

College of Science and Mathematics

Department: Mathematics and Statistics

Undergraduate Program: Dual Degree, B.S. in Mathematics

Current		New	
	Hours		Hours
I. Required Courses MTH 229 Calculus I MTH 230 Calculus II MTH 231 Calculus III MTH 232 Calculus IV 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 MTH 480 Appl Math: Geometric Methods MTH 481 Appl Math: Differential Equations MTH 482 Appl Math: Integral Methods STT 461 Theory of Statistics I STT 462 Theory of Statistics II	32-34 Hrs	I. Required Courses MTH 229 Calculus I MTH 230 Calculus II MTH 231 Calculus III MTH 232 Calculus IV 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 MTH 480 Appl Math: Geometric Methods MTH 481 Appl Math: Differential Equations MTH 482 Appl Math: Integral Methods STT 461 Theory of Statistics I STT 462 Theory of Statistics II	32-34 Hrs.
II. Departmental Electives <u>Choose additional courses, from the list below, to total 55 credit hours (including MTH 229 and 230):</u> MTH 233 Differential Equations MTH 280 Intro to Mathematical Proof 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 419 Cryptography & Data Sec 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 456 Coding Theory MTH 457 Combinatorics MTH 458 Applied Graph Theory MTH 480 Appl Math: Geometric Methods MTH 481 Appl Math: Differential Equations MTH 482 Appl Math: Integral Methods MTH 492 Undergraduate Math Seminar (WI) STT 360 Applied Statistics I; OR 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	21-23 Hrs	II. Departmental Electives <u>Choose additional courses, from the list below, to total 55 credit hours (including MTH 229 and 230):</u> MTH 233 Differential Equations MTH 280 Intro to Mathematical Proof 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 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 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 480 Appl Math: Geometric Methods MTH 481 Appl Math: Differential Equations MTH 482 Appl Math: Integral Methods MTH 492 Undergraduate Math Seminar (WI) STT 360 Applied Statistics I; OR 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	21-23 Hrs

