seminar (6 credits)
 EDUC 461 The Teacher as Educational Advocate (4 credits)

Plus:

MATH 113 Calculus I (or 108-109) (4 credits)
 MATH 114 Calculus II (4 credits)
 MATH 200 Multi-Variable Calculus (4 credits)
 MATH 210 Linear Algebra and Differential Equations (4 credits)
 MATH 301 Abstract Algebra I (4 credits)
 MATH 317 Real Analysis (4 credits)
 MATH 325 Geometry (4 credits)
 MATH 450 Advanced Mathematics: Exploration and Exposition (4 credits)
 QMCS 230 Software Design Using the JAVA Language (4 credits)

Plus at least four credits from the following:

MATH 302 Abstract Algebra II (4 credits)
 MATH 385 Mathematical Methods of Numerical Analysis (4 credits)
 MATH 400 Dynamical Systems and Chaos (4 credits)
 MATH 419 Complex Variables (4 credits)
 MATH 420 Topology (4 credits)

Plus either:

MATH 303 Statistics for the Applied Sciences (4 credits) *and* one additional MATH course numbered 300 or above
or
 MATH 313 Probability (4 credits) *and* MATH 314 Mathematical Statistics (4 credits)

Plus:

Demonstrated competence on all required state standards

Music Education**Music Education: Instrumental and Classroom Music K-12**

Bachelor of Music in Music Education

Block I

EDUC 210 Education's Place in Society (4 credits)
 EDUC 211 Field Experience: Introductory (K-12) (0 credit)
 EDUC 212 Human Relations and Multicultural Education (4 credits)

Block II - Praxis I Exam (PPST) required for admission to program

EDUC 330 Psychology for Teaching and Learning (4 credits)
 EDUC 331 Field Experience: Middle Level (5-8) (0 credit)

Block III

EDUC 110 Introduction to Music Education I (0 credit)
 EDUC 112 Introduction to Music Education II (0 credit)
 EDUC 207 Music Education Methods I (4 credits)
 EDUC 307 Music Education Methods II (4 credits)
 EDUC 314 Music Education Methods III (4 credits)
 EDUC 418 Music Education Methods IV (4 credits)

Note: These courses substitute for EDUC 381 and 382

EDUC 369 Field Experience: Primary Level (K-4) (0 credit)
Block IV (Praxis II PLT & Content Area Exams required for licensure)
 EDUC 456 Inclusive School Communities (2 credits)

See note below about completion of licensure in Plan B

EDUC 460 Student Teaching and Seminar (6 credits)
 EDUC 461 The Teacher as Educational Advocate (4 credits)

Plus the following Instrumental Concentrations:

EDUC 218 Teaching Techniques for the Brass Family (1 credit)
 EDUC 220 Teaching Techniques for the Percussion family (1 credit)
 EDUC 221 Teaching Techniques for the Woodwind Family (1 credit)
 EDUC 324 Teaching Techniques for the String Family (1 credit)
 EDUC 328 Vocal Pedagogy for the Music Educator (1 credit)
 MUSC 354 Advanced Conducting and Materials: Instrumental Concentration (2 credits)

Plus:

MUSC 001 Student Convocation Hour (0 credits) (6 semesters)
 MUSC 113 Music Theory I (4 credits)

Education

MUSC 114 Music Theory II (4 credits)
MUSC 131 Eurhythmics I (1 credit)
MUSC 132 Eurhythmics II (1 credit)
MUSC 133 Music of the United States: Aural and Written Traditions (4 credits)
MUSC 140 Music Media (2 credits)
MUSC 213 Music Theory III (4 credits)
MUSC 214 Music Theory IV (4 credits)
MUSC 231 Introduction to Conducting I (1 credit)
MUSC 232 Introduction to Conducting II (1 credit)
MUSC 233 Music of the World: Aural and Written Traditions (4 credits)
MUSC 341 Theory Elective: Musicianship Pedagogy for Music Educators (2 credits)
MUSC 411 History and Literature of Music I (4 credits)
MUSC 412 History and Literature of Music II (4 credits)
MUSN 1xx Ensemble (6 semesters) (0 credits each semester)
MUSP 102 or 103 Skills for Piano Proficiency (0 credit)
MUSP 2xx Performance studies (6 semesters) (2 credits each semester)
MUSR 200 Piano Proficiency (0 credit)
MUSR 270 Level I Recital (0 credit)
MUSR 350 Level II Recital (0 credit)
Guidelines for choosing an ensemble:
Students must spend 6 semesters in a large instrumental ensemble.
Instrumental majors must spend at least 4 semesters in MUSN 185 or MUSN 186.

Allied Requirements:

PHYS 105 Musical Acoustics (4 credit hours)

Music Education: Vocal and Classroom Music K-12

Bachelor of Music in Music Education

Block I

EDUC 210 Education's Place in Society (4 credits)
EDUC 211 Field Experience: Introductory (K-12) (0 credit)
EDUC 212 Human Relations and Multicultural Education

Block II - Praxis I Exam (PPST) required for admission to program

EDUC 330 Psychology for Teaching and Learning (4 credits)
EDUC 331 Field Experience: Middle Level (5-8) (0 credit)

Block III

EDUC 110 Introduction to Music Education I (0 credit)
EDUC 112 Introduction to Music Education II (0 credit)
EDUC 207 Music Education Methods I (4 credits)
EDUC 307 Music Education Methods II (4 credits)
EDUC 314 Music Education Methods III (4 credits)
EDUC 418 Music Education Methods IV (4 credits)

Note: These courses substitute for EDUC 381 and 382

EDUC 369 Field Experience: Primary Level (K-4) (0 credit)

Block IV (Praxis II PLT & Content Area Exams required for licensure)

EDUC 456 Inclusive School Communities (2 credits)
EDUC 460 Student Teaching and Seminar (6 credits)
EDUC 461 The Teacher as Educational Advocate

