



**Bachelor of Science in Mathematics (MATH)**

**Major Electives**

Code	Title	Credits	Prerequisites	Corequisites
	Elective	3		
	Elective	3		
Total		6		

**Core Requirements**

Code	Title	Credits	Prerequisites	Corequisites
CSCI250	Introduction to Programming	3	CSCI200	ENGL101 - CSCI250L
CSCI250L	Introduction to Programming Lab	1	CSCI200	ENGL101 - CSCI250
MATH210	Calculus II	3	MATH161 - MATH160	
MATH220	Calculus III	3	MATH210	
MATH225	Linear Algebra with Applications	3	ENGL051 - MATH161	
MATH260	Discrete Mathematics	3	MATH225	MATH260L
MATH260L	Discrete Mathematics Lab	1	MATH225	MATH260
MATH270	Ordinary Differential Equations	3	MATH210	MATH225
MATH305	Programming Languages for Scientist	3	MATH260	
MATH310	Probability & Statistics for Scientists & Engineers	3	MATH210 - ENGL201	
MATH330	Partial Differential Equations	3	MATH270	
MATH345	Introduction to Real Analysis	3	MATH270 - MATH220	
MATH375	Numerical Methods for Scientists & Engineers	3	ENGL051 - MATH270 - MATH225	
MATH380	Complex Variables	3	MATH220	
PHYS210	Mechanics	3	PHYS161 - MATH161 - PHYS160 - MATH160 - ENGL051	
PHYS250	Thermodynamic and Waves	3	PHYS161 - MATH161 - ENGL051 - MATH160 - PHYS160	
PHYS280	Electricity and Magnetism	3	PHYS210 - MATH161 - MATH160	

PHYS360	Analytical Mechanics	3	PHYS210 - MATH270 - MATH220	PHYS250
Total		50		

### Major Requirements

Code	Title	Credits	Prerequisites	Corequisites
MATH315	Advanced Linear Algebra	3	MATH225	
MATH365	Abstract Algebra	3	MATH315	
MATH385	Introduction to Topology	3	MATH345	
MATH405	Number Theory	3	MATH315	
MATH420	Differential Geometry	3	MATH345	
MATH455	Mathematical Analysis	3	MATH345	
MATH490	Modern Topics in Algebra	3	MATH365	
MATH492	Mathematical Seminar	1	MATH385	
Total		22		

### General Education Requirements

Code	Title	Credits	Prerequisites	Corequisites
ARAB200	Arabic Language and Literature	3		
CSCI200	Introduction to Computers	3	ENGL051	
CULT200	Introduction to Arab - Islamic Civilization	3		
ENGL201	Composition and Research Skills	3	ENGL151	
ENGL251	Communication Skills	3	ENGL201	
Total		15		

### General Education Electives

Code	Title	Credits	Prerequisites	Corequisites
	Elective	3		
	Elective	3		
Total		6		

### Major Elective Courses

Code	Title	Credits	Prerequisites	Corequisites
BMGT200	Introduction to Business Management	3		ENGL201
EDIT250	Educational Technology for Teachers	3	CSCI200	
EENG250	Electric Circuits I	3	PHYS161-PHYS160-MATH161-MATH160-ENGL051	MATH210
MATH400	Special Functions	3	MATH270	
MATH460	Functional Analysis	3	MATH345	

MATH465	Selected Topics in Undergraduate Mathematics	3	MATH260	
MATH475	Computational Mathematics	3	MATH375	
MATH495	Mathematics Senior Project	3	MATH380-MATH330	
MENG250	Statics	3	ENGL051	MATH210
MENG370	Fluid Mechanics I	3		MATH375
PHYS330	Electromagnetic Fields and Waves I	3	PHYS280-PHYS250	
PHYS340	Modern Physics	3	PHYS250	
PHYS350	Physical Optics	3	PHYS250	
PHYS370	Nuclear Physics	3	PHYS340	
PHYS390	Astronomy	3	PHYS280-PHYS250-ENGL251	
PHYS420	Quantum Mechanics	3	PHYS360-PHYS340	
PHYS430	Thermal Physics I	3	PHYS340-PHYS330	