## STATISTICS, B.S.

- General Education Course
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 <br> Hours |
| :--- | :--- |

## Core Curriculum

| Core 1: Critical Thinking |  |
| :--- | :--- | :--- |
| FYS 100 First Yr Sem Critical Thinking | 3 |
| MTH 229 Calculus/Analytic Geom I (CT) | 5 |
| Critical Thinking Course | 3 |

Core 2 Beginning Composition 101
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 $\quad 3$
Core II Fine Arts 3
Additional University Requirements
Writing Intensive
Writing Intensive 3

Multicultural or International 3
MTH 490 Internship in Mathematics (Capstone) 2
or MTH 491 Senior Seminar
*

## College-Specific

COS Physical/Natural Science 4

COS Physical/Natural Science 3
$\begin{array}{ll}\text { Major-Specific } & \\ \text { CS } 110 & \text { Computer Science I }\end{array}$
MTH 229 Calculus/Analytic Geom I (CT) 5
MTH 230 Calculus/Analytic Geom II 4
MTH 231 Calculus/Analytic Geom III 4
MTH $300 \approx$ Intro to Higher Math 4
MTH 331 Linear Algebra 4

MTH 490 Internship in Mathematics (C) 2

| or MTH 491 |  | Senior Seminar |
| :--- | :--- | :--- |
|  |  |  |
| STA 445 | Probability \& Statistics I | 3 |
| STA 446 | Probability \& Statistics II | 3 |
| STA 412 | Regression Analysis | 3 |
| STA 413 | Experimental Designs | 3 |


| MTH 427 | Advanced Calculus I | 3 |
| :--- | :--- | :--- |
| STA 420 | Nonparametric Statistics | 3 |
| STA 435 | Statistical Data Mining | 3 |
| $300 / 400$ MTH or STA Elective | 3 |  |
| $300 / 400$ MTH or STA Elective | 3 |  |
| 300/400 Level Elective | 3 |  |
| Free Elective | 4 |  |
| Free Elective | 3 |  |
| Free Elective | 3 |  |
| Free Elective | 3 |  |
| Free Elective | 3 |  |
| Free Elective | 3 |  |

## 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.
*-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.


## Four Year Plan

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 | $\mathbf{1}$ |
|  | Credit Hours | $\mathbf{1 5}$ |

## Second Semester

MTH 230 Calculus/Analytic Geom II 4
Core I Critical Thinking
CMM 103 Fund Speech-Communication 3
CS 110 Computer Science I 3
Core II Social Science $\quad 3$

Credit Hours13

## Second Year

First Semester

| MTH 231 | 4 |  |
| :--- | ---: | ---: |
| MTH 300 | Intro to Higher Math | 4 |
| ENG 201 | 3 |  |
| Core II Physical/Natural Science | $\mathbf{4}$ |  |
| Credit Hours | $\mathbf{1 5}$ |  |


| Second Semester |  |  |
| :---: | :---: | :---: |
| MTH 331 | Linear Algebra | 4 |
| 300/400 Level Elective |  | 3 |
| Free Elective |  | 4 |
| Physical/Natural Science Elective |  | 4 |
| Credit Hours |  | 15 |
| Third Year |  |  |
| First Semester |  |  |
| MTH 427 | Advanced Calculus I | 3 |
| STA 445 | Probability \& Statistics I | 3 |
| Physical/Natural Science Elective |  | 3 |
| Multicultural or International Elective |  | 3 |
| Free Elective |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| Humanities Elective |  | 3 |
| Writing Intensive Elective |  | 3 |
| STA 446 | Probability \& Statistics II | 3 |
| 300/400 MTH or STA Elective |  | 3 |
| Free Elective |  | 3 |
|  | Credit Hours | 15 |
| Fourth Year |  |  |
| First Semester |  |  |
| STA 412 | Regression Analysis | 3 |
| STA 435 | Statistical Data Mining | 3 |
| 300/400 MTH or STA Elective |  | 3 |
| Writing Intensive |  | 3 |
| Free Elective |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| STA 413 | Experimental Designs | 3 |
| STA 420 | Nonparametric Statistics | 3 |
| $\begin{aligned} & \text { MTH } 490 \\ & \text { or MTH } 491 \end{aligned}$ | Internship in Mathematics or Senior Seminar | 2 |
| Free Elective |  | 3 |
| Free Elective |  | 3 |
|  | Credit Hours | 14 |
|  | Total Credit Hours | 117 |