Plus the following for Vocal Concentrations:

EDUC 328 Vocal Pedagogy for the Music Educator (1 credit)
EDUC 334 Vocal Diction (1 credit)
EDUC 424 Instrumental Techniques for Vocal Music Educators (1 credit)
MUSC 355 Advanced Conducting and Materials: Vocal Concentration (2 credits)

Plus:

MUSC 001 Student Convocation Hour (0 credits) (6 semesters)
MUSC 113 Music Theory I (4 credits)
MUSC 114 Music Theory II (4 credits)
MUSC 131 Eurhythmics I (1 credit)
MUSC 132 Eurhythmics II (1 credit)
MUSC 133 Music of the United States: Aural and Written Traditions (4 credits)
MUSC 140 Music Media (2 credits)
MUSC 213 Music Theory III (4 credits)
MUSC 214 Music Theory IV (4 credits)

MUSC 231 Introduction to Conducting I (1 credit)
 MUSC 232 Introduction to Conducting II (1 credit)
 MUSC 233 Music of the World: Aural and Written Traditions (4 credits)
 MUSC 341 Theory Elective: Musicianship Pedagogy for Music Educators (2 credits)
 MUSC 411 History and Literature of Music I (4 credits)
 MUSC 412 History and Literature of Music II (4 credits)
 MUSP 2xx Performance studies (6 semesters) (2 credits each semester)
 MUSR 270 Level I Recital (0 credits)
 MUSR 350 Level II Recital (0 credits)
 MUSP 102 or 103 Skills for piano Proficiency (0 credits)
 MUSR 200 Piano Proficiency (0 credits)
 MUSN 1xx Ensemble (6 semesters) (0 credits each semester)
 Guidelines for choosing an ensemble:
 Students must spend 6 semesters in a large choral ensemble.
 Voice majors must spend at least 4 semesters in MUSN 142 or MUSN 160.

Allied Requirements:

PHYS 105 Musical Acoustics (4 credit hours)

Physical Education (K-12)

Major in Physical Education

Block I

EDUC 210 Education's Place in Society (4 credits)
 EDUC 211 Field Experience: Introductory (K-12) (0 credit)
 EDUC 212 Human Relations and Multicultural Education (4 credits)

Block II - Praxis I Exam (PPST) required for admission to program

EDUC 330 Psychology for Teaching and Learning
 EDUC 331 Field Experience: Middle Level (5-8) (0 credit)

Block III

EDUC 355 Reading for the 5-12 Teacher
 EDUC 369 Field Experience: Primary Level (K-4) (0 credit)
 PHED 204¹ Physical Education Methods for Elementary School (4 credits)
 PHED 304¹ Physical Education Methods for Middle School (4 credits)
 PHED 404¹ Physical Education Methods for Secondary School (4 credits)
 PHED 405^{1,2} Physical Education Methods for Teaching Aquatics/First Aid/CPR/AED (4 credits)

¹Note: These courses substitute for EDUC 381 and 382

²Option to waive PHED 405 for those students who successfully complete American Red Cross Certifications in Water-Safety-Instruction, and First Aid/CPR/AED

Block IV (Praxis II PLT & Content Area Exams required for licensure)

EDUC 456 Inclusive School Communities (2 credits)
 EDUC 460 Student Teaching and Seminar (6 credits)
 EDUC 461 The Teacher as Educational Advocate (4 credits)

Plus:

HLTH 350 Personal Health and Wellness (4 credits)
 PHED 104 Physical Education Curriculum, Instruction, and Assessment (4 credits)
 PHED 215 Rhythms and Dance (2 credits)
 PHED 311 Motor Development (2 credits)
 PHED 351 Teaching of the Special Needs Student (2 credits)
 PHED 410 Human Anatomy and Physiology (4 credits)
 PHED 420 Kinesiology (4 credits)
 PHED 431 Exercise Physiology (2 credits)
 PSYC 111 General Psychology (4 credits)

Plus four credits from the following:

BIOL 101 General Biology (4 credits)
 BIOL 105 Human Biology (4 credits)

Plus:

Demonstrated competence on all required state standards
 Attendance at one professional conference

Education

Physics (9-12)

Co-major in Science – Physics plus a Co-Major in Secondary Education

Note: A Co-major cannot be a stand-alone major.

Note General Science 5-8: Students have the option of adding the middle school General Science 5-8 licensure (See Education: General Science 5-8)

Block I

EDUC 210 Education's Place in Society (4 credits)

EDUC 211 Field Experience: Introductory (K-12) (0 credit)

EDUC 212 Human Relations and Multicultural Education (4 credits)

Block II - Praxis I Exam (PPST) required for admission to program

EDUC 330 Psychology for Teaching and Learning (4 credits)

EDUC 331 Field Experience: Middle Level (5-8) (0 credit)

EDUC 355 Reading for the 5-12 Teacher (4 credits)

Block III

EDUC 381 Curriculum and Methods for Specific Discipline (5-8) (2 credits)

EDUC 382 Curriculum and Methods for Specific Discipline (9-12) (2 credits)

EDUC 383 Field Experience: Secondary (9-12) (0 credit)

Block IV (Praxis II PLT & Content Area Exams required for licensure)

EDUC 456 Inclusive School Communities (2 credits)

EDUC 460 Student Teaching and Seminar (6 credits)

EDUC 461 The Teacher as Educational Advocate (4 credits)

Plus:

CHEM 111 General Chemistry I (4 credits)

CHEM 112 General Chemistry II (4 credits)

ENGR 350 Introduction to Electronics (4 credits)

GEO 111 Introductory Physical Geology *or one of* GEO 110, 113, 114, 115 (4 credits each)

MATH 113 Calculus I (4 credits)

MATH 114 Calculus II (4 credits)

