

**Bachelor of Education in Mathematics and Physics (BEMP)**

**First Year**

**Fall Semester**

Code	Title	Credits	Prerequisites	Corequisites
PHYS210	Mechanics	3	PHYS161 - MATH161 - PHYS160 - MATH160 - ENGL051	
CSCI200	Introduction to Computers	3	ENGL051	
CULT200	Introduction to Arab - Islamic Civilization	3		
ENGL201	Composition and Research Skills	3	ENGL151	
MATH225	Linear Algebra with Applications	3	ENGL051 - MATH161	
Total		15		

**Spring Semester**

Code	Title	Credits	Prerequisites	Corequisites
CSCI250	Introduction to Programming	3	CSCI200	ENGL101 - CSCI250L
MATH210	Calculus II	3	MATH161 - MATH160	
MATH260L	Discrete Mathematics Lab	1	MATH225	MATH260
CSCI250L	Introduction to Programming Lab	1	CSCI200	ENGL101 - CSCI250
EDUC221	Introduction to Educational Psychology	3		ENGL201
EDIT250	Educational Technology for Teachers	3	CSCI200	
MATH260	Discrete Mathematics	3	MATH225	MATH260L
Total		17		

**Second Year**

**Fall Semester**

Code	Title	Credits	Prerequisites	Corequisites
PHYS280	Electricity and Magnetism	3	PHYS210 - MATH161 - MATH160	
MATH220	Calculus III	3	MATH210	
EDUC281	Learning & Developmental Theories	3	EDUC221	
EDUC328	Introduction to Math and General Sciences Curriculum	3	ENGL251	
ENGL251	Communication Skills	3	ENGL201	
MATH270	Ordinary Differential Equations	3	MATH210	MATH225
Total		18		

**Spring Semester**

Code	Title	Credits	Prerequisites	Corequisites
MATH305	Programming Languages for Scientist	3	MATH260	
EDUC346	Introduction to Classroom Management	3	EDUC281	
EDUC423	Teaching Mathematics and General Sciences for Elementary Teachers	3	EDUC281	
MATH310	Probability & Statistics for Scientists & Engineers	3	MATH210 - ENGL201	
PHYS250	Thermodynamic and Waves	3	PHYS161 - MATH161 - ENGL051 - MATH160 - PHYS160	
ARAB200	Arabic Language and Literature	3		
Total		18		

### Third Year

#### Fall Semester

Code	Title	Credits	Prerequisites	Corequisites
PHYS340	Modern Physics	3	PHYS250	
EDUC440	Teaching Practicum I	3	EDUC346	EDUC405
	Elective	3		
EDUC405	Methods of Teaching & Testing	3	EDUC281	
EDUC380	Statistical Research in Education	3	ENGL201	
MATH345	Introduction to Real Analysis	3	MATH270 - MATH220	
Total		18		

#### Spring Semester

Code	Title	Credits	Prerequisites	Corequisites
	Elective	3		
EDUC411	Introduction to the Philosophy of Education	3	ENGL201	
MATH492	Mathematical Seminar	1		
EDUC490	Teaching Practicum II	3	EDUC440	
	Elective	3		
Total		13		

### Major Elective Courses

Code	Title	Credits	Prerequisites	Corequisites
EDUC230	Teaching Arts & Crafts	3		ENGL101
EDUC261	Music Methods for Home Class Teachers	3		ENGL151
EDUC305	Educational Theories in Guidance and Counseling	3	EDUC221	
EDUC375	Introduction to Special Education	3	EDUC221	
EDUC390	Introducing the Montessori Approach to Early Years Practices	3		EDUC281
EDUC421	Teaching Mathematics for Elementary Teachers	3		EDUC405
EDUC460	Role of Play in Child Development	3	EDUC281	
LANG230	Sign Language	3		