MATHEMATICS  MTHE
EDUCATION

College of Natural Science

430  History of Mathematics
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, Baby-
lonian, 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 stu-
dent may earn a maximum of 15 credits in
all enrollments for this course. RB: Eleme-
tary Certification or Secondary Certification
in Mathematics Education R: Open to grad-
uate students in the Mathematics Education
Major. Approval of department.
Supervised study of problems or issues in mathe-
matics 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
systems, and related algorithms. Historical devel-
opment. Development in school curriculum. Re-
search 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 students.
SA: SME 841
Mathematical foundations of algebra. Historical
development. Development in school curriculum.
Research 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 Psychology
and Special Education and Mathematics
and Teacher Education. Administered by
Mathematics Education. RB: MTHE 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 stu-
dent may earn a maximum of 12 credits in
all enrollments for this course. R: Open to
masters students. SA: SME 890
Individualized study for master's level students.

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

926  Proseminar in Mathematics Education I
Fall of odd years. 3(3-0) Interdepartmental
with Counseling, Educational Psychology
and Special Education and Mathematics
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) Interdepartmental
with Counseling, Educational Psychology
and Special Education and Mathematics
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 Counsel-
ing, Educational Psychology and Special
Education and Mathematics and Teacher Edu-
cation. RB: (MTHE 927) and at least
one approved research methods course.
SA: SME 954
History, current trends, and issues pertaining to
research design and methods in mathematics edu-
cation research. Mathematics education research