

### B.A and B.S. in Mathematics

Program	B.A. and B.S. Mathematics
Department(s)	Mathematical Sciences
College	Sciences

**1. Student Learning Outcomes for the program.** List the Student Learning Outcomes for the program. *Number for later reference.*

Our students that graduate with either a B.S. or a B.A. in the Mathematical Sciences will...

1. Demonstrate a solid understanding of differential (1A), integral (1B) and multivariable (1C) calculus, and be able to apply these concepts to a variety of problems.
2. Demonstrate a solid understanding of vector calculus (2A), linear algebra (2B), ordinary differential equations (2C), higher level algebra (2D) and analysis (2E), and be able to apply these concepts to a variety of problems.
3. Be able to think analytically and critically and to formulate problems, solve them, and interpret their solutions.
4. Achieve an understanding of the nature of proof, in particular should demonstrate a good understanding of rigorous mathematical proof (reading and writing), and apply reasoning based on definitions, axioms, theorems and induction.
5. Communicate effectively in writing.
6. Have experience applying knowledge from one branch of mathematics to another and from mathematics to other disciplines.

Items highlighted gray are common with the actuarial science concentration.