



SANFORD COLLEGE OF EDUCATION

BACHELOR OF ARTS IN MATHEMATICS EDUCATION

WITH NEVADA SECONDARY LICENSURE

Teach Math to Enable Student Success

The Bachelor of Arts in Mathematics Education with Nevada Secondary Licensure program provides a rigorous preparation of candidates for a career as a teacher of Mathematics at the middle and secondary school levels. The program stresses foundations in mathematics and its applications.

This program prepares teacher candidates for entry into Nevada's teaching profession as mathematics teachers who are dedicated to inspiring all K12 learners by emphasizing: social/emotional thriving, meaningful academic achievement, and equitable and inclusive learning communities. The program and courses meet the Nevada Department of Education requirements for a Nevada Secondary Licensure in Mathematics.

Program highlights:

- Program is available online except for field experience requirements. (Please see catalog for specific field experience requirements)
- Apply reasoning to solve problems in mathematics and applied settings
- Use technology for expanding mathematics research and study
- Understand the language and symbols used to communicate mathematical ideas
- Develop a foundation in geometry
- Model real-world problems with algebraic and transcendental functions
- Understand advanced statistics and probability concepts and methods
- Gain competencies in teaching Secondary Math

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BACHELOR OF ARTS IN MATHEMATICS EDUCATION WITH NEVADA SECONDARY LICENSURE

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The Bachelor of Arts in Mathematics Education with Nevada Secondary Licensure provides a rigorous education that prepares candidates for a career as a teacher of Mathematics at the middle and secondary school levels. The program stresses foundation in mathematics and its application. This program prepares candidates for professional work as single-subject teachers in a changing cultural and economic environment. Candidates are required to complete all required coursework as well as the PRAXIS I and PRAXIS II to receive a license.

Program Learning Outcomes

Upon successful completion of this program, students will be able to:

- Employ a variety of reasoning skills and effective strategies for solving problems both within the discipline of mathematics and in applied settings that include non-routine situations.
- Use language and mathematical symbols to communicate mathematical ideas in the connections and interplay among various mathematical topics and their applications that cover range of phenomena across appropriate disciplines.
- Use current technology tools, such as computers, calculators, graphing utilities, video, and interactive programs that are appropriate for the research and study in mathematics.
- Employ algebra and number theory ideas and tools as a base of a fundamental language of mathematics research and communication.
- Develop fundamental knowledge in geometry.
- Model real world problems with a variety of algebraic and transcendental functions.
- Use advanced statistics and probability concepts and methods.
- Use educational technology to meet the needs of all learners including those with special needs linguistically and culturally diverse students.
- Explain how to support growth in cognitive, social, physical and emotional domains.
- Create a positive learning environment that ensures healthy human growth.
- Utilize systematic observations, documentation, and other effective assessment strategies in a responsible manner to facilitate and account for learning and to support positive growth.
- Design, implement, and evaluate standards-based lesson plans for learning and achievement in content areas.
- Demonstrate professional standards and ethics.
- Utilize different teaching strategies to accomplish the teaching and learning goals.

Degree Requirements

To receive a Bachelor of Arts in Mathematics Education with Nevada Secondary Licensure, candidates must complete at least 180 quarter units as articulated below, 45 of which must be completed in residence at National University and 76.5 of which must be completed at the upper-division level. In the absence of transfer credit, additional general electives may be necessary to satisfy total units for the degree.

Preparation for the Major

(5 courses; 19.5 quarter units)

TED 320	Introduction to Teaching (1.5 quarter units)
HIS 375	Nevada History, Gov't and Cons. <i>Prerequisite: ENG 100 and ENG 101</i>
MTH 221	Calculus II <i>Prerequisite: MTH 220</i>
MTH 222	Calculus III <i>Prerequisite: MTH 221</i>
MTH 223	Calculus IV <i>Prerequisite: MTH 222</i>

Passage of PRAXIS I Examination is required before beginning coursework for the major.

Requirements for the Major

(23 courses; 102 quarter units)

Mathematics Major Requirements

(11 courses; 49.5 quarter units)

MTH 311	Topics from Geometry <i>Prerequisite: Accuplacer test placement or MTH 216B or MTH 215</i>
MTH 325	Discrete Mathematics <i>Prerequisite: MTH 215 or MTH 216A and MTH 216B</i>
OR	
CSC 331	Discrete Structures and Logic <i>Prerequisite: CSC 252 and CSC 310</i>
MTH 411	Number Theory <i>Prerequisite: MTH 216B or MTH 215 or MTH 301</i>
MTH 435	Linear Algebra <i>Prerequisite: MTH 220 and MTH 325</i>
MTH 416	Algebraic Structures <i>Prerequisite: MTH 435 and MTH 325</i>
MTH 417	Foundations of Geometry <i>Prerequisite: MTH 216A and MTH 216B or MTH 215 and MTH 311</i>
MTH 418	Statistical Analysis <i>Prerequisite: MTH 210 and MTH 220</i>
MTH 412	History of Mathematics <i>Prerequisite: MTH 215 or MTH 301 or MTH 216A and MTH 216B</i>
MTH 410	Technology in Math Education <i>Prerequisite: MTH 215 or MTH 216A and MTH 216B or MTH 301</i>
MTH 460	Problem Solving Strategies <i>Prerequisite: MTH 416 and MTH 417</i>
MTH 461	Methods of Teaching Math <i>Prerequisite: MTH 311, MTH 412, MTH 210 and MTH 460</i>

Education Theory and Methodology Requirements

(8 courses; 36 quarter units)

All Teacher Education coursework has a field experience component. Students must maintain a 3.0 GPA within all TED coursework. Grades of "D" or "F" are not acceptable in TED courses.

TED 300	Fundamentals of Education <i>Prerequisite: TED 320 or TED 305 or TED 306</i>
TED 310	Development and Learning <i>Prerequisite: TED 305 or TED 320 or TED 306</i>
TED 330B	Reading and Language Arts <i>Prerequisite: TED 305 or TED 320</i>
TED 340	Content Area Reading Methods <i>Prerequisite: TED 305 or TED 320</i>
TED 420	Diversity in Schooling <i>Prerequisite: TED 305 or TED 320</i>
TED 430	Special Needs Students <i>Prerequisite: TED 305 or TED 320 or TED 306</i>
TED 440	Leadership and Assessment <i>Prerequisite: TED 305 or TED 320 or TED 306</i>
TED 538	Parent Engagement

Student Teaching Requirements

(4 courses, 16.5 quarter units)

Students must pass PRAXIS I & II prior to Student Teaching I. TED 470 and 465 A, B, and C are field experience courses receiving a Satisfactory or Unsatisfactory grade and are not factored into the cumulative GPA.

TED 465A	Student Teaching I <i>Prerequisite: Completion of all upper-division course requirements, including all TED coursework.</i>
TED 465B	Student Teaching II <i>Prerequisite: Completion of all upper-division course requirements, including all TED coursework.</i>
TED 465C	Student Teaching III <i>Prerequisite: Completion of all upper-division course requirements, including all TED coursework.</i>
TED 470	Student Teach/E-Portfolio (3 quarter units) <i>Prerequisite: Completion of all course requirements and Admission to Student Teaching, this course must be taken concurrently with TED 465A-D</i>