MATH 200 Multivariable Calculus (4 credits)

MATH 210 Linear Algebra and Differential Equations (4 credits)

PHYS 104 Astronomy (4 credits)

PHYS 111 Introduction to Classical Physics I (4 credits)

PHYS 112 Introduction to Classical Physics II (4 credits)

PHYS 225 Introduction to Modern Physics I (4 credits)

PHYS 226 Introduction to Modern Physics II (4 credits)

PHYS 300 Seminar I (1 credit)

PHYS 301 Seminar II (1 credit)

PHYS 323 Methods of Experimental Physics (4 credits)

QMCS 230 Software Design Using the Java Language (4 credits)

Plus:

Four additional credits in PHYS courses other than 101

Plus either:

BIOL 101 General Biology (4 credits)

or the three-course sequence

BIOL 201 Diversity and Adaptation (4 credits)

BIOL 202 Genetics, Evolution, and Ecology (4 credits)

BIOL 204 Cellular and Molecular Biology (4 credits)

Plus:

Demonstrated competence on all required state standards

To complete a major in Physics (B.A.), two of the following courses are required:

PHYS 105 Musical Acoustics (4 credits)

PHYS 331 Theoretical Mechanics (4 credits)

PHYS 341 Electricity and Magnetism (4 credits)

PHYS 342 Electromagnetic Waves (4 credits)

PHYS 347 Optics (4 credits)

PHYS 410 Statistical Mechanics and Thermodynamics (4 credits)

PHYS 431 Quantum Mechanics (4 credits)

PHYS 494 Research (4 credits)

PHYS 498 Individual Study (4 credits)

Social Studies (5-12)

Co-Major in Social Studies with a Co-Major in Secondary Education

Note: A Co-major cannot be a stand-alone major.

Mega (HIST), program coordinator

Block I

EDUC 210 Education's Place in Society (4 credits)

EDUC 211 Field Experience: Introductory (K-12) (0 credit)

EDUC 212 Human Relations and Multicultural Education (4 credits)

Block II - Praxis I Exam (PPST) required for admission to program

EDUC 330 Psychology for Teaching and Learning (4 credits)

EDUC 331 Field Experience: Middle Level (5-8) (0 credit)

EDUC 355 Reading for the 5-12 Teacher (4 credits)

Block III

EDUC 381 Curriculum and Methods for Specific Discipline (5-8) (2 credits)

EDUC 382 Curriculum and Methods for Specific Discipline (9-12) (2 credits)

EDUC 383 Field Experience: Secondary (9-12) (0 credit)

Block IV (Praxis II PLT & Content Area Exams required for licensure)

EDUC 456 Inclusive School Communities (2 credits)

EDUC 460 Student Teaching and Seminar (6 credits)

EDUC 461 The Teacher as Educational Advocate (4 credits)

Plus:

ENVR 151 Humans and the Environment (4 credits)

POLS 105 Politics and Government in Comparative Perspective (4 credits)

PSYC 111 General Psychology (4 credits)

SOCI 100 Introduction to Sociology (4 credits)

SOCI 301 Cultural Anthropology (4 credits)

Plus four credits from the following:

ECON 101 The American Economy (4 credits)

ECON 211 Current Economic Issues (4 credits)

ECON 251 Principles of Macroeconomics (4 credits)

Plus four credits from the following:

HIST 111 Origins of the Modern World to 1550 (4 credits)

HIST 112 The Modern World Since 1550 (4 credits)

Plus four credits from the following:

HIST 113 Early America in Global Perspective (4 credits)

HIST 114 The Modern U.S. in Global Perspective (4 credits)

Plus four credits from the following:

HIST 210 Modern Latin America, 1800 to the Present (4 credits)

HIST 220 Introduction to Japanese History and Culture (4 credits)

HIST 340 Foundations of Chinese Civilization (4 credits)

HIST 341 The History of Modern China (4 credits)

HIST 345 Family and Women in Chinese History (4 credits)

Plus four credits from the following:

GEOG 111 Human Geography (4 credits)

GEOG 113 World Regional Geography (4 credits)

Plus:

Twenty-four additional credits in courses in one of the social science disciplines (economics, geography, history, political science, psychology, or sociology). Choice of these courses are subject to the approval of the department involved.

Plus:

Demonstrated competence on all required state standards

To complete a major in one of the Social Science disciplines, contact the chair of the department.

Theater Arts and Dance (K-12)

Major in Theater and a Co-Major in Secondary Education

Note: A Co-major cannot be a stand-alone major.

Block I

EDUC 210 Education's Place in Society (4 credits)

EDUC 211 Field Experience: Introductory (K-12) (0 credit)

EDUC 212 Human Relations and Multicultural Education (4 credits)

Education

Block II - Praxis I Exam (PPST) required for admission to program

EDUC 330 Psychology for Teaching and Learning (4 credits)

EDUC 331 Field Experience: Middle Level (5-8) (0 credit)

Block III

EDUC 355 Reading for the 5-12 Teacher (4 credits)

EDUC 383 Field Experience: Secondary (9-12) (4 credits)

THTR 375 Methods of Teaching Theater and Dance (4 credits)

Note: This course substitutes for EDUC 381 and 382

Block IV (Praxis II PLT & Content Area Exams required for licensure)

EDUC 456 Inclusive School Communities (2 credits)

EDUC 460 Student Teaching and Seminar (6 credits)

EDUC 461 The Teacher as Educational Advocate (4 credits)

Plus:

THTR 105 Stagecraft (4 credits)

THTR 214 Beginning Acting (4 credits)

THTR 215 Beginning Directing (4 credits)

THTR 221 History of Theater I: Classical through 17th Century (4 credits)

THTR 222 History of Theater II: 18th Century through Contemporary (4 credits)

THTR 223 History of Theater III: American (4 credits)

THTR 231 Dance for Musical Theater (4 credits)

THTR 253 Creative Dramatics (4 credits)

THTR 412 Drama: Theory and Criticism (4 credits)

Plus:

Participation in at least two mainstage productions

World Language and Cultures Education (K-12)

Students wishing to be licensed grades K-12 in World Language and Cultures in the state of Minnesota must demonstrate advanced level speaking proficiency in English and the target language as defined in the American Council on the Teaching of Foreign Languages (ACTFL) Proficiency Guidelines.

