

**MATHEMATICS - Basic Option – BS (122 hours)**

**Effective 2015-2020**

<b>NAME</b>	<b>PID</b>	<b>Optional 2<sup>nd</sup> Major or Minor</b>
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**FOUNDATIONS**

English Comp. and Rhetoric	Foreign Language*		Quant. Reas. (QR)	Lifetime Fitness (LFIT)
	1.	3.	MATH 231	(1 hr.)
	2.	4.		

\* Through Level 3

**APPROACHES**

Phys. and Life Sciences (PX/PL)	Social and Behavioral Sciences**	Humanities/Fine Arts
	Hist. Analysis (HS):	Vis. & Perf. Arts (VP):
PHYS 104 or 114 or 116 or 118 †	Soc.Sci./Hist. Analysis (SS/HS):	Literary Arts (LA):
	Soc.Sci./Hist. Analysis (SS/HS):	Phil. Reasoning (PH):

\*\*From at least two departments

**CONNECTIONS**

Communication Int. (CI)	Quant. Int. (QI) or 2nd Quant. Reas. (QR)	Experiential Ed. (EE)	Global Issues (GL)
	MATH 232		
US Diversity (US)	North Atlantic World (NA)	World before 1750 (WB)	Beyond the NA (BN)

**MAJOR/MINOR/ELECTIVES**

ADDITIONAL REQUIREMENTS	MATHEMATICS ♦ Core Courses (10 Courses)			
MATH 231	COMP 110 or COMP 116			
MATH 232				
MATH 233	MATH 381**			
PHYS 104 or 114 or 116 or 118 †	MATH 383			
PHYS 105 or 117 †	MATH 521			
Natural Sciences (##)	MATH 347/547* or 577 (preferably before JR year)			
	One of MATH 522, 523, 528, or 566			
1.				
2.	One of MATH 533, 534, 548, or 578			
3.	(#)			
4.	(#)			
* Linear Algebra is now MATH 347. Was MATH 547 prior to Fall 2020.	(#)			

18 hours ≥ C (not C-) required in MATH courses numbered above 520. COMP 110, 116, MATH 381 and 383 may not count toward hours of C.  
 (#) Three courses in MATH numbered above 520, excluding 528L and 529L.  
 (##) Four courses in the Division of Natural Sciences and Mathematics (beyond the General Education requirements), but not taken in the Math department.  
 † If taking PHYS 104, must also take PHYS 105; if taking PHYS 116, must also take PHYS 117. PHYS 114 and 118 don't require an additional PHYS course. PHYS 118 recommended.  
 \*\*A current/former major statistics and analytics (mathematical decision sciences) may substitute STOR 215 for MATH 381.

Remaining courses after this term:	Hours to be deducted:	Hours Tally:	Notes:
___ Foundations	Repeated courses	Hours to date:	
___ Approaches	HSFL	Hours in progress	
___ Connections	Online courses > 24	Pending Study Abroad*	
___ Supplemental	Other	Subtotal	
___ (hrs C___)	Professional School > 30	Hours deducted	
___ (hrs C___)	Hours in subject (BA) > 45	Hours after this term	
___ (hrs C___)	Total	Hours remaining to grad	
Requirements subtotal		Semesters left	
<b>Total</b>			

\*Pending study abroad hours may differ from hours earned.

This tally assumes successful completion of presently enrolled courses (not AB or IN), and it does not account for all possible overlaps

## Graduate and Career Opportunities

### **B.A. or B.S. degree with a major in mathematics, suggestions for pure mathematics:**

These courses provide a solid theoretical understanding of central mathematics and excellent preparation for graduate study in mathematics or the mathematical sciences.

- MATH 521 and 522
- MATH 577 and 578
- Enough upper-level mathematics courses to satisfy the degree requirements

Those planning graduate study in mathematics or the mathematical sciences may consider taking some of MATH 653, 676, 680, or subsequent courses.

### **B.S. degree with a major in mathematics, suggestions for mathematical biology:**

For students interested in careers or further study in mathematical life sciences.

- BIOL 101 and CHEM 101 or CHEM 102
- At least one of BIOL 201, 202, 205
- At least two of BIOL 454, 526, 551, 553
- MATH 521
- One of MATH 522, 523, 528, 566
- One of MATH 534, 548, 578
- MATH 347/547\* or 577
- Three or more mathematics courses numbered above 500. Consider especially MATH 524, 529, 535, and 564

### **B.A. degree with a major in mathematics, suggestions for mathematical economics:**

Suitable for students planning to go on to graduate school in economics or a related area, or pursue a career in economics, business, or finance. *Note: With three more ECON courses numbered above 400, the requirements for the B.A. in economics could also be satisfied.*

- ECON 101, 410, 420
- At least two of ECON 510, 511, 520, 570
- MATH 521
- At least three of MATH 522, 524, 535, 550, 555, 564, 565
- Either MATH 535/STOR 435 and STOR 555, or ECON 400 and 570
- MATH 347/547\* or 577

### **B.A. degree with a major in mathematics, suggestions for future high school teachers:**

- MATH 231 or 241, 232 or 283, 233, 381, and 383
- At least one of MATH 515, 534, 535, 548, 550
- MATH 521
- MATH 533
- MATH 347/547\* or 577
- MATH 551
- STOR 155
- The Supplemental General Education requirement
- Eighteen hours of C or better (not C-) in MATH 233, 381, 383, or MATH courses numbered above 500