

MATHEMATICS (BS) - SECONDARY EDUCATION CONCENTRATION

Program Learning Outcomes

- an understanding of calculus and an ability to use calculus in applications
- knowledge of algebraic structures
- knowledge of the real numbers, functions, the topological properties of \mathbb{R} , differentiation, and integration
- knowledge of and the ability to apply probability density functions
- Knowledge of appropriate mathematical models
- The ability to think critically
- The ability to understand mathematical arguments and to construct mathematical proofs
- The ability to use computational devices and software in problem solving situations
- communication skills to acquire, develop, and convey mathematical knowledge
- Demonstrate proficiency in planning instruction based on standards and knowledge of students
- Demonstrate proficiency in using a wide range of instructional strategies and differentiating instruction to help all students learn
- Demonstrate proficiencies related to assessing learning and teaching and using assessment data to adapt instruction for improved student learning
- Display values, commitments, dispositions, and habits associated with effective and professional teaching