Major in French, German, or Spanish with a Co-Major in Secondary Education

Note: A Co-major cannot be a stand-alone major.

Block I

EDUC 210 Education's Place in Society (4 credits)

EDUC 211 Field Experience: Introductory (K-12) (0 credit)

EDUC 212 Human Relations and Multicultural Education (4 credits)

Block II - Praxis I Exam (PPST) required for admission to program

EDUC 330 Psychology for Teaching and Learning (4 credits)

EDUC 331 Field Experience: Middle Level (5-8) (0 credit)

EDUC 355 Reading for the 5-12 Teacher (4 credits)

Block III

EDUC 369 Field Experience: Primary Level (K-4) (0 credit)

EDUC 380 Curriculum and Methods for Specific Discipline (K-12)

Block IV (Praxis II PLT & Content Area Exams required for licensure)

Language Oral Proficiency Exam required for Student Teaching

EDUC 456 Inclusive School Communities (2 credits)

EDUC 460 Student Teaching and Seminar (6 credits)

EDUC 461 The Teacher as Educational Advocate (4 credits)

Plus one of the languages:

French

28 credits numbered FREN 300 and above with a minimum of six credits in each of the following areas:

Oral and Written Language

Culture/Civilization

Literature

German

28 credits numbered GER 300 and above with a minimum of six credits in each of the following areas:

Oral and Written Language

Culture/Civilization

Literature

Plus:

HIST - Four credits in modern European history

Spanish

28 credits numbered SPAN 300 and above with a minimum of six credits in each of the following areas:

- Oral and Written Language
- Culture/Civilization
- Literature

Plus:

SPAN - A course in Hispanic linguistics

Plus (for all languages):

Demonstrated competence on all required state standards

EDUC 110 Introduction to Music Education I (0 credit)

An orientation to the profession of music education. Overview of historical, philosophical, sociological, and psychological foundations of music education and related music professions. Exploration of the relationships of these foundations to individual and group instructional settings, vocational issues, and concerns of musicians working as performers, teachers, administrators and business owners. Field observations in a variety of instructional settings. Course is a prerequisite for Music Education Methods I-IV.

EDUC 112 Introduction to Music Education II (0 credit)

Continuation of Introduction to Music Education I. Continued overview of historical, philosophical, sociological, and psychological foundations of music education and related music professions. Advanced exploration of the relationships of these foundations to individual and group instructional settings, vocational issues, and concerns of musicians working as performers, teachers, administrators and business owners. Advanced field observations. Course is a prerequisite for Music Education Methods I-IV.

EDUC 207 Music Education Methods I (4 credits)

Contemporary music pedagogy for children in pre-Kindergarten through Grade 2. Examination of goals, objectives, diverse music repertoire, spiral curriculum content and skill development, strategies, materials, and methods. Study of learning styles, developmental stages, and culturally sensitive materials. Designing lessons and classroom environments for effective music teaching and learning. Techniques for classroom management and discipline. National and state standards for music education relative to Grades Pre K-2 music curricula. Emphasis on artistic teaching. Instrument lab meets one hr. per week: soprano recorder and dulcimer.

Prerequisites: EDUC112, MUSC 213, MUSC 341, and concurrent enrollment in EDUC 369.

EDUC 210 Education's Place in Society (4 credits)

Designed to critically analyze the place of education in today's rapidly changing society. Assists students in recognizing the similarities and differences in the major philosophical positions and evaluating their impact on current educational practice. Focuses on understanding the historic and social perspectives of education.

Prerequisite: Sophomore standing and concurrent registration with EDUC 211

EDUC 211 Field Experience: Introductory (K-12) (0 credit)

This is a Pass/No Pass 30-hour guided, reflective, in-school field experience intended to allow students to explore the professional realities of schools and education. Participation in this field experience requires a Minnesota Criminal Background check.

EDUC 212 Human Relations and Multicultural Education (4 credits)

Designed to engage teachers in a dialogue concerning the issues of cultural diversity in schools, its impact on the learning process and the construction of human relations. Emphasis will be placed on an education that is multicultural, gender fair, and disability aware. It examines issues such as racism, sexism, oppression, prejudice, and discrimination. The course aims to equip the participants with pedagogic practices and instructional techniques that respond to social conflicts and stresses within the classroom and that will enable them to create productive learning situations for all students. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisite: Sophomore standing

EDUC 218 Teaching Techniques for Brass Instruments (2 credits)

This course will acquaint the prospective music teacher with the basic knowledge and skills of performance pedagogy of brass instruments which include proper embouchure, tone production, intonation, breathing, articulation, posture, and fingering patterns. Students will become familiar with the construction and operation of these instruments and be able to make minor repairs. The students will gain knowledge of representative beginning through grade 12 solo and ensemble repertoire from diverse periods and become acquainted with instructional materials for beginning, intermediate, and advance levels of students. Students will learn how to select instruments, mouthpieces, and other equipment appropriate for elementary and secondary instrumental pupils.

EDUC 220 Teaching Techniques for Percussion Instruments (2 credits)

This course will acquaint the prospective instrumental music teacher with the basic knowledge and skills of performance pedagogy of percussion instruments which include proper technique, tone production, intonation, articulation, posture, and patterns. Students will become familiar with the construction and operation of these instruments

Education

and be able to make minor repairs. The students will gain knowledge of representative beginning through grade 12 solo and ensemble repertoire from diverse periods and become acquainted with instructional materials for beginning, intermediate, and advance levels of students. Students will learn how to select instruments and other equipment appropriate for elementary and secondary instrumental pupils.

