

Illinois State University
Department of Mathematics
Secondary Mathematics Teacher Education Sequence

This sequence of the major is part of the entitlement program leading to high school teaching licensure in Illinois. It also provides the background to allow students to pursue careers in business, industry, and government.

Mathematics Requirements (minimum 50 hours, grades of C or better in each course)

MAT 145 Calculus I (4 hours)
MAT 146 Calculus II (4 hours)
MAT 147 Calculus III (4 hours)
MAT 175 Elementary Linear Algebra (4 hours)
MAT 211 Euclidean and Non-Euclidean Geometry (4 hours)
MAT 223 Introduction to Secondary Mathematics Education (3 hours)
MAT 236 Elementary Abstract Algebra (4 hours)
MAT 260 Discrete Mathematics (4 hours)
MAT 320 History of Mathematics (3 hours)
MAT 323 Teaching Mathematics in the Secondary School (3 hours) Fall Only
MAT 324 Seminars for Student Teachers of Mathematics (3 hours) Spring Only
MAT 352 Probability and Statistical Inference for Educators (4 hours)

Capstone Experience (3 hours)—MAT 268 Introduction to Undergraduate Research in Mathematics (Spring Only) or MAT 328 Mathematics for Secondary Teachers—A Capstone Experience (Fall Only)

Elective (3-4 hours)—Chosen from 200- or 300-level mathematics courses that are offered for major/minor credit other than courses designed for the actuarial sequence.

Technology Requirement (3-4 hours)—Chosen from MAT 326 Mathematical Problem Solving Using Technology (3) (Fall Only) or IT 168 Structured Problem-Solving Using the Computer (4) or TEC 151 Introduction to Computer Systems Technology (3) Note: The Technology Requirement does not count toward the 50 Mathematics hours.

Senior Portfolio (Completed in MAT 323 and MAT 324)

Professional Education Requirements (27 hours, grades of C or better in each course)

PSY 215 Educational Psychology (3 hours)
SED 101 The Exceptional Learner (3 hours)
TCH 212 The Teaching Profession in Secondary Schools (2 hours)
TCH 216 Principles & Practices for Teaching & Learning in Secondary Schools (3 hours)
TCH 219 Integrating Multiple Literacies & Technology Across Secondary Curriculum (3 hours)
EAF 228 Social Foundations or EAF 231 Introduction to Philosophy of Education or EAF 235 Historical Foundations (3 hours)
STT 399.27 Student Teaching (10 hours) Spring Only

Required Tests for Professional Educator License – 3

1. State of Illinois Mathematics Content Test (www.icts.nesinc.com)
2. Teacher Performance Assessment (edTPA) (Completed during student teaching) (edtpa.aacte.org)

Secondary Mathematics Education Sequence with Pre-Calculus--Sample Four-Year Plan (MAT 144)

Year 1 (32–34 hrs)

Fall (16–17 hours)

MAT 144 Pre-Calculus (4)
ENG 101 or COM 110 (3)
General Education course (3)
PSY 110 Fund of Psychology (3)
LAN 111*** or University Wide Elective (3–4)

Spring (16–17 hours)

MAT 145 Calculus I (4)
ENG 101 or COM 110 (3)
SED 101 Disability, Learning & Education (3)
General Education course (3)
LAN 112*** or University Wide Elective (3–4)

Year 2 (32 hrs)

Fall (16 hours)

MAT 146 Calculus II (4)
PSY 215 Educational Psychology (3)
General Education course (3)
General Education course (3)
General Education course (3)

Spring (16 hours)

MAT 147 Calculus III (4)
MAT 175 Elementary Linear Algebra (4)
MAT 320 History of Mathematics (3)
TCH 212 Teaching Profession in Sec Schools (2)
General Education course (3)

Year 3 (31–32 hrs)

Fall (17 hours)

MAT 260 Discrete Mathematics (4)

MAT 211 Euclid & Non-Euclid Geometry (4)
MAT 223 Intro Secondary Math Education (3)
TCH 216 Principles & Practices for T & L (3)
General Education course (3)

