

# ACADEMIC ROADMAP

## B.A. Mathematics

### Freshman Year (28 credits)

#### FIRST SEMESTER

Course Title	Catalog Number	Prerequisite(s)
College Writing I (3)	CWP 101	
Calculus I (4)	MAT161	MAT124 or HS equivalent
Using Technology to Explore Calculus (1)	MAT163	
IF Art (3)		
IF Humanities (3)		

#### SECOND SEMESTER

Course Title	Catalog Number	Prerequisite(s)
College Writing II (3)	CWP 102	CWP101
Calculus II (4)	MAT162	MAT161
Using Technology to Explore Calculus (1)	MAT164	MAT163
IF Social Science (3)		
IF Natural Science (3)		

#### Notes and recommendations:

Both semesters need to total at least 14 credit hours.

### Sophomore Year (60 credits)

#### THIRD SEMESTER

Course Title	Catalog Number	Prerequisite(s)
Calculus III (4)	MAT263	MAT162
Using Technology to Explore Calculus (1)	MAT264	MAT164
Discrete Math (3)	MAT270	MAT161
IF Western Civilization (3)		
Open Elective (towards a minor) (3)		
Open Elective (towards a minor) (3)		

#### FOURTH SEMESTER

Course Title	Catalog Number	Prerequisite(s)
Intro to Linear Algebra (3)	MAT202	MAT161
Techniques of Proof (3)	MAT300	MAT270
Open Elective (towards a minor) (3)		
Open Elective (towards a minor) (3)		
IF Non-Western Civilization (3)		

#### Notes and recommendations:

One semester should total 17 credits, the other 15 credits

**Junior Year (90 credits)**

## FIFTH SEMESTER

Course Title	Catalog Number	Prerequisite(s)
Probability (3)	MAT381	MAT 162 and MAT270
Upper Div. Math Elective (3)		Check pre-requisites
Open Elective (towards a minor) (3)		
Open Elective (towards a minor) (3)		
IF American History (3)		

## SIXTH SEMESTER

Course Title	Catalog Number	Prerequisite(s)
Fundamentals of Abstract Algebra (3)	MAT301 <sup>1</sup>	MAT300
Upper Div. Math Elective (3)		Check pre-requisites
Open Elective (towards a minor) (3)		
Open Elective (towards a minor) (3)		
Open Elective (towards a minor) (3)		

**Notes and recommendations:**

<sup>1</sup>MAT301 offered spring semester only. Both semesters should total 15 credit hours.

**Senior Year (120 credits)**

## SEVENTH SEMESTER

Course Title	Catalog Number	Prerequisite(s)
Intro to Real Analysis (3)	MAT417 <sup>2</sup>	MAT263 & MAT300
Upper Div. Math Elective (3)		Check pre-requisites
Open Elective (towards a minor) (3)		
Open Elective (towards a minor) (3)		
Open Elective (towards a minor) (3)		

## EIGHTH SEMESTER

Course Title	Catalog Number	Prerequisite(s)
Complex Variables (3)	MAT411 <sup>3</sup>	MAT263
Capstone Research in Math (3)	MAT491 <sup>4</sup>	MAT301 or MAT417
Upper Div. Math Elective (3)		Check pre-requisites
Open Elective (towards a minor) (3)		
Open Elective (towards a minor) (3)		

**Notes and recommendations:**

<sup>2</sup> MAT417 offered fall semester only. <sup>3,4</sup> MAT411 and MAT491 offered spring semester only. Both semesters should total 15 credit hours.