EDUC 221 Teaching Techniques for Woodwinds (1 credit)

This course will acquaint the prospective instrumental music teacher with the basic knowledge and skills of performance pedagogy of woodwind instruments that include proper embouchure, tone production, intonation, breathing, articulation, posture, and fingering patterns. Students will become familiar with the construction and operation of these instruments and be able to make minor repairs. The students will gain knowledge of representative beginning through grade 12 solo and ensemble repertoire from diverse periods and become acquainted with instructional materials for beginning, intermediate, and advance levels of students. Students will learn how to select instruments, mouthpieces, and other equipment appropriate for elementary and secondary instrumental pupils.

EDUC 295, 296 Topics (2 credits)

EDUC 297, 298 Topics (4 credits)

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available at www.stthomas.edu/registrar/onlineschedule/.

EDUC 307 Music Education Methods II (4 credits)

Contemporary music pedagogy for children in Grades 3-5. Examination of goals, objectives, diverse music repertoire, spiral curriculum content and skill development, strategies, materials, and methods. Study of learning styles, developmental stages, and culturally sensitive materials. Designing lessons and classroom environments for effective music teaching and learning. Techniques for classroom management and discipline. National and state standards for music education relative to Grades 3-5 music curricula. Emphasis on artistic teaching. Instrument lab meets one hour per week: autoharp; pitched and unpitched percussion.

Prerequisites: EDUC 207, MUSC 214, and concurrent enrollment in EDUC 369

EDUC 308 Pedagogy and Literature for Music Performers I (2 credits)

Cross-listed with MUSC 308:

Section 1: Voice

Section 2: Keyboard

Section 3: Guitar

Section 4: Winds/Percussion/Brass

All 4 sections will meet concurrently.

This class will survey methods and materials for performance studies. Discussions will include principles of technique, learning theories, musicianship, and performance based upon a wide and diverse body of literature. Students should sign up for section numbers that correspond with primary area of performance.

EDUC 309 Pedagogy and Literature for Music Performers II (2 credits)

Cross-listed with MUSC 309:

Section 1: Voice

Section 2: Keyboard

Section 3: Guitar

Section 4: Winds/Percussion/Brass

All 4 sections will meet concurrently.

A continuation of Pedagogy and Literature for Music Performers I, this class will survey methods and materials for performance studies. Discussions will include principles of technique, learning theories, musicianship, and performance based upon a wide and diverse body of literature. Students should sign up for section numbers that correspond with primary area of performance.

Prerequisite: EDUC 308/MUSC 308

EDUC 314 Music Education Methods III (4 credits)

Contemporary music pedagogy for children in Grades 6-8. Examination of goals, objectives, diverse music repertoire, spiral curriculum content and skill development, strategies, materials, and methods. Study of learning styles, developmental stages, and culturally sensitive materials. Designing lessons and classroom environments for effective music teaching and learning. Techniques for classroom management and discipline. National and state standards for music education relative to Grades 6-8 music curricula. Emphasis on artistic teaching. Instrument lab meets one hour per week: guitar, small ensembles, beginning arranging.

Prerequisites: EDUC 307

EDUC 324 Teaching Techniques for Strings (1 credit)

This course will acquaint the prospective instrumental music teacher with the basic knowledge and skills of performance pedagogy of string instruments which include proper technique, tone production, intonation, articulation, posture, and patterns. Students will become familiar with the construction and operation of these instruments and be able to make minor repairs. The students will gain knowledge of representative beginning through grade 12 solo and ensemble repertoire from diverse periods and become acquainted with instructional materials for beginning, inter-

mediate, and advance levels of students. Students will learn how to select instruments and other equipment appropriate for elementary and secondary instrumental pupils.

EDUC 328 Vocal Pedagogy for Music Educators (1 credit)

Study of the physical structure of the vocal mechanism. Development of teaching techniques to promote life-long healthy singing, including appropriate vocal exercises and choral and solo repertoire; Special attention to unchanged child voice, adolescent changing voice, and adult singer.

Prerequisite: EDUC 207

EDUC 330 Psychology for Teaching and Learning (4 credits)

This course integrates psychological principles with strategies for effective instruction. Prospective K-12 teachers explore the scientific knowledge base that underlies good teaching practices; they learn to apply the principles of educational psychology to their own learning and future teaching through reading, discussion, classroom simulations, school observations and micro-teaching demonstrations.

Prerequisite: EDUC 210 and concurrent registration with 331

EDUC 331 Field Experience: Middle Level (5-8) (0 credit)

This is a Pass/No Pass 15 hour guided, reflective, in-school field experience intended to introduce students to middle level settings and level students. This experience introduces the middle level as a pedagogical bridge between the elementary and the secondary learner. Participation in this field experience requires a recent Minnesota Criminal Background check.

EDUC 334 Vocal Diction (1 credit)

Fundamentals of English, Italian, German, and French pronunciation utilizing the International Phonetic Alphabet. Special emphasis on common diction problems encountered in choral singing and corrective techniques; use of foreign language dictionaries.

Prerequisite: EDUC 307

EDUC 345 Adolescent Literature (2 credits)

Survey of contemporary literature for adolescents; exploration of ways in which this literature meets the reading interests and needs of adolescents; emphasis on developing familiarity with literature read by adolescents; methods and programs to stimulate reading interests and practices.

