

The UNIVERSITY and the BATON ROUGE COMMUNITY

Southern University and A & M College is a fully accredited university offering opportunity for education for over 6,000 students. The University has its University College and six colleges and schools.

In 1879, a group of individuals sponsored a movement in the LA State Constitutional Convention that resulted in the establishment of an institution “for the education of persons of color” in the city of New Orleans. This institution was chartered in 1880. In March 1914, the institution was moved to its present site, Scotlandville, Louisiana. A rich history of excellence has continued here at Southern University throughout the years.

Over the years, the Baton Rouge Community has offered Southern’s students vast opportunities in Academic, Industrial and Legislative environments. Being a leading center for the petrochemical business, students in scientific areas have immediate opportunities to get exposure in their chosen disciplines. Baton Rouge is also blessed with a mild climate which permits an abundance of outdoor and cultural activities.

WHY STUDY MATHEMATICS?

Mathematics is a subject that is more widely treasured for its sheer elegance than its immediate usefulness. It is certain that our scientific and technological society cannot advance in this globally competitive environment without the tools gained from mathematics.

The study of mathematics parallels the study of such subjects like music, religion, and language. Mathematics is simply a part of human nature. Mathematics is a study of natural patterns and examining conjectures in an effort to give generalized results.

Those who have only been exposed to arithmetic, geometry, and elementary algebra have not experienced areas of mathematics dealing with the collection and observation of the data, deduction, and proof of objects of common occurrence.

Abstraction, order, inference, chance, and patterns are all terms that are commonplace in the language of mathematics. Mathematics only accepts logic, not beliefs, as its standards. There is still a lot of mathematics to be done, both for technological advances and to satisfy our intellectual thirsts.

$$\int_{-\infty}^{\infty} e^{-x^2} dx = \sqrt{\pi}$$
$$f(x) = a_0 + \sum_{n=1}^{\infty} \left(a_n \cos \frac{n\pi x}{L} + b_n \sin \frac{n\pi x}{L} \right)$$
$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

BACHELOR DEGREE PROGRAM in MATHEMATICS and PHYSICS

The undergraduate program at Southern University has been developed to prepare students with a wide variety of areas of mathematics. In addition to servicing students from other disciplines like computer science, physics, engineering, business, and biology, the department offers intermediate and advanced courses to prepare students with a sound foundation to enter careers that make extensive use of mathematics. Also, the department provides specialized training for high school and middle school teachers.

B.S. DEGREE REQUIREMENTS

A student must complete a total of 120 semester hours with a grade of ‘C’ or better in all mathematics courses. These hours must include 43 hours in mathematics in courses numbered above Math 200. The required courses are:

- Calculus I, II, III
- Intro to Linear Algebra
- Topics in Geometry
- Statistics for Mathematical Sciences or Engineering Majors
- Modern Algebra I
- Advanced Calculus
- Intro. to Differential Equations
- Real Analysis

The additional nine (9) hours are to be completed from a select list of electives provided by the department. It is

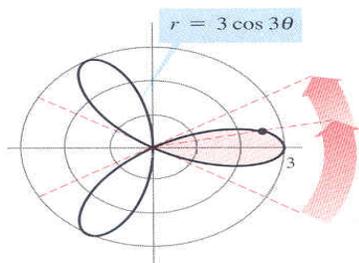
recommended that a student take more than these forty-three (43) semester hours if graduate school in Mathematics is in the student's career plans.

SUPPORT SERVICES

A vast amount of resources are available to help increase the student's chances of success in mathematics. The Mathematics Laboratory, which is equipped with modern computer technology, challenges the student to complete supplementary exercises outside of actual class time, corresponding to their respective lectures.

Some classes utilize technological advances such as graphing calculators, which give students a chance to investigate more challenging concepts.

These services, along with countless classroom and office hours, emphasize the department's commitment to excellence in mathematics education.



MATHEMATICS ORGANIZATIONS and SERVICES

Southern University has mathematics organizations and services:

- **Pi Mu Epsilon** – National Mathematics Honorary Society. Louisiana Beta Chapter of PME is open to students who display excellence in mathematics.
- **Mathematics Club** – Open to students with interest in mathematics and have shown a level of proficiency in mathematics. The Math Club organizes community outreach activities such as tutoring services and fund-raising events.
- **Mathematics Tutorial Laboratories** – Open to students who need assistance in mathematics.



All persons desiring further information should contact:

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*Department
of
Mathematics, Physics and SMED
Bachelor's Degree Program
in Mathematics and Physics
with Math Concentration*

Dr. Katrina Cunningham

Assistant Professor and Program Leader



Baton Rouge, Louisiana