MATHEMATICS & SCIENCE

MAED610 (4)
Mathematical Modeling for Middle Grades Educators
Investigation of concepts and practices of mathematical modeling with an emphasis on application to middle grades education. The pedagogy of the course models that of effective middle school mathematics teachers.

MAED625 (2)
Mathematical Investigations for Middle Grades Classrooms
Participants investigate topics in mathematics, including probability, programming, fractals, and chaos theory. Emphasis is placed on participant understanding of these topics and their appropriate use as investigations with middle grades students. The pedagogy of the course models that of effective middle school mathematics teachers.

MAED 630 (1-4)
Seminar:_____
Seminar in specific topics relevant to mathematics education. Each seminar examines one topic in detail. Repeatable with different topics. May be graded S/U.

- Earned credit or demonstrated proficiency in the following prerequisites: CPTR125 or 151 or PHYS235; MATH191 or 195, 192, 240, 286; and two out of three year-long laboratory science courses: BIOL165, 166, CHEM131, 132 and PHYS241, 242, 271, 272. A student may be admitted with deficiencies in the above courses, but this exception requires the student to take additional credits beyond the minimum 32 credits required.

MS Degree Requirements   (32–40)

1. Compliance with all standards as given in the *Graduate Degree Academic Information* section of the bulletin.
2. Completion of a curriculum consisting of 32–40 credits approved by a supervising committee.
3. Passing a comprehensive examination over two areas from among Mathematics, Biology, Chemistry and Physics.
4. 12 credits in each of two disciplines selected for the degree.
5. A minimum of 16 credits in courses numbered 500 and above.

Core Courses

MATH405, MSCI526, 575, 670, 698, undergraduate prerequisites* and other courses recommended by the student's committee.

 * *Up to 8 credits selected from among the prerequisites listed in the specific admission requirements are added to the minimum 32 credits for the degree.*

Disciplinary Core

For students choosing the Chemistry or Physics options:
CHEM431, 432, 441, 442
or PHYS411, 430, 481, 577

Courses   (Credits)

See Biology for BIOL course descriptions; Chemistry and Biochemistry for CHEM and BCHM; Mathematics for MATH; Physics for PHYS.

MSCI526   (2–3)
Christian Faith and the Sciences
Discussion of science and epistemology in the context of Christian faith, scientific model building, the church-science interface, and ethical considerations.

MSCI575   (1)
Mathematics and Science Seminar
Current research topics in mathematics and physical sciences. Attendance at 12 hours of research presentations, a paper, and a presentation of a current research topic.

MSCI650 $ (0)
Project Continuation
Student may register for this title while clearing deferred grade (DG) and/or incomplete (I) courses with advisor approval only. Registration for this title indicates full-time status.

MSCI655 $ (0)
Program Continuation
Students may register for this non-credit continuation course to maintain active status. For additional information on active status, please refer to p. 49 in the bulletin. Registration does not indicate full-time status.

MSCI665 $ (0)
Preparation for Comprehensive Examinations
Advisor approval required. Registration for this title indicates full-time status.

MSCI670   (0)
Comprehensive Exams

MSCI698   (1–4)
Research Project
Repeatable to 4 credits.

Procedures

1. Upon acceptance, the student consults with the program coordinator and a graduate advisor to develop a plan of study. Any deficiencies, prerequisites, research, language tools, transfer credits, and residency are discussed to establish the status of the student.
2. The student then submits a plan of study to the program coordinator for approval and identifies three faculty members to serve as a supervisory committee. The approved plan of study becomes the curriculum the student will follow to complete the requirements for the degree. Any changes in