

## Emphasis - Statistics

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### **B.S. in Mathematics** Description

The Department of Mathematics offers a B.S. in mathematics for students who wish to pursue graduate training in mathematics or to undertake careers in mathematically oriented professions. The B.S. degree allows the freedom to pursue mathematical depth in areas such as pure mathematics, applied mathematics, statistics, discrete mathematics, mathematics and computer science, or finance and actuarial science.

#### **Minimum Total Credit Hours: 120**

#### **General Education Requirements**

See the 'General Education/Core Curriculum' for the College of Liberal Arts.

#### **Course Requirements**

A major in mathematics for a B.S. degree consists of 42 hours of mathematics courses as indicated below, plus a computer programming class chosen from:

- Csci 111, 251, 256, or 259.

#### **Core Courses (24 hours)**

- Math 261-264: Calculus I-IV - 12 hours
- Math 305: Foundations - 3 hours
- Math 319: Linear Algebra - 3 hours
- Math 555: Advanced Calculus I - 3 hours
- Math 525: Modern Algebra I - 3 hours

#### **A two-course in-depth sequence**

- 555/556: Advanced Calculus I and II
- 525/526: Modern Algebra I and II
- 301/401: Discrete Math/Combinatorics
- 353/454: Elementary/Intermediate Differential Equations
- 375/475: Statistics

#### **Electives:**

300 level or above to reach the total of 42 credit hours of mathematics courses. The same mathematics course may satisfy more than one category, but students must still complete the total hours for the major.

#### **An optional emphasis in statistics requires three courses:**

- Math 375 – Introduction to Statistics I
- Math 380 – Statistical Computing and Data Analysis
- Math 475 – Introduction to Statistics II

#### **Other Academic Requirements**

Grades lower than C in mathematics courses will not be counted toward the mathematics major for the B.S. degree.

## **Emphasis - Statistics** Degree Requirements

The academic regulations for this degree program, as entered in the University of Mississippi Catalog, are in effect for the current or selected academic year and semester. The University of Mississippi reserves the right to 1) change or withdraw courses; 2) change rules for registration, instruction, and graduation; and 3) change other regulations affecting the student body at any time.

### **B.S. in Mathematics**

#### **General Education**

REQUIREMENT	HOURS	DESCRIPTION
First Year Writing I	3	Complete <a href="#">Hon 101</a> , <a href="#">Writ 100</a> or <a href="#">Writ 101</a> with a passing grade.
First Year Writing II	3	Complete one of the following courses with a passing grade: <a href="#">Liba 102</a> , <a href="#">Writ 102</a> or <a href="#">Hon 102</a> .
3 hrs fine arts	3	Complete 3 hours in the area of fine or performing arts. Choose from art history, music, dance, and theatre arts. Studio and workshop courses cannot be used to satisfy this requirement. Acceptable freshman or sophomore-level courses are: <a href="#">AH 101</a> , <a href="#">AH 102</a> , <a href="#">AH 201</a> , <a href="#">AH 202</a> ; Music 101, Music 102, Music 103, Music 104, Music 105; Dance 200; and Theatre 201.
6 hrs literature survey	6	Complete 6 hours of literature survey with a passing grade. Choose from the following courses: <a href="#">Eng 220</a> , <a href="#">221</a> , <a href="#">222</a> , <a href="#">223</a> , <a href="#">224</a> , <a href="#">225</a> , or <a href="#">Eng 226</a> .



REQUIREMENT	HOURS	DESCRIPTION
6 hrs modern/ancient language 200+	6	Successfully complete at least 6 hours at the 200 level or above in one modern or ancient language.
6 hrs social science	6	Successfully complete 6 semester hours in anthropology, economics, political science, psychology, or sociology.
6 hrs social science/humanities	6	Complete 6 hours of additional social science or humanities coursework. The courses may be chosen from African American studies, anthropology, classical civilization, economics, gender studies, history, <a href="#">Liba 202</a> , philosophy, political science, psychology, religious studies, <a href="#">Rhet 201</a> , sociology, and Southern studies.
6 hrs science	6	Successfully complete 2 courses of laboratory science.
2 science labs	8	Successfully complete at least two science laboratory courses.

### General Education II

REQUIREMENT	HOURS	DESCRIPTION
Related subjects residence	6	Students must complete at least 6 of the required 18 hours of related subject course work in residence.
Related subjects residence GPA		Student must achieve a GPA of 2.00 in resident hours in related subjects.
Related subjects	18	Complete at least 18 credit hours in the following areas: astronomy, biology, chemistry, computer science, economics, geology, or physics.
Related subject GPA		Student must achieve a GPA of 2.00 overall in the related subjects.

### Major Requirements

REQUIREMENT	HOURS	DESCRIPTION
Computer programming course	3	Students must complete a computer programming course choosing from <a href="#">CSci 111</a> , <a href="#">251</a> , <a href="#">256</a> , or <a href="#">259</a> .
<a href="#">Math 261</a> or <a href="#">271</a> - C min	3	Successfully complete <a href="#">Math 261</a> or <a href="#">Math 271</a> with a grade of C or better.
<a href="#">Math 262</a> - C min	3	Successfully complete <a href="#">Math 262</a> with a grade of C or better.
<a href="#">Math 263</a> - C min	3	Successfully complete <a href="#">Math 263</a> with a grade of C or better.
<a href="#">Math 264</a> - C min	3	Successfully complete <a href="#">Math 264</a> with a grade of C or better.
<a href="#">Math 305</a> - C min	3	Successfully complete <a href="#">Math 305</a> with a grade of C or better.
<a href="#">Math 319</a> - C min	3	Successfully complete <a href="#">Math 319</a> with a grade of C or better.
<a href="#">Math 525</a> C - min	3	Successfully complete <a href="#">Math 525</a> with a grade of C or better.
<a href="#">Math 555</a> - C min	3	Successfully complete <a href="#">Math 555</a> with a grade of C or better.
Two-course in-depth sequence	6	Successfully complete a two-course in-depth sequence chosen from: <a href="#">Math 555</a> & <a href="#">Math 556</a> , <a href="#">Math 525</a> & <a href="#">Math 526</a> ; <a href="#">Math 301</a> & <a href="#">Math 401</a> ; <a href="#">Math 353</a> & <a href="#">Math 454</a> ; <a href="#">Math 375</a> & <a href="#">Math 475</a> with a grade of C or better.
12-15 hrs add'l math courses	12	Complete 12 additional hours of upper-level Math courses. Each course must be completed with a grade of C or better to be counted toward the Math major.
42 total hours of Math	42	The same mathematics course may satisfy more than one category, but students must still complete the total hours for the major.
Math residency hrs	18	Students must earn at least 18 hours of their major courses in residence. Grades lower than a C in any Math course will not be counted towards the mathematics major for the BS degree.
Overall Major GPA		Please contact your academic advisor for grade point requirements.
Resident Major GPA		Please contact your academic advisor for grade point requirements.

### Emphasis - Statistics

REQUIREMENT	HOURS	DESCRIPTION
<a href="#">Math 375</a> - C min	3	Successfully complete <a href="#">Math 375</a> with a grade of C or better.
<a href="#">Math 380</a> - C min	3	Successfully complete <a href="#">Math 380</a> with a grade of C or better.
<a href="#">Math 475</a> - C min	3	Successfully complete <a href="#">Math 475</a> with a grade of C or better.