Prerequisite: EDUC 210

EDUC 350 Language Development, Literacy, and Literature I (4 credits)

This course is Part I of a two-course literacy block designed to introduce the pre-service teacher to the theory and practice of elementary curriculum and instruction in the areas of reading, language arts, and children's literature. Campus and elementary school experiences will emphasize the importance of teaching in an integrated manner to students of diverse socio-economic backgrounds and cultures. The course will present developmentally appropriate practice for kindergarten, primary, and intermediate grades, the current knowledge base of research, and recommendations for professional development. As the introductory course in literacy, it will focus on language development and literacy processes as a foundation for understanding curricular development in and applications for literacy in the elementary classroom.

Prerequisites: EDUC 210 and 212

EDUC 355 Reading for the 5-12 Teacher (4 credits)

This course is designed to explore how teachers can assist students to more easily deal with content area reading materials to include textbooks, written directions, newspapers, graphs/charts/maps, and manuals; and at the same time to encourage positive attitudes toward reading and writing in content areas.

EDUC 369 Field Experience: Primary Level (K-4) (0 credit)

This is a Pass/No Pass a 100 hour guided, reflective, in-school field experience at the primary level. Intended to serve as a pre-student teaching experience, it includes lesson design, whole group instruction, classroom management, student assessment, and instructional reflection. Participation in this field experience requires a recent Minnesota Criminal Background check.

EDUC 370 Language Development, Literacy, and Literature II (4 credits)

This course is Part II of a two-course literacy block designed to introduce the pre-service teacher to the theory and practice of elementary curriculum and instruction in the areas of reading, language arts, and children's literature. Campus and elementary school experiences will emphasize the importance of teaching in an integrated manner to students of diverse socio-economic backgrounds and cultures. The course will present developmentally appropriate practice for kindergarten, primary, and intermediate grades, the current knowledge base of research and recommendations for professional development. This second course in the literacy block will extend the foundations in language, literacy and children's literature presented in the initial course to classroom applications in composing processes (writer's workshop), assessment/evaluation, content area reading, and interdisciplinary instruction. The course includes field-based experiences.

Prerequisites: EDUC 210, 212, 330 and 350 plus unconditional admission to the teacher education program; concurrent registration with EDUC 331, 371, 372, 373, and 374

Education

EDUC 371 Teaching Mathematics and Technology (4 credits)

This course is designed to prepare teachers who will effectively engage learners with mathematics and technology. Emphasis is on developmentally appropriate practice for a range of learners in kindergarten, primary and intermediate grades; curriculum content and sources; performance based assessment strategies; connections with community resources; national and state standards; lesson and unit planning; and curriculum and technology integration. The course includes field-based experiences.

Prerequisites: EDUC 210, 212, 330 and 350 plus unconditional admission to the teacher education program; concurrent registration with 370, 372, 373, and 374

EDUC 372 Teaching Science and Healthy, Active Living (4 credits)

This course is designed to prepare teachers who will effectively engage learners with science and help them have the skills for lifelong healthy, active living. Emphasis is on developmentally appropriate practice for a range of learners in kindergarten, primary and intermediate grades; curriculum content and sources; instructionally based assessment strategies; connections with community resources; national and state standards; lesson and unit planning; and curriculum and technology integration. The course includes field-based experiences.

Prerequisites: EDUC 210, 212, 330 and 350 plus unconditional admission to the teacher education program; concurrent registration with EDUC 370, 371, 373, and 374

EDUC 373 Teaching Social Studies and Fine Arts (4 credits)

This course provides an overview of the social studies and fine arts for the elementary teacher that develops a civic and cultural awareness respectful of human diversity. National and state standards, unit and lesson planning, instructional resources and technology, teaching and assessment strategies, and curriculum integration are addressed. The course includes field-based experiences.

Prerequisites: EDUC 210, 212, 330 and 350 plus unconditional admission to the teacher education program; concurrent registration with EDUC 370, 371, 372, and 374

EDUC 374 Seminar in Middle Level Concentration Area (0 credit)

Students will participate in a series of guided classroom and field experiences designed to meet the Minnesota middle level competencies for K-6 pre-service teachers in their chosen 5-8 area of academic concentration. Emphasis is on developmentally appropriate practice for a range of learners in grades 5 through 8, expanding the content, curriculum, and instructional strategies students gain through their K-6 methods courses. Age appropriate performance based assessment strategies; connections with community resources; national and state standards; lesson and unit planning; and curriculum and technology integration will be covered.

Prerequisites: EDUC 210, 212, 330 and 350 plus unconditional admission to the teacher education program; concurrent registration with EDUC 370, 371, 372, and 373

- 01 Communication Arts and Literature (5-8)
- 02 Mathematics (5-8)
- 03 Science (5-8)
- 04 Social Studies (5-8)
- 05 World Languages and Cultures (K-8)

EDUC 380 Curriculum and Methods for Specific Discipline (K-12) (4 credits)

This course is designed to prepare teachers who will effectively engage learners with the curriculum of a specific licensure area. Emphasis is on developmentally appropriate practice for a range of learners in grades K through 12, curriculum content and sources; performance based assessment strategies; connections with community resources; national and state standards; lesson and unit planning; and curriculum and technology integration. The course includes a clinical experience.

Prerequisites: EDUC 210, 212, 330, plus unconditional admission to the teacher education program; concurrent registration with EDUC 383

EDUC 381 Curriculum and Methods for Specific Discipline (5-8) (2 credits)

This course is designed to prepare teachers who will effectively engage learners with the curriculum of a specific licensure area. Emphasis is on developmentally appropriate practice for a range of learners in grades 5 through 8, curriculum content and sources; performance based assessment strategies; connections with community resources; national and state standards; lesson and unit planning; and curriculum and technology integration. The course includes a clinical experience.

