UNIVERSITY *of* **SAN CARLOS**
SCIENTIA • VIRTUS • DEVOTIO

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BACHELOR OF SCIENCE
Mathematics

The Bachelor of Science in Mathematics (BS Math) program provides students with substantial exposure to the breadth and depth of mathematics, from classical to contemporary, and from theoretical to applied.

The curriculum covers foundational courses in core areas of pure and applied mathematics as well as advanced courses that will help prepare graduates to pursue higher studies or work in a variety of fields.

As such, graduates of the program are equipped with enhanced mathematical and critical thinking skills, helped to develop a deeper appreciation of mathematics in history and the modern world, and enabled to do research or perform jobs that require analytical thinking and quantitative skills.

The Program in Mathematics builds competencies for these jobs:

- Programmers
- Statisticians
- Researchers
- Search Engine Optimization Analysts
- Actuarial Scientists
- Market Analysts
- Insurance Analysts
- Finance & Risk Analysts
- Data Scientists
- Project Development and Management Group Assistant Managers
- Project Development Officers
- Merchandise Planners
- Concession and Leasing Officers
- Space Management Analysts (Planogram Planner)
- Space Analysts
- Software Design Engineers
- Bankers
- Professors & lecturers
- Consultants

CORE COURSES

- Pre-Calculus
- Calculus 1, 2, & 3
- Fundamentals of Computing 1 & 2
- Fundamental Concepts of Mathematics
- General Physics 1 Lecture & Laboratory
- General Chemistry 1
- Linear Algebra
- Number Theory
- Probability Theory

PROFESSIONAL COURSES

- Abstract Algebra 1 & 2
- Advanced Calculus 1
- Applied Regression Analysis
- Complex Analysis
- Differential Equations 1
- Modern Geometry
- Numerical Analysis and Applications
- Operations Research 1
- Statistical Analysis

ELECTIVE COURSES

- Advanced Calculus 2
- Applied Multivariate Analysis
- Convex Analysis
- Data Structures
- Design of Experiments
- Differential Equations 2
- Financial Mathematics
- Graph Theory and Applications
- History and Development of Fundamental Ideas in Mathematics
- Mathematical Modeling
- Operations Research 2
- Theory of Interest
- Real Analysis 1

THESIS AND INTERNSHIP COURSES

- OJT
- Thesis 1 & 2