MAED610
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
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
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.

MS: Mathematics and Science
The Master of Science: Mathematics and Science is designed for students who wish to acquire a breadth of knowledge which cannot be achieved within any one discipline among mathematics, biology, chemistry and physics. Such a degree may be useful for secondary or middle-school teachers who teach mathematics and science subjects, but who do not desire a traditional MAT program; for those who wish to develop skills in areas of overlap in these disciplines; for those who wish to study the interrelationships among the disciplines; and for those who wish further preparation for careers in industry or government.

SPECIFIC ADMISSION REQUIREMENTS
1. Students admitted into the MS: Mathematics and Science program must hold a baccalaureate degree with a major in one of the above areas with a cumulative GPA of at least 2.60 (4.00 system) and have earned credit or demonstrated proficiency in the following prerequisites: CPT125 (FORTRAN or C++) or CPT151; MATH141, 142, 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.
2. Acceptance is contingent on the availability of faculty and
facilities, as determined by the program coordinator upon review
of the applicant’s goals and proposed area(s) of emphasis.

MS DEGREE REQUIREMENTS
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.

Core Courses
MATH405 (3), IDSC526 (2)
IDSC698 (1-3) may be repeated up to 6 credits,
IDSC575 (1), undergraduate prerequisites* (0–8), and other
courses recommended by the student’s committee.

Disciplinary Core
For students choosing the Chemistry and/or Physics options:
CHEM431, 432 (6) and CHEM441, 442 (2)
or PHYS411 (2.5) and PHYS430 (2.5) and PHYS481 (3),
*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.
Total MS degree credits required—32–40

• The student must include at least 12 credits in each of the two
disciplines selected for the degree.
• A student must complete a minimum of 16 credits in courses
numbered 500 and above.

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

PROCEDURES
1. Upon acceptance, the student consults with the program coor-
dinator 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 coor-
dinator 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 the plan of study
must therefore be approved by the graduate advisor, the pro-
gram coordinator and the committee.
3. All projects must be submitted to the supervising committee at
least two months prior to graduation. The program coordina-
tor recommends final project approval after the consent of the
committee has been obtained.
4. When 50% of all course work has been completed, the student
initiates advancement to degree candidacy by submitting the
required forms to the program coordinator. When the program
coordinator approves the student for graduation, a recommenda-
tion is sent to the Records Office and to the Dean of Graduate
Studies.
5. Graduation procedures and degree conferral are described in
detail on pp. 28–29.

Faculty of the Department of Music are committed to providing a
vibrant musical and learning environment to nurture artistic and
creative growth in all students of music, to encourage and guide
students through dynamic interaction in classroom and practical
experiences as they mature into tomorrow’s music professionals,
and to mentor students in responsible use of their talents for
service to Christ and to humanity.

Bachelor of Music curricula provide a comprehensive exposure
to and experience with the performance, history, and theory of
music. Students receive hands-on supervised teaching experience
in studio or classroom teaching. Bachelor of Arts curricula are for
students wishing to pursue concerted study in music within a
liberal arts context.

Non-music majors may take courses in music or participate in
music lessons or ensembles for credit or non-credit. See General
Education section and course descriptions below for further
clarification.

The Andrews University Department of Music has been a mem-
ber of the National Association of Schools of Music since 1964.
Music majors may choose to join the student chapter of Music
Educators National Conference.