Prerequisites: EDUC 210, 212, 330, plus unconditional admission to the teacher education program; concurrent registration with EDUC 382 and 383

- 01 Communication Arts and Literature
- 02 Mathematics
- 03 Science
- 04 Social Studies
- 05 Theater and Dance

EDUC 382 Curriculum and Methods for Specific Discipline (9-12) (2 credits)

This course is designed to prepare teachers who will effectively engage learners with the curriculum of a specific licensure areas. Emphasis is on developmentally appropriate practice for a range of learners in grades 9 through 12, cur-

riculum content and sources; instructionally based assessment strategies; connections with community resources; national and state standards; lesson and unit planning; and curriculum and technology integration. The course includes a clinical experience.

Prerequisites: EDUC 210, 212, 330, plus unconditional admission to the teacher education program; concurrent registration with EDUC 381 and 383

- 01 Communication Arts and Literature
- 02 Mathematics
- 03 Science
- 04 Social Studies
- 05 Theater and Dance

EDUC 383 Field Experience: Secondary (9-12) (0 credit)

This is a Pass/No Pass a 30 hour guided, reflective, in-school field experience at the secondary level. Intended to serve as a pre-student teaching experience, it includes lesson design, whole group instruction, classroom management, student assessment, and instructional reflection. Participation in this field experience requires a recent Minnesota Criminal Background check.

EDUC 418 Music Education Methods IV (4 credits)

Contemporary music pedagogy for children in Grades 9-12. Examination of goals, objectives, diverse music repertoire, spiral curriculum content and skill development, strategies, materials, and methods. Study of learning styles, developmental stages, and culturally sensitive materials. Designing lessons and classroom environments for effective music teaching and learning. Techniques for classroom management and discipline. National and state standards for music education relative to Grades 9-12 music curricula. Emphasis on artistic teaching. Instrument lab meets one hr. per week: electronic applications, advanced arranging, non-traditional ensembles.

Prerequisites: EDUC 314

EDUC 424 Instrument Techniques for Vocal Music Educators (1 credit)

This course will acquaint the prospective choral music teacher with the basic knowledge and skills of performance pedagogy of woodwind, brass, percussion and string instruments which include proper embouchure, tone production, intonation, breathing, articulation, posture, bowing and fingering patterns. Students will become familiar with the construction and operation of these instruments and be able to make minor repairs. The students will gain knowledge of representative beginning through grade 12 solo and ensemble repertoire from diverse periods and become acquainted with instructional materials for beginning, intermediate, and advance levels of students. Students will learn how to select instruments, mouthpieces, and other equipment appropriate for elementary and secondary instrumental pupils.

Prerequisites: EDUC 314

EDUC 456 Inclusive School Communities (2 credits)

Provides an overview of students identified as gifted/talented, students with disabilities (learning disabilities, mental retardation, emotional/behavioral disabilities, and sensory and physical impairments), etiology, and appropriate interventions for exceptional students. Also, current issues and research in the field of exceptionality (legal rights, integration, best practices) are also discussed.

Prerequisite: PPST

EDUC 460 Student Teaching and Seminar (6 credits)

As the culminating experience of the teacher licensure program, student teaching provides the opportunity for students to apply their knowledge and skills of teaching and learning in a classroom setting. Accompanying seminars assist students to reflect upon the experience and to increase their repertoire of strategies for dealing with topical, relevant issues. Student teaching, along with the companion course Teacher as Educational Advocate, is a full-time, full-semester commitment under the supervision of university and school-based professionals. Students seeking licensure in multiple fields may require additional credits and time in the classroom.

Prerequisites: Senior status; unconditional admission to the teacher education program; satisfactory completion of all education courses in Blocks I, II, and III; submission of Multicultural Experience form; a recent Minnesota Criminal Background check; plus satisfactory completion of all licensure-related content courses; plus admission to student teaching, and concurrent registration with EDUC 456, 461.

- 01 (K-8)
- 02 (5-12)
- 03 (K-12)

EDUC 461 The Teacher as Educational Advocate (4 credits)

A capstone course designed to prepare teachers who will effectively collaborate to advocate for strong educational institutions and for students. The course emphasizes connections with families and communities, including strategies for working with students and families for whom English is not the primary language, and skill development in communication and teacher leadership. Includes a portfolio presentation by each teacher candidate as the culminating experience.

Prerequisites: Acceptance into Education program; completion of Blocks I, II and III; senior status; concurrent registration with EDUC 456, 460

Education – Special Education

EDUC 462 Student Teaching and Seminar Dual License Extended Term (10 credits)

This student teaching section is intended for students seeking licensure in multiple fields or grade ranges requiring additional credits and time in the classroom. As the culminating experience of the teacher licensure program, student teaching provides the opportunity for students to apply their knowledge and skills of teaching and learning in a classroom setting. Accompanying seminars assist students to reflect upon the experience and to increase their repertoire of strategies for dealing with topical, relevant issues. Student teaching, along with the companion course Teacher as Educational Advocate, is a full-time, full-semester commitment under the supervision of university and school-based professionals.

Prerequisites: Satisfactory completion of all education courses in Blocks I, II, and III, plus unconditional admission to the teacher education program, plus admission to student teaching, senior status; concurrent registration with EDUC 456, 461

EDUC 483, 484 Seminar (2 credits)

EDUC 485, 486 Seminar (4 credits)

See the description of these courses at the beginning of the “Curricula” section of this catalog.

EDUC 487, 488 Topics (2 credits)

EDUC 489, 490 Topics (4 credits)

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available at www.stthomas.edu/registrar/onlineschedule/.

EDUC 491, 492 Research (2 credits)

EDUC 493, 494 Research (4 credits)

See the description of these courses at the beginning of the “Curricula” section of this catalog.

EDUC 495, 496 Individual Study (2 credits)

EDUC 497, 498 Individual Study (4 credits)

See the description of these courses at the beginning of the “Curricula” section of this catalog.

Special Education (SPUG)

Ryan (chair), Melloy, Vandercook, Wolfe

SPUG 405 Basic Skills Instruction: Mild/Moderate Handicaps (4 credits) (SPED 705)

Research supported instructional interventions and progress monitoring strategies emphasizing practical knowledge, theoretical foundations and classroom skills for the instruction of students with mild/moderate handicaps in the basic skills: reading, written expression, spelling and mathematics.

