

Bachelor of Science in Mathematics (MATH)

First Year

Fall Semester

Code	Title	Credits	Prerequisites	Corequisites
CSCI200	Introduction to Computers	3	ENGL051	
ENGL201	Composition and Research Skills	3	ENGL151	
ARAB200	Arabic Language and Literature	3		
MATH225	Linear Algebra with Applications	3	MATH160 - ENGL051 - MATH161	
PHYS210	Mechanics	3	PHYS161 - MATH161 - PHYS160 - MATH160 - ENGL051	
MATH210	Calculus II	3	MATH161 - MATH160	
Total		18		

Spring Semester

Code	Title	Credits	Prerequisites	Corequisites
MATH220	Calculus III	3	MATH210	
MATH270	Ordinary Differential Equations	3	MATH225 - MATH210	
MATH260	Discrete Mathematics	3	MATH225	MATH260L
MATH260L	Discrete Mathematics Lab	1	MATH225	MATH260
CSCI250	Introduction to Programming	3	CSCI200	CSCI250L
ENGL251	Communication Skills	3	ENGL201	
CSCI250L	Introduction to Programming Lab	1	CSCI200	CSCI250
Total		17		

Second Year

Fall Semester

Code	Title	Credits	Prerequisites	Corequisites
MATH345	Introduction to Real Analysis	3	MATH270 - MATH220	
MATH315	Advanced Linear Algebra	3	MATH225	
MATH310	Probability & Statistics for Scientists & Engineers	3	MATH210 - ENGL201	
CULT200	Introduction to Arab - Islamic Civilization	3		
MATH305	Programming Languages for Scientists	3	MATH220 - MATH260	
	Elective	3		
Total		18		

Spring Semester

Code	Title	Credits	Prerequisites	Corequisites
	Elective	3		
MATH380	Complex Variables	3	MATH220	
MATH375	Numerical Methods for Scientists & Engineers	3	MATH270 - MATH225	
MATH365	Abstract Algebra	3	MATH315	
PHYS250	Thermodynamics and Waves	3	PHYS161 - PHYS160 - MATH161 - MATH160 - ENGL051	
MATH385	Introduction to Topology	3	MATH345	
Total		18		

Third Year				
Fall Semester				
Code	Title	Credits	Prerequisites	Corequisites
	Elective	3		
PHYS280	Electricity and Magnetism	3	PHYS210	
MATH330	Partial Differential Equations	3	MATH270	
MATH405	Number Theory	3	MATH315	
MATH420	Differential Geometry	3	MATH345	
Total		15		
Spring Semester				
Code	Title	Credits	Prerequisites	Corequisites
MATH490	Modern Topics in Algebra	3	MATH365	
MATH492	Mathematical Seminar	1	MATH385	
PHYS360	Analytical Mechanics	3	PHYS210 - MATH270 - MATH220	
MATH455	Mathematical Analysis	3	MATH345	
	Elective	3		
Total		13		
Major Elective Courses				
Code	Title	Credits	Prerequisites	Corequisites
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	