












# MATHEMATICS, B.S.



 - General Education Course

 - Milestone course: a key success marker for your major. See your advisor to discuss the importance of this course in your plan of study.

The Core Curriculum is designed to foster critical thinking skills and introduce students to basic domains of thinking that transcend disciplines. The Core applies to all majors. Information on specific classes in the Core can be found at <https://www.marshall.edu/gened/>.

## Course Requirements

Code	Title	Credit Hours
<b>Core Curriculum</b>		
<i>Core 1: Critical Thinking</i>		
FYS 100	First Yr Sem Critical Thinking	3
MTH 229 	Calculus/Analytic Geom I (CT)	5
Critical Thinking Course		3
<i>Core 2</i>		
ENG 101 	Beginning Composition	3
ENG 201 	Advanced Composition	3
CMM 103 	Fund Speech-Communication	3
MTH 229 	Calculus/Analytic Geom I (CT)	5
Core II Natural/Physical Science		4
Core II Humanities		3
Core II Social Science		3
Core II Fine Arts		3
<i>Additional University Requirements</i>		
Writing Intensive		3
Writing Intensive		3
Multicultural or International		3
MTH 490 	Internship in Mathematics	2
or MTH 491 	Senior Seminar	
<b>College-Specific</b>		
COS Physical/Natural Science		4
COS Physical/Natural Science		3
<b>Major-Specific</b>		
CS 110	Computer Science I	3
MTH 229 	Calculus/Analytic Geom I (CT)	5
MTH 230 	Calculus/Analytic Geom II	4
MTH 231 	Calculus/Analytic Geom III	4
MTH 300	Intro to Higher Math	4
MTH 331	Linear Algebra	4
MTH 335	Ordinary Diff Equations	3
MTH 427	Advanced Calculus I	3
MTH 428	Advanced Calculus II	3
MTH 443	Numerical Analysis	3
STA 445	Probability & Statistics I	3
MTH 450	Modern Algebra I	3
MTH 452	Modern Algebra II	3


MTH 490 	Internship in Mathematics	2-12
or MTH 491 	Senior Seminar	
300/400 MTH or STA Elective		3
300/400 MTH or STA Elective		3
300/400 Elective		3
Free Elective		3
Free Elective		3
Free Elective		3
Free Elective		3
Free Elective		3
Free Elective		3
Free Elective		2

## Major Information

- Students who double-major in both Mathematics and Statistics may have an opportunity to double-count electives toward the respective majors. Please contact the director of undergraduate studies in the Mathematics department for more details.
- Please check with advisor about course offerings. Not all classes will be offered every semester.
- Forty (40) hours must be earned in courses numbered 300-499.

## Four Year Plan



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## Semester Plan

### First Year


First Semester		Credit Hours
FYS 100	First Yr Sem Critical Thinking	3
ENG 101 	Beginning Composition	3
MTH 229 	Calculus/Analytic Geom I (CT)	5
Core II Fine Arts		3
UNI 100	Freshman First Class	1
<b>Credit Hours</b>		<b>15</b>

### Second Semester

CS 110	Computer Science I	3
MTH 230 	Calculus/Analytic Geom II	4
Core I Critical Thinking		3
CMM 103 	Fund Speech-Communication	3
Core II Social Science		3
<b>Credit Hours</b>		<b>16</b>

### Second Year

First Semester		Credit Hours
MTH 231 	Calculus/Analytic Geom III	4

MTH 300	Intro to Higher Math	4
ENG 201 	Advanced Composition	3
Core II Physical/Natural Science		4

**Credit Hours 15**

#### Second Semester

MTH 331	Linear Algebra	4
MTH 335	Ordinary Diff Equations	3
COS Physical/Natural Science		4
Free Elective		3
Free Elective		1

**Credit Hours 15**

#### Third Year

##### First Semester

MTH 427	Advanced Calculus I	3
STA 445	Probability & Statistics I	3
Multicultural or International		3
COS Physical/Natural Science		3
Free Elective		3

**Credit Hours 15**

##### Second Semester

MTH 428	Advanced Calculus II	3
Writing Intensive		3
Core II Humanities		3
300/400 MTH or STA Elective		3
Free Elective		3

**Credit Hours 15**



#### Fourth Year

##### First Semester

MTH 443	Numerical Analysis	3
MTH 450	Modern Algebra I	3
Writing Intensive		3
300/400 Level Elective		3
Free Elective		3

**Credit Hours 15**

##### Second Semester

MTH 452	Modern Algebra II	3
MTH 490  or MTH 491 	Internship in Mathematics or Senior Seminar	2
300/400 MTH or STA Elective		3
Free Elective		3
Free Elective		3

**Credit Hours 14**

**Total Credit Hours 120**