



**UNIVERSIDAD POLITÉCNICA DE PUERTO RICO**  
**GRADUATE PROGRAM IN SCIENCES OF EDUCATION**  
**IN NATURAL SCIENCES AND MATHEMATICS**  
**2024 - 2026**



COURSE	COURSE TITLE	PRE-REQUISITES	2024-2025			2025-2026		
			FA	WI	SP	FA	WI	SP
<b>EDUCATION COURSES</b>								
EDUC 5000	Problem Based Education (PBE)				X	X		
EDUC 5010	Curriculum Design and Evaluation				X			X
EDUC 5020	Research Methods			X	X		X	
EDUC 5030	Teaching and Methodology: 6 <sup>th</sup> to 12 <sup>th</sup> grade Mathematics		X	X	X	X	X	X
EDUC 5031	Teaching and Methodology: 6 <sup>th</sup> to 12 <sup>th</sup> grade Sciences		X	X	X	X	X	X
EDUC 6020	Assessment and Improvement of Instruction		X			X		
EDUC 6030	Differentiating Instruction			X			X	
EDUC 6100	Action Research for Teachers				X	X		X
<b>MATHEMATICS COURSES</b>								
MATH 5100	Math Modeling				X	X		
MATH 5210	Advanced Calculus for Teachers I			X				
MATH 5220	Advanced Calculus for Teachers II	MATH 5210			X			
MATH 5500	Advanced Math for Teachers						X	
MATH 6020	Rational Numbers and Proportional Reasoning			X			X	
MATH 6030	Measurement, Data and Geometric Thinking		X					X
MATH 6040	Algebraic Reasoning, Functions and Equations				X			
MATH 6110	Discrete Mathematics						X	
MATH 6120	Probability and Statistics for Teachers							X
MATH 6130	Probability Models for Teachers							
MATH 6150	Introductory Topology							
MATH 6160	Applied Modern Algebra				X			X
MATH 6180	Modern Geometry for Teachers		X					X
<b>SCIENCES COURSES</b>								
SCIE 5010	Fundamental of Environmental Education			X			X	
SCIE 5020	Software Applications and Technology		X			X		
SCIE 6010	Investigating the Living World			X		X		
SCIE 6020	Exploring the Physical World				X			X
SCIE 6030	Exploring the Earth and Beyond						X	
SCIE 6040	Chemistry for Teachers			X		X		