

**College of Science and Mathematics**

**Department: Mathematics and Statistics**

**Undergraduate Program: Dual Degree, B.A. in Mathematics**

| Current  |              |
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|  | Hours        |
| <b>I. Required Courses</b>   | 27-29<br>Hrs |
| MTH 229 Calculus I   |              |
| MTH 230 Calculus II  |              |
| MTH 231 Calculus III   |              |
| MTH 255 Linear Algebra   |              |
| MTH 355 Advanced Linear Algebra  |              |
| <u>At least two (2) of the following courses:</u>  |              |
| MTH 431 Real Variables I   |              |
| MTH 432 Real Variables II  |              |
| MTH 451 Intro to Modern Algebra I  |              |
| MTH 452 Intro to Modern Algebra II   |              |
| MTH 457 Combinatorics  |              |
| MTH 458 Applied Graph Theory   |              |
| STT 461 Theory of Statistics I   |              |
| STT 462 Theory of Statistics II  |              |
| <b>II. Departmental Electives</b>  | 26-28<br>Hrs |
| <u>Choose additional courses, from the list below, to total 55 credit hours (including MTH 229 and 230):</u> |              |
| MTH 232 Calculus IV  |              |
| MTH 233 Differential Equations   |              |
| MTH 280 Intro to Mathematical Proof  |              |
| MTH 306 Mathematical Modeling  |              |
| MTH 381 Number Theory  |              |
| MTH 410 Theoretical Found of Comp  |              |
| MTH 419 Cryptography & Data Sec  |              |
| MTH 431 Real Variables I   |              |
| MTH 432 Real Variables II  |              |
| MTH 433 Real Variables III   |              |
| MTH 440 History of Mathematics   |              |
| MTH 451 Intro to Modern Algebra I  |              |
| MTH 452 Intro to Modern Algebra II   |              |
| MTH 456 Coding Theory  |              |
| MTH 457 Combinatorics  |              |
| MTH 458 Applied Graph Theory   |              |
| MTH 471 Geometry   |              |
| MTH 492 Undergraduate Math Seminar (WI)  |              |
| STT 360 Applied Statistics I; <b>OR</b>  |              |
| STT 363 Engineering Statistics   |              |
| STT 361 Applied Statistics II  |              |
| STT 461 Theory of Statistics I   |              |
| STT 462 Theory of Statistics II  |              |
| STT 466 Statistical Methods I  |              |
| STT 467 Statistical Methods II   |              |

| New  |               |
|--|---------------|
|  | Hours         |
| <b>I. Required Courses</b>   | 27-29<br>Hrs. |
| MTH 229 Calculus I   |               |
| MTH 230 Calculus II  |               |
| MTH 231 Calculus III   |               |
| MTH 255 Linear Algebra   |               |
| MTH 355 Advanced Linear Algebra  |               |
| <u>At least two (2) of the following courses:</u>  |               |
| MTH 431 Real Variables I   |               |
| MTH 432 Real Variables II  |               |
| MTH 451 Intro to Modern Algebra I  |               |
| MTH 452 Intro to Modern Algebra II   |               |
| MTH 457 Combinatorics  |               |
| MTH 458 Applied Graph Theory   |               |
| STT 461 Theory of Statistics I   |               |
| STT 462 Theory of Statistics II  |               |
| <b>II. Departmental Electives</b>  | 26-28<br>Hrs  |
| <u>Choose additional courses, from the list below, to total 55 credit hours (including MTH 229 and 230):</u> |               |
| MTH 232 Calculus IV  |               |
| MTH 233 Differential Equations   |               |
| MTH 280 Intro to Mathematical Proof  |               |
| MTH 306 Mathematical Modeling  |               |
| MTH 314 Introduction to Mathematical Software  |               |
| MTH 381 Number Theory  |               |
| MTH 410 Theoretical Found of Comp  |               |
| MTH 415 Introduction to Scientific Computation   |               |
| MTH 419 Cryptography & Data Sec  |               |
| MTH 431 Real Variables I   |               |
| MTH 432 Real Variables II  |               |
| MTH 433 Real Variables III   |               |
| MTH 440 History of Mathematics   |               |
| MTH 451 Intro to Modern Algebra I  |               |
| MTH 452 Intro to Modern Algebra II   |               |
| MTH 456 Coding Theory  |               |
| MTH 457 Combinatorics  |               |
| MTH 458 Applied Graph Theory   |               |
| MTH 471 Geometry   |               |
| MTH 492 Undergraduate Math Seminar (WI)  |               |
| STT 360 Applied Statistics I; <b>OR</b>  |               |
| STT 363 Engineering Statistics   |               |
| STT 361 Applied Statistics II  |               |
| STT 461 Theory of Statistics I   |               |
| STT 462 Theory of Statistics II  |               |
| STT 466 Statistical Methods I  |               |
| STT 467 Statistical Methods II   |               |