

MATHEMATICS EDUCATION (PHD)

For details about this program, including program description, admission requirements, and contact information, click here (<https://www.montclair.edu/graduate/programs-of-study/mathematics-education-phd/>).

Program Requirements

Code	Title	Credits
Required Mathematics Education Courses		
Complete 5 courses from the following:		15
MATH 745	The Use of Teacher Knowledge in Mathematics Teaching	
MATH 811	Mathematics Education Leadership	
MATH 813	Geometric and Spatial Thinking and Learning	
MATH 814	Mathematical Thinking and Learning	
MATH 815	Theories of Learning Mathematics	
MATH 816	Mathematics Curricula	
Required Education Courses		
Select three of the following:		9
TETD 803	Teacher Learning Across the Professional Continuum	
TETD 804	Educational Equity and School Change	
TETD 805	Issues in Teacher Preparation and the Education of English Language Learners	
TETD 806	The Practice of Teacher Education and Teacher Development	
TETD 807	Studying Teacher Quality	
TETD 809	Language and Literacy in Sociocultural Context	
TETD 810	Literacy and Digital Technologies in Schools and Teacher Education	
TETD 811	Mentoring Pre-Service Novice Teachers	
TETD 812	History of Teacher Education	
TETD 813	Learning Connections: The Link Between Schools and Universities	
TETD 816	Special Topics in Teacher Education and Teacher Development	
TETD 817	Research in Teacher Education	
TETD 827	Issues in Science and Mathematics Teacher Education	
Elective Mathematics Education Courses		
Select three of the following:		9
MATH 740	Technological Tools for Education in Mathematics	
MATH 741	Historical and Multicultural Foundations of Mathematical Thought	
MATH 742	Mathematical Modeling in the Sciences	
MATH 743	Advanced Perspectives on High School Mathematics	
MATH 744	Special Topics in Mathematics Education	
MATH 746	Designing for Mathematical Experience	
MATH 790	Independent Study in Mathematics Education	

MATH 812	Research in Mathematical Modeling for Middle Level and High School Grades	
Research Requirement		
EDFD 820	Qualitative Methods for Educational Research	3
EDFD 821	Quantitative Methods for Educational Research	3
EDFD 822	Advanced Methods of Quantitative Inquiry in Education	3
EDFD 823	Advanced Qualitative Research in Education	3
MATH 825	Research in Mathematics Education	3
Complete for a total of 3 credits:		3
MATH 830	Doctoral Seminar in Mathematics Education	
Higher Education Requirement		
MATH 821	Mathematics Education in Higher Education	3
MATH 822	Mathematics Education in Higher Education Practicum	1
Qualifying Portfolio/Exam/Assessment		
Successfully complete the qualifying portfolio, examination or assessment requirement.		
Required Dissertation Courses		
<i>Advisement Course</i>		
MATH 900	Dissertation Advisement ¹	12
Admission to Candidacy		
Following completion of pre-dissertation research courses and qualifying exam, you may be admitted to candidacy.		
Dissertation Requirement		
Complete a dissertation in accordance with Graduate School and doctoral program requirements.		
Total Credits		67

¹ After 12 hours of Dissertation Advisement, register for 1 hour of MATH 901 (Dissertation Extension) each semester within the time limit set by the Graduate School.