Prerequisite: Permission of the chair

SPUG 414 Collaboration Skills for School Professionals (4 credits) (SPED 714)

The purpose of this course is to develop an ethic of collaboration and the knowledge and skills needed to effectively collaborate with faculty, administrators, paraprofessionals, students, families, and community members. Students will explore the fundamentals of collaboration; applications of collaboration related to consultation, interagency agreements, team membership, staff development, and co-teaching; and the pragmatic aspects of collaboration. Students will have the opportunity to develop the personal and interpersonal skills necessary to be an effective collaborative partner in meeting diverse students needs.

SPUG 450 Survey of Exceptionality (4 credits) (SPED 750)

Provides an overview of special education and specific categories of exceptionality. Examines the theories, legal mandates, definitions and terminology related to special education. Characteristics of individuals with exceptionalities are explored. These include but are not limited to: gifted and talented, learning disabilities, emotional and behavioral disorders, developmental disabilities, sensory disabilities, early childhood special education, speech and language disorders.

SPUG 452 Fundamentals of Emotional and Behavioral Disorders (4 credits) (SPED 752)

Provides an introduction to the dynamics of emotional and behavioral disorders, their effect on students' education, legal responsibilities of schools, and collaboration among schools and other agencies who serve these youth. Theories, definitions, and characteristics within the context of school, family, and community settings will be discussed.

SPUG 453 Fundamentals of Developmental Disabilities (4 credits) (SPED 753)

To learn about students with developmental disabilities. These are students with a broad range of cognitive impairments and deficits in adaptive behavior. Most recently these have been individuals who have been identified as having mental retardation or mental impairments. This course will focus upon definition, etiology, prevention, assessment, characteristics, programming, family issues, inclusion, collaboration, transition and other current issues related to persons with cognitive or developmental disabilities.

SPUG 478 Fundamentals of Preschoolers (4 credits) (SPED 778)

This course is designed to provide a foundation for working with preschoolers and their families in early childhood and early childhood special education programs. Emphasis is placed on early childhood typical and atypical development, developmentally appropriate practice, and developing curriculum that is functional, appropriate, adaptable and fun. Curriculum units are created that enhance child development and are adapted for children with a variety of disabilities.

SPUG 485 Behavior Management (4 credits) (SPED 785)

This course explores the idea of positive behavior support for promoting acceptable behavior in school and other settings where youth learn. This course, grounded in research-based interventions, is designed to assist all who work with students in special and regular education in developing skills to teach and support acceptable behavior that will be demonstrated in home, school and community settings.

SPUG 486 Fundamentals of Learning Disabilities (4 credits) (SPED 786)

Theoretical and practical knowledge about the field of learning disabilities. This course emphasizes school-based definitions, criteria, characteristics, and etiology, as well as community and family support systems. It includes an analysis of current trends at the local, state, and national levels for students with learning disabilities.

Engineering (ENGR) - School of Engineering

School of Engineering

Department of Engineering

Bennett (dean), Abraham, George, Greene, Hennessey, Jalkio(chair), Mowry, Polsenberg Thomas

Faculty from other departments and adjunct faculty from industry teach specialized courses.

The University of St. Thomas offers five tracks in engineering:

- A program in electrical engineering
- A program in mechanical engineering
- Dual degree programs with Business, Physics, and QMCS
- Pre-engineering program
- Minors in engineering

The mechanical and electrical engineering curricula combine the study of basic sciences, general engineering, design and mechanical or electrical engineering with the study of the liberal arts. Emphasis is placed on applied engineering. Our mission states: "We provide an applied, values-based learning experience that produces well-rounded, innovative engineers and technology leaders who have the technical skills, passion and courage to make a difference."

Students graduating with a major in either mechanical or electrical engineering will meet the program objectives and outcomes designed to exceed the requirements of the Engineering Accreditation Commission (EAC) of the Accreditation Board for Engineering and Technology's (ABET) *Engineering Criteria 2000*. These are a comprehensive set of criteria designed to provide graduates with the technical, ethical, attitudinal and communications skills required to be a productive contributor to society and to aggressively seek life-long learning experiences. These program objectives and outcomes are designed to provide the graduate with a foundation for clear thinking and expression in a balanced liberal arts educational program. Graduates will demonstrate competence in a variety of skills that enhance their ability to solve problems in diverse ways to meet the needs of the global community. Graduates will also develop teamwork and communication skills while gaining a comprehensive understanding of the design process and engineering systems.

Graduates will be prepared for direct entry into an engineering position in industry or for advanced study in graduate school.

Degree in Electrical Engineering (B.S.E.E.)

The bachelor of science in electrical engineering (B.S.E.E.) curriculum includes courses in circuits and electronics, signal processing and control system design, digital electronics and microprocessors, and electromagnetic fields and waves with a focus on embedded system design. The electrical engineering program is academically rigorous, complemented with a full liberal arts curriculum. The B.S.E.E. program is accredited by the Engineering Accreditation Commission (EAC) of ABET (410) 347-7700.

Program outcomes and objectives may be found on the Website: www.stthomas.edu/engineering.

Students must have completed ENGR 230 to be admitted to the major.

ENGR 150 Introduction to Engineering (0 credit)

ENGR 151 Introduction to Engineering Design (1 credit)

ENGR 230 Digital Design (4 credits)

ENGR 240 Circuit Analysis (4 credits)

ENGR 330 Design with Microprocessors I (4 credits)

ENGR 331 Design with Microprocessors II (4 credits)

ENGR 340 Signals and Systems (4 credits)

ENGR 342 Electromagnetic Fields and Waves (4 credits)

ENGR 345 Electronics I (4 credits)