MTHE—Mathematics Education

Program in Mathematics Education
College of Natural Science

430 History of Mathematics
Fall, Spring. 3(3-0) P: MTH 133 and MTH 301
SA: SME 430
Development of mathematical thought from ancient
times to the present, selected from Egyptian, Babylon-
ian, Mayan, Greek, Indian, and Arab contribu-
tions to mathematics and to the context of today’s
school mathematics curriculum.

800 Problems in Mathematics for Teachers
Fall, Spring, Summer. 1 to 5 credits. A
student may earn a maximum of 15
credits in all enrollments for this course.
RB: Elementary Certification or Second-
ary Certification in Mathematics Educa-
tion R: Open to graduate students in the
Mathematics Education Major. Approval
of department.
Supervised study of problems or issues in mathe-
ematics education.

840 Critical Content of School Mathematics: Numbers and Operations
Spring of odd years. 3(3-0) R: Open to
graduate students. SA: SME 840
Mathematical foundations of numbers, number sys-
tems, and related algorithms. Historical develop-
ment. Development in school curriculum. Research
on teaching and learning.

841 Critical Content of School Mathematics: Algebra
Fall of odd years. 3(3-0) RB: MTH 310
and MTH 320 R: Open to graduate stu-
dents. SA: SME 841
Mathematical foundations of algebra. Historical de-
velopment. Development in school curriculum. Re-
search on teaching and learning.

842 Critical Content of School Mathematics: Geometry
Spring of even years. 3(3-0) RB: MTH
330 or MTH 432 R: Open to graduate
students. SA: SME 842
Mathematical foundations of geometry. Instructional
materials. Historical development. Development of
geometry in school curriculum. Research on teach-
ing and learning.

879 Teaching College Mathematics
Fall of even years. 3(3-0) A student may
earn a maximum of 6 credits in all enroll-
ments for this course. Interdepartmental
with Counseling, Educational Psychol-
ogy and Special Education and Mathe-
matics and Teacher Education. Adminis-
tered by Mathematics Education. RB:
Past or concurrent mathematics teach-
ing experience. SA: SME 879
Curriculum materials, case studies, approaches to
teaching and student learning of particular mathe-
matics topics.

890 Independent Study
Fall, Spring, Summer. 1 to 3 credits. A
student may earn a maximum of 12
credits in all enrollments for this course.
R: Open to master’s students. SA: SME 890
Individualized study for master’s level students.

899 Master’s Thesis Research
Fall, Spring, Summer. 1 to 8 credits. A
student may earn a maximum of 36
credits in all enrollments for this course.
R: Open to master’s students in the
Mathematics Education Major. Approval
of department.
Master’s thesis research.

926 Proseminar in Mathematics Education I
Fall of odd years. 3(3-0) Interdepart-
mental with Counseling, Educational
Psychology and Special Education and
Teacher Education. Administered by
Mathematics Education. SA: SME 926
Research on the learning and teaching of mathe-
matics. Focus on curriculum, discourse, equity and
teacher education.

927 Proseminar in Mathematics Education II
Fall of even years. 3(3-0) Interdepart-
mental with Counseling, Educational
Psychology and Special Education and
Teacher Education. Administered by
Mathematics Education. SA: SME 927
Research on the learning and teaching of mathe-
matics. Focus on teaching, student learning, as-
essment and policy.

954 Design and Methods in Mathematics Education Research
Fall. 3(3-0) Interdepartmental with Coun-
seling, Educational Psychology and Special
Education and Teacher Education. Administered by
Mathematics Education. SA: SME 954
History, current trends, and issues pertaining to re-
search design and methods in mathematics educa-
tion research. Mathematics education research in
the areas of policy, teaching, teacher learning, and
student learning with particular attention to how re-
search design influence research findings.

990 Independent Study
Fall, Spring, Summer. 1 to 3 credits. A
student may earn a maximum of 12
credits in all enrollments for this course.
R: Open to doctoral students. SA: SME 990
Individualized study for doctoral level students.

995 Research Practicum
Spring. 1 to 3 credits. RB: MTHE 954 R:
Open to graduate students in the Mathe-
matics Education Major. Approval of de-
partment.
Supervised research practicum. Design, execution,
analysis, presentation, critique, and revision of re-
search projects.

997 Special Topics in Mathematics Education
Fall, Spring, Summer. 3 to 6 credits. A
student may earn a maximum of 18
credits in all enrollments for this course.
SA: MTH 997, SME 997
Advanced topics in mathematics education.

999 Doctoral Dissertation Research
Fall, Spring, Summer. 1 to 24 credits. A
student may earn a maximum of 30
credits in all enrollments for this course.
RB: MTHE 926 and MTHE 927 and
MTHE 954 SA: SME 999
Doctoral dissertation research.