Spring (14–15 hours)

MAT 352 Probability and Statistical Inference for Educators (4)
MAT 236 (4)
MAT Elective or IT/TEC course (3–4)
TCH 219 Integrating Multiple Lit & Tec (3)

Year 4 (25 hrs)

Fall (12 hours)

MAT 323 Teach Math Secondary School (3)
MAT 328* (Fall Only) Math for Sec Teacher (3)
MAT 326 (Fall)** Math Problem Solving using Technology (3)
EAF 228 or 231 or 235 (3)

Spring (13 hours)

MAT 324 Seminars for Student Teachers (3)
STT 399.27 Student Teaching (10)

*CAPSTONE EXPERIENCE: One of MAT 268 (Spring Only) or MAT 328 (Fall Only) must be completed.

**TECHNOLOGY REQUIREMENT: One of MAT 326 or IT 168 or TEC 151 must be completed.

***Students must satisfy a foreign language requirement that may be met by 3 years of a single foreign language in high school or completion of the second semester or higher of college-level foreign language (LAN 112 or articulated course) with a grade of "C" or better or equivalent proficiency as determined by examination. American Sign Language may be used to fulfill this requirement by transfer credit or by proficiency.

Overall Graduation Requirements

Complete a minimum of **120 hours**; complete General Education requirements; complete at least 42 senior level hours, complete residency requirements; complete an AMALI (Asia, Middle East, Africa, Latin America, Indigenous Peoples of the World) course; complete the foreign language requirement; maintain a minimum GPA of 2.8 overall and in the major; submission of a senior portfolio. In addition, all Performance-Based Assessments for the Education Unit must be complete. To be eligible for licensure, all three required State of Illinois tests must be passed. **For complete, official information, consult your catalog.**

Contact **Alex Keene**, Mathematics Department Academic Advisor, for more information.

Mathematics Department, Campus Box 4520, Normal, IL 61790-4520

akeene@ilstu.edu

2019–2020 Catalog

Secondary Mathematics Education Sequence with Pre-Calculus--Sample Four-Year Plan (MAT 145)

Year 1 (32–34 hrs)	
Fall (16–17 hours) MAT 145 Calculus I (4) ENG 101 or COM 110 (3) General Education course (3) PSY 110 Fund of Psychology (3) LAN 111*** or University Wide Elective (3–4)	Spring (16–17 hours) MAT 146 Calculus II (4) ENG 101 or COM 110 (3) SED 101 Disability, Learning & Education (3) General Education course (3) LAN 112*** or University Wide Elective (3–4)
Year 2 (32 hrs)	
Fall (16 hours) MAT 147 Calculus III (4) PSY 215 Educational Psychology (3) General Education course (3) General Education course (3) General Education course (3)	Spring (16 hours) MAT 352 Probability and Statistical Inference for Educators (4) MAT 175 Elementary Linear Algebra (4) MAT 320 History of Mathematics (3) TCH 212 Teaching Profession in Sec Schools (2) General Education course (3)
Year 3 (30–32 hrs)	
Fall (17 hours) MAT 260 Discrete Mathematics (4) MAT 211 Euclid & Non-Euclid Geometry (4) MAT 223 Intro Secondary Math Education (3) TCH 216 Principles & Practices for T & L (3) General Education course (3)	Spring (13–15 hours) MAT 236 (4) MAT Elective or IT/TEC course (3–4) TCH 219 Integrating Multiple Lit & Tec (3) University Wide Elective (3–4)
Year 4 (25–29 hrs)	
Fall (12–16 hours) MAT 323 Teach Math Secondary School (3) MAT 328* (Fall Only) Math for Sec Teacher (3) MAT 326 (Fall)** Math Problem Solving using Technology (3) EAF 228 or 231 or 235 (3) <i>University Wide Elective (3–4), if needed</i>	Spring (13 hours) MAT 324 Seminars for Student Teachers (3) STT 399.27 Student Teaching (10)

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