

---

## DEGREE REQUIREMENTS/OFFERINGS

---

To receive the BS or BS Ed degree, a student must maintain an overall GPA of at least 2.0 and at least 2.5 in all core mathematics or statistics and English courses. The total number of hours of coursework for the BS or BS Ed is at least 120 or 124 semester hours, respectively. In addition, to receive the BS Ed degree a student must be admitted to the Teacher Education Program which is sought through the College of Education and Human Development. Students interested in entering teacher education should see the Requirements for Admission to Teacher Education in this issue of the Jackson State University [Undergraduate Catalog](#) under the [College of Education and Human Development](#).

Detail information about the curriculum map and required coursework for each degree program is available on the Jackson State University [Undergraduate Catalog](#) website. Additionally, the Coordinator of Undergraduate Studies can be reached by phone at (601)979-2161 for further information and to answer all the questions you may have regarding the Bachelor's Degree programs in Mathematics, Mathematics Education and Statistics. When you log into the Undergraduate Catalog website, scroll all the way to the near bottom to locate the Department of Mathematics and Statistical Sciences. At the end of degree program's required major courses there is a link to Curriculum Map that takes you to the guideline for how you can register for classes each semester of study. Please follow this guide in consultation with the Department of Mathematics and Statistical Sciences coordinator of undergraduate studies.

Print a copy of the CURRICULUM SHEET and keep so that you can keep checking off the courses that you complete as you progress in the program year in and year out until you graduate. This will make your advising meetings with the Coordinator of Undergraduate Studies and your adviser more informative and shorter.

### **BACHELOR of SCIENCE in MATHEMATICS MAJOR REQUIREMENTS:**

<b>Course Number</b>	<b>Course Title</b>	<b>Credit Hours</b>
MATH 241	Calculus I with Laboratory	3
MATH 242	Calculus II with Laboratory	3
MATH 243	Calculus III with Laboratory	3
MATH 244	Calculus IV with Laboratory	3
MATH 303	Introduction to Set Theory & Logic I	3
MATH 311	Abstract Algebra I	3
MATH 321	Modern Geometry I	3
MATH 331	Linear Algebra & Matrix Theory	3
MATH 351	Advanced Calculus I	3
MATH 355	Probability & Statistics I	3
MATH 368	Differential Equations	3
MATH 403	Seminar in Mathematics	3
MATH 451	General Topology I	3
MATH ____	Mathematics Elective	3
MATH ____	Mathematics Elective	3
TOTAL	45	

### **Concentration-Specialization Courses:**

#### **Pure Mathematics:**

#### **Applied Mathematics:**

Algebra	Differential Equations
Analysis	Financial Mathematics
Complex Variables	Mathematical Modeling
Geometry	Numerical Analysis
Number Theory	Operations Research
Set Theory and Logic	Probability and Statistics

**BACHELOR of SCIENCE in EDUCATION in MATHEMATICS EDUCATION MAJOR REQUIREMENTS:**

Course Number	Course Title	Credit Hours
MATH 241	Calculus I with Laboratory	3
MATH 242	Calculus II with Laboratory	3
MATH 243	Calculus III with Laboratory	3
MATH 244	Calculus IV with Laboratory	3
MATH 303	Introduction to Set Theory & Logic I	3
MATH 311	Abstract Algebra I	3
MATH 321	Modern Geometry I	3
MATH 331	Linear Algebra & Matrix Theory	3
MATH 355	Probability & Statistics I	3
MATH 368	Differential Equations	3
MATH 402	Methods of Teaching Math in Sec. Schools	3
MATH 403	Seminar in Mathematics	3
MATH 493	History in Mathematics Classroom I	3
EDCI 100	Introduction to Education	3
SPED 311	Exceptional Children and Youth in School	3
SS 203	Historical & Cultural Foundations of Education	3
COUN 315	Human Growth & Development	3
EDCI 301	Classroom Management & Effective Learning Environments	3
ETEC 367	Introduction to Assessment, Measurement, and Evaluation	3
RE 310	Teaching Reading in Content Areas	3
EDCI 401	Unit Planning, Assessment, & Classroom Management	3
SS 301	Inquiry-Based Instruction in Geog & CE	3
EDCI 402	Clinical Internship in Student Teaching	12
TOTAL 78		

NOTE: Students must complete MATH 399 before enrolling in MATH 402.

**BACHELOR of SCIENCE in STATISTICS MAJOR REQUIREMENTS:**

Course Number	Course Title	Credit Hours
MATH 241	Calculus I with Laboratory	3
MATH 242	Calculus II with Laboratory	3
MATH 243	Calculus III with Laboratory	3
MATH 244	Calculus IV with Laboratory	3
MATH 271	Elementary Statistics	3
MATH 331	Linear Algebra & Matrix Theory	3
MATH 351	Advanced Calculus I	3
MATH 355	Probability & Statistics I	3
MATH 356	Probability & Statistics II	3
MATH 368	Differential Equations	3
STAT 272	Data Analysis	3

STAT 300	Regression Analysis	3
STAT 323	Nonparametric Statistics	3
STAT 350	Comp Stat & Data Management	3
STAT 357	Actuarial Science Exam 1 Prep	3
STAT 408	Time Series Analysis	3
STAT 414	Multivariate Data Analysis	3
STAT 418	Statistics Seminar	3
STAT 455	Experimental Design	3
TOTAL	57	

General electives must be taken with the consultation of the department academic advisor

### **Specialization Courses:**

#### Pure Mathematics:

MATH 311 Abstract Algebra I  
MATH 431 Real Analysis  
MATH 441 Complex Variables  
MATH 321 Modern Geometry  
MATH 341 Introduction to Number Theory  
MATH 451 General Topology  
MATH 332 Linear Algebra & Matrix Theory with Applications

#### Applied Mathematics:

MATH 415 Partial Differential Equations  
MATH 215 Financial Mathematics  
MATH 430 Mathematical Modeling  
MATH 385 Numerical Analysis  
MATH 466 Operations Research

#### Applied Statistics:

STAT 424 Internship in Statistics  
STAT 447 Sampling Methods  
MATH 461 Mathematical Statistics  
STAT 496 Independent Study  
STAT 301 Introduction to Experimental Design

### **ELEMENTARY EDUCATION MAJORS:**

Elementary Education majors who are seeking a content knowledge area in mathematics must complete the following courses: MATH 111, 112, 226, 227, 306, 401, and 493. Substitute courses must be approved by the Department of Mathematics and Statistical Sciences.

### **MINOR REQUIREMENTS**

The Mathematics or Statistics minor requires a minimum of 21 semester hours in Mathematics or Statistics coursework. Students seeking a minor in Mathematics must complete 12 credit hours with a minimum grade of "C" in each course of the Calculus Sequence and 9 semester hours of coursework in mathematics beyond the Calculus Sequence. Those seeking a minor in Statistics must complete MATH

241 and 18 semester hours of statistics or data analysis courses with the approval of the Department of Mathematics and Statistical Sciences.