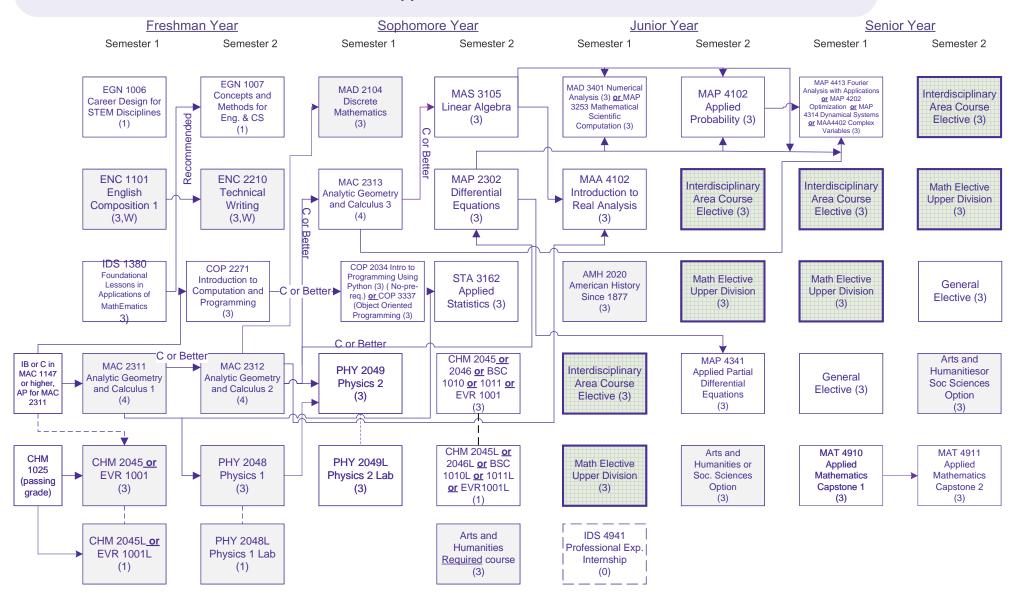
## **BS** in Applied Mathematics



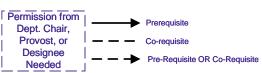


# Legend:

Course Number
Course Name
(credit,
requirement met)

Concentration
Elective

General
Education or
Technical
Elective



### **Advanced Mathematics Course Lists**

### **Upper Division Math Elective Courses**

- STA 3032 Probability and Statistics | Pre-req: MAC 2312 (grade of C or higher)
- STA 3036 Probability and Statistics for Business, Data Science, and Economics | Pre-reg: STA 2023, MAC 2311, COP 2073
- STA 3241 Statistical Learning | Pre-req: STA 3036 or (MAS 3114 and STA 3032)
- STA 4853 Time Series Analysis for Business, Data Science, and Economics | Pre-reg: STA 3036
- MTG 4302 Elements of Topology 1 | Pre-req: MAS 3105
- MTG 4303 Elements of Topology 2 | Pre-req: MTG 4302
- MAS 3114 Computational Linear Algebra | Pre-req: MAC 2312
- MAP 4484 Mathematical Modeling in Biology I | Pre-reg: MAP 2302 and MAS 3105
- MAP 4494 Mathematical Modeling in Biology II | Pre-req: MAP 4484
- MAP 3305 Engineering Mathematics 1 | Pre-req: MAC 2312, MAC 2254, or MAC 2282
- MAP 3930 Special Topics Applied Mathematics | Pre-req: Department chair and instructor approval
- MAP 4306 Engineering Mathematics II | Pre-req: MAP 3305
- MAP 4314 Dynamical Systems | Pre-reg: MAC 2313, MAP 2302, and MAS 3105
- MAD 3105 Discrete Mathematics II | Pre-reg: MAD 2104

### General Education & Electives

#### **Arts & Humanities**

Select 3 to 6 credits from the following courses: Required, one from the following:

- ARH 2000 Art Appreciation (3-W)
- HUM 2020 Introduction to Humanities (3-W, ENC 1101)
- LIT 2000 Introduction to Literature (3-W, ENC 1101)
- PHI 2010 Introduction to Philosophy (3-W)
- MUL 2010 Music Appreciation (3)

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

- HUM 2022 Explorations in the Humanities (3-W)
- IDS 2144 Legal, Ethical, and Management Issues in Technology (3)

#### **Social Sciences**

Select 3 to 6 credits from the following courses. Three credits must come from a History course.

Required, one from the following:

- AMH 2020 American History Since 1877 (3-W-Civic Literacy)
- ECO 2013 Principles of Macroeconomics (3-W)
- PSY 2012 General Psychology (3-W)

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

- AMH 2010 American History to 1877 (3-W)
- AMH 2930 Special Topics (1 to 3-W)
- ECO 2023 Principles of Microeconomics (3-W)

**Total Program Credits: 120** 

