

BS in Applied Mathematics

Freshman Year		Sophomore Year		Junior Year		Senior Year	
Semester 1	Semester 2	Semester 1	Semester 2	Semester 1	Semester 2	Semester 1	Semester 2
ENC 1101 English Composition 1 (3,W)	MHF 1407 Explorations in Mathematics (3)	MAD 2104 Discrete Mathematics (3)	MAS 3105 Linear Algebra (3)	MAA 4102 Introduction to Real Analysis (3)	MAP 4341 Applied Partial Differential Equations (3)	MAT 4910 Applied Mathematics Capstone 1 (3)	MAT 4911 Applied Mathematics Capstone 2 (3)
COP 2271 Intro to Computation & Programming (3)	COP 3337 Object Oriented Programming (3)	MAP 2250 Mathematical Technology (1)	MHF 3302 Logic & Proof in Mathematics (3)	MAD 3401 Numerical Analysis (3) or MAP 3253 Mathematical Scientific Computation (3)	STA 3033 Advanced Probability & Statistics (3)	Math Elective Upper Division (3)	Math Elective Upper Division (3)
MAC 2311 Analytic Geometry and Calculus 1 (4)	MAC 2312 Analytic Geometry and Calculus 2 (4)	MAC 2313 Analytic Geometry and Calculus 3 (4)	MAP 2302 Differential Equations (3)	STA 3032 Probability & Statistics (3)	MAP 4413 Fourier Analysis with Applications or MAP 4202 Optimization or MAP 4314 Dynamical Systems or MAA4402 Complex Variables (3)	Math Elective Upper Division (3)	Arts and Humanities or Soc. Sciences Option (3)
CHM 2045 (3)	PHY 2048 Physics 1 (3)	PHY 2049 Physics 2 (3)	Arts and Humanities or Soc. Sciences Option (3)	MAT 3930 Applied Math Seminar (1)	Social Science Required Course (Civic Literacy Recommended) (3)	General Elective (3)	General Elective (3)
CHM 2045L (1)	PHY 2048L Physics 1 Lab (1)	PHY 2049L Physics 2 Lab (1)	CHM 2046 or BSC 1010 or 1011 or EVR 2001 (3)	Interdisciplinary Area Course Elective (3)	Interdisciplinary Area Course Elective (3)	Interdisciplinary Area Course Elective (3)	Interdisciplinary Area Course Elective (3)
	ENC 2210 Technical Writing (3,W)	Arts and Humanities Required Course (3)	CHM 2046L or BSC 1010L or 1011L or EVR2001L (1)		IDS 4941 Professional Exp. Internship (0)		

Legend:

Course Prefix & Number Course Name Credits	General Education Elective Credits	Program or Concentration Elective Credits
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C grade or better is required



Advanced Mathematics Course Lists

Math Elective Courses

12 credit hours at the 3000 - 4000 level required.

- MTG 4302 - Elements of Topology 1 Credits: 3
- MTG 4303 - Elements of Topology II Credits: 3
- MAP 4484 - Mathematical Modeling in Biology I Credits: 3
- MAP 4494 - Mathematical Modeling in Biology II Credits: 3
- MAP 3305 - Engineering Mathematics 1 Credits: 3
- MAP 3930 - Special Topics - Applied Mathematics Credits: 3
- MAP 4202 - Optimization Theory Credits: 3
- MAP 4306 - Engineering Mathematics II Credits: 3
- MAP 4413 - Fourier Analysis with Applications Credits: 3
- MAP 4314 - Dynamical Systems Credits: 3
- MAD 3105 - Discrete Mathematics II Credits: 3
- MAP4103 – Mathematical Modeling Credits: 3

General Education

Arts & Humanities

Select 3 to 9 credits from the following courses:

Required, one from the following:

- ARH 2000 Art Appreciation (W)
- HUM 2020 Introduction to Humanities (W)
- LIT 2000 Introduction to Literature (W)
- PHI 2010 Introduction to Philosophy (W)
- MUL 2010 Music Appreciation

Optional, one (1) from the following OR one more from Arts & Humanities required or Social Sciences:

- IDS 2144 Legal, Ethical, and Management Issues in Technology

Social Sciences

Select 3 to 9 credits from the following courses:

Required, one from the following:

- AMH 2020 American History Since 1877 (W-Civic Literacy)
- AMH 2010 American History to 1877 (W)-Civic Literacy)
- POS 2041 American Government (Civic Literacy)
- ECO 2013 Principles of Macroeconomics (W)
- PSY 2012 General Psychology (W)

Optional, one (1) from the following OR one more from Social Science required or Arts and Humanities:

- ECO 2023 Principles of Microeconomics (W)

Interdisciplinary Elective Courses

12 credit hours generally at the 3000-4000 level from a department outside of Applied Mathematics subject to department approval.

General Elective Courses

6 credit hours at any level and from any department.