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
EGN 1006 Career Design for STEM Disciplines (1)	EGN 1007 Concepts and Methods for Eng. & CS (1)	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)
IDS 1380 Foundational Lessons in Applications of MathEmatics 3)	COP 2271 Introduction to Computation and Programming (3)	COP 2034 Intro to Programming Using Python (3) **or** COP 3337 Object Oriented Programming (3) **or** ISC 2310 Python for Data Analytics	MHF 3302 Logic & Proof in Mathematics (3)	MAD 3401 Numerical Analysis (3) or MAP 3253 Mathematical Scientific Computation (3)	MAP 4102 Applied Probability (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)
IB or C in MAC 1147 or higher, AP for MAC 2311	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 3162 Applied Statistics	Math Elective Upper Division (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 Required Course (3)	Social Science Required Course (Civic Literacy Recommended) (3)	Arts and Humanities or Soc. Sciences Option (3)	General Elective (3)	General Elective (3)
	CHM 2045L (1)	PHY 2048L Physics 1 Lab (1)	PHY 2049L Physics 2 Lab (3)	CHM 2046 **or** BSC 1010 **or** 1011 **or** EVR 1001 (3)	Interdisciplinary Area Course Elective (3)	Interdisciplinary Area Course Elective (3)	Interdisciplinary Area Course Elective (3)	Interdisciplinary Area Course Elective (3)
	ENC 1101 English Composition 1 (3,W)	ENC 2210 Technical Writing (3,W)		CHM 2046L **or** BSC 1010L **or** 1011L **or** EVR1001L (1)	IDS 4941 Professional Exp. Internship (0)			

Legend:
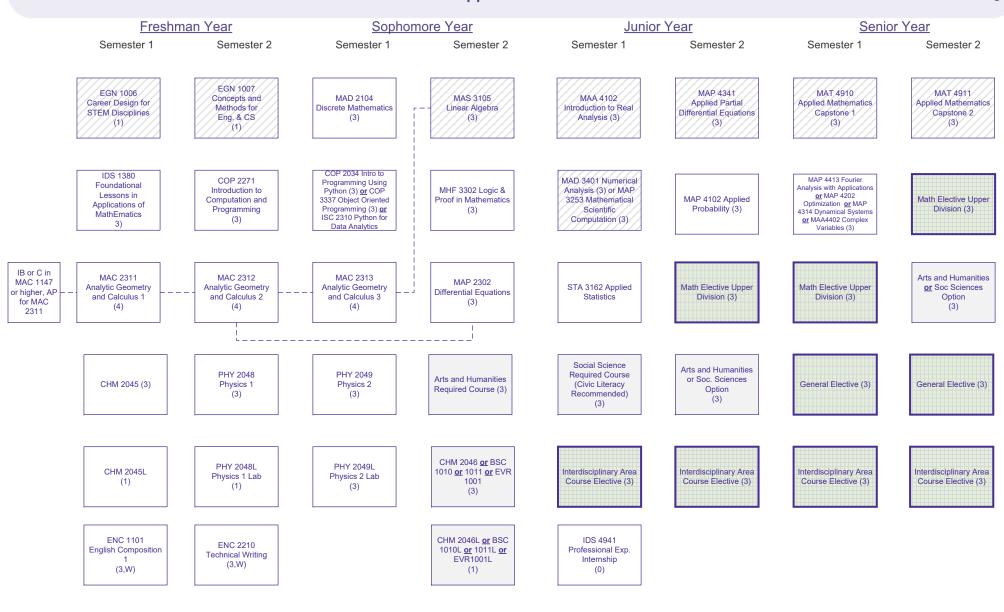
Course Prefix & Number | Course Name | Credits	Florida Poly Experience Sequence Course Prefix & Number | Course Name | Credits	General Education Elective | Credits	Program or Concentration Elective | Credits	---------- C grade or better is required

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
- MAS 3114 - Computational Linear Algebra 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 4413 - Fourier Analysis with Applications Credits: 3
- MAP 4306 - Engineering Mathematics II Credits: 3
- MAP 4314 - Dynamical Systems Credits: 3
- MAD 3105 - Discrete Mathematics II 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:

- HUM 2022 Explorations in the Humanities (W)
- 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)
- 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:

- AMH 2010 American History to 1877 (W)
- AMH 2930 Special Topics (W)
- 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.