



Program Coordinators: W. Linderman for Mathematics and R. Gilmore for Education

Teacher Education - MATHEMATICS

The B.S. in Mathematics with Tennessee teaching licensure (Grades 6-12) is available with modifications to the Mathematics major and the King Core Curriculum as well as successful completion of the Secondary Education minor. Licensed teachers in secondary education are in great demand in all fifty states, and the areas of science and mathematics are considered critical need areas in K-12 public education by all states.

Declaration of the Education minor and early and frequent advisement is essential to timely completion of degree and licensure requirements. Students seeking teacher licensure will be assigned a secondary education advisor in the Department of Teacher Education, in addition to their major advisor. See the “Admission to the Teacher Education Program” section of this catalog or contact the Certification Advisor in the School of Education for eligibility criteria, admissions procedures, and timeliness.

Student Learning Outcomes for Teacher Education

In addition to the discipline specific student learning outcomes for Mathematics, teacher candidates will demonstrate mastery of the following Student Learning Outcomes, which are aligned with the both Tennessee Teacher Licensure Standards: Professional Education and InTASC Standards: Interstate Teacher Assessment and Support Consortium.

1. The pre-service teacher understands the central concepts, tools of inquiry, and structures of the discipline(s) he or she teaches and creates learning experiences that make the discipline(s) accessible and meaningful for learners to assure mastery of the content.
2. The pre-service teacher uses understanding of individual differences and diverse cultures and communities to ensure inclusive learning environments that enable each learner to meet high standards.
3. The pre-service teacher understands and uses a variety of instructional strategies to encourage learners to develop deep understanding of content areas and their connections and to build skills to apply knowledge in meaningful ways.

Core Curriculum Requirement

Mathematics majors seeking teaching licensure should fulfill Quantitative Literacy in the King Core Curriculum by taking the course indicated below. “The Core Curriculum” section of the catalog for has additional details on fulfillment of other categories of the Core.

Quantitative Literacy

MATH 2350
 Calculus I 4 s.h.

BS in Mathematics Major Requirements for Teaching Licensure

MATH 2100	
Programming with Graphics, Symbols, and Text.....	2 s.h.
MATH 2360	
Calculus II	4 s.h.
MATH 2410	
Discrete Mathematics	4 s.h.
MATH 2450	
Linear Algebra.....	4 s.h.
MATH 3120	
Number Theory.....	2 s.h.
MATH 3150	
Mathematical Statistics.....	4 s.h.
MATH 3250	
Geometry	4 s.h.
<i>Choose from the following courses</i>	<i>4 s.h.</i>
MATH 2370	
Vector Calculus (4 s.h.)	
MATH 3430	
Differential Equations (4 s.h.)	
MATH 3470	
Applied Mathematics (4 s.h.)	
MATH 3510	
Abstract Algebra (4 s.h.)	
MATH 3610	
Analysis (4 s.h.)	
Math or Natural Science Elective at or above 2100 level	4 s.h.

Secondary Education Minor

EDUC 2030	
Introduction to Teaching: Grades K-12	2 s.h.
EDUC 2031	
Introduction to Teaching Practicum: Grades PreK-12	1 s.h.
EDUC 2100	
Survey of Exceptional Children	4 s.h.
EDUC 2370	
Reflective Teaching: Planning for Classroom Instruction.....	3 s.h.
EDUC 2900	
Foundations of Education.....	3 s.h.
EDUC 2950	
Technology for Teachers	2 s.h.
EDUC 3390*	
Secondary Curriculum and Methods	3 s.h.
EDUC 3590*	
Content Area Reading	3 s.h.
EDUC 3600*	
Assessment and Evaluation	3 s.h.
EDUC 4490*	
Student Teaching: Grades 6-10	5 s.h.
EDUC 4500*	
Student Teaching: Grades 9-12	5 s.h.

EDUC 4940	
Introduction to edTPA	1 s.h.
EDUC 4950*	
Capstone Seminar: Grades K-12	2 s.h.
PSCI 2120	
Cultural Diversity in America	4 s.h.
PSYC 3320	
Adolescent Development.....	4 s.h.
EDUC 4990*	
Comprehensive Assessment (passing state-required Praxis II, successful portfolio completion, successful portfolio defense)	0 s.h.

*Requires admittance to the Teacher Education Program

Summary of Total Credits for Secondary Licensure in Mathematics

Core Curriculum	42 s.h.
Major Requirements.....	32 s.h.
Secondary Education Minor.....	45 s.h.
Electives.....	<u>6 s.h.</u>
Minimum to Complete BS in Math with Licensure	125 s.h.