CATO COLLEGE OF EDUCATION
MIDDLE, SECONDARY AND K-12 EDUCATION

Doctor of Philosophy in Curriculum and Instruction: Mathematics Education

Program Director: Dr. Tina Heafner (theafner@charlotte.edu)
Concentration Coordinator: Dr. Allison McCulloch (allison.mcculloch@charlotte.edu)

Course #	Title	Credit Hours
Core Courses		**15**
EDCI 8620	**Pro-Seminar in Curriculum, Instruction, and Educational Leadership**	**3**
EDCI 8180	**Critical Issues and Perspectives in Urban Education**	**3**
EDCI 8182	**Power, Privilege and Education**	**3**
EDCI 8184	**Social Theory and Education**	**3**
EDCI 8186	**Globalization, Urbanization and Urban Schools**	**3**
Research Methodology Courses		**15**
Required Courses:		
RSCH 8110	**Descriptive and Inferential Statistics**	**3**
RSCH 8210	**Applied Research Methods**	**3**
GRAD 8990	**Academic Integrity**	
All Ph.D. students are required to register for GRAD 8990 Academic Integrity in the first semester.		
Choose three or more of the following:		
RSCH 8111	**Qualitative Research Methods**	**3**
RSCH 8112	**Survey Research Methods**	**3**
RSCH 8113	**Single-Case Research**	**3**
RSCH 8120	**Advanced Statistics**	**3**
RSCH 8121	**Advanced Qualitative Methods**	**3**
RSCH 8131	**Interviewing as Qualitative Inquiry**	**3**
RSCH 8140	**Multivariate Statistics**	**3**
RSCH 8150	**Structural Equation Modeling**	**3**
RSCH 8160	**Hierarchical Linear Models in Education**	**3**
RSCH 8196	**Program Evaluation Methods**	**3**
RSCH 8197	**Design and Analysis of Experimental and Quasi-Experimental Evaluations**	**3**
RSCH 8220	**Educational and Psychological Measurement**	**3**
RSCH 8230	**Theory and Applications of Measurement**	**3**
RSCH 8890	**Special Topics in Research**	**3**

Five courses are required but not necessarily sufficient. Additional courses not listed require

program director approval.

Mathematics Specialization Courses		**21**
Required Courses (15 Credit Hours):		
EDCI 8112	**Theoretical Foundations of Learning Mathematics**	**3**
EDCI 8113	**Research in Mathematics Education**	**3**
EDCI 8114	**Advanced Topics in Mathematics Education**	**3**
EDCI 8115	**Issues in the Teaching of Mathematics**	**3**
EDCI 8160	**Readings in Mathematics Education**	**3**
Select from the following. (Minimum 6 Credit Hours.) Students may enroll in 3 credit hours of graduate-level courses outside of the below list with approval of the Program Advisor.		
EDCI 8004	**Topics in Analysis**	**3**
EDCI 8008	**Topics in Geometry and Topology**	**3**
EDCI 8010	**Topics in Mathematics Education**	**3**
EDCI 8101	**Foundations in Mathematics**	**3**
EDCI 8102	**Real Analysis for Secondary Mathematics Teachers**	**3**
EDCI 8103	**Computer Techniques and Numerical Methods**	**3**
EDCI 8105	**Problem Solving in Discrete Mathematics**	**3**
EDCI 8106	**Modern Algebra for Secondary Mathematics Teachers**	**3**
EDCI 8107	**Linear Algebra for Secondary Mathematics Teachers**	**3**
EDCI 8118	**Non-Euclidean Geometry**	**3**
EDCI 8860	**Independent Study in Mathematics Education**	**3**
Required for Dissertation		**9**
EDCI 8699*	**Dissertation Proposal Seminar**	**3**
EDCI 8999*	**Dissertation Research**	**6**

Contact the Program Director for approval to enroll in EDCI 8699 and EDCI 8999. To be taken after successful completion of the comprehensive examinations and pre-proposal meeting with committee members.

****Students must be admitted to candidacy to enroll in EDCI 8999. A minimum of 6 credit hours of dissertation research is required. Additional hours may be taken to complete the dissertation process.***

Minimum Total Credits	**60**