

## College of Science and Mathematics

**Department: Mathematics and Statistics**

**Undergraduate Program: B.S. Mathematics – Pure Math Concentration**

Current	Hours
<b>I. Required Courses</b> MTH 229 Calculus I MTH 230 Calculus II MTH 231 Calculus III MTH 232 Calculus IV MTH 233 Differential Equations MTH 255 Linear Algebra MTH 280 Intro to Math. Proof (WI) MTH 355 Advanced Linear Algebra MTH 431 Real Variables I MTH 432 Real Variables II MTH 433 Real Variables III MTH 451 Intro to Modern Algebra I MTH 452 Intro to Modern Algebra II MTH 492 Math Seminar (WI)	52 Hrs
<b>II. Departmental Electives (Choose 21 Hours)</b> MTH 306 Mathematical Modeling MTH 316 Numerical Methods I MTH 317 Numerical Methods II MTH 332 Complex Variables MTH 333 Partial Differential Equations MTH 381 Number Theory MTH 407 Optimization Techniques MTH 410 Theoretical Fnds of Computing MTH 419 Cryptography & Data Security MTH 456 Coding Theory MTH 457 Combinatorics MTH 458 Applied Graph Theory MTH 471 Geometry MTH 480 Appl Math:Geometric Mthds MTH 481 Appl Math:Differential Eqs MTH 482 Appl Math:Integral Methods STT 360 Applied Statistics I STT 361 Applied Statistics II STT 461 Theory of Statistics I STT 462 Theory of Statistics II	21 Hrs
<b>III. Related Course Requirements</b> CS 141 Programming I CS 142 Programming II; or CS 240 Computer Science I	8 Hrs.

New	Hours
<b>I. Required Courses</b> MTH 229 Calculus I MTH 230 Calculus II MTH 231 Calculus III MTH 232 Calculus IV MTH 233 Differential Equations MTH 255 Linear Algebra MTH 280 Intro to Math. Proof (WI) MTH 355 Advanced Linear Algebra MTH 431 Real Variables I MTH 432 Real Variables II MTH 433 Real Variables III MTH 451 Intro to Modern Algebra I MTH 452 Intro to Modern Algebra II MTH 492 Math Seminar (WI)	52 Hrs.
<b>II. Departmental Electives (Choose 21 Hours)</b> MTH 306 Mathematical Modeling MTH 314 Introduction to Mathematical Software MTH 316 Numerical Methods I MTH 317 Numerical Methods II MTH 332 Complex Variables MTH 333 Partial Differential Equations MTH 381 Number Theory MTH 407 Optimization Techniques MTH 410 Theoretical Fnds of Computing MTH 415 Introduction to Scientific Computation MTH 419 Cryptography & Data Security MTH 456 Coding Theory MTH 457 Combinatorics MTH 458 Applied Graph Theory MTH 471 Geometry MTH 480 Appl Math:Geometric Mthds MTH 481 Appl Math:Differential Eqs MTH 482 Appl Math:Integral Methods STT 360 Applied Statistics I STT 361 Applied Statistics II STT 461 Theory of Statistics I STT 462 Theory of Statistics II	21 Hrs
<b>III. Related Course Requirements</b> CS 141 Programming I CS 142 Programming II; or CS 240 Computer Science	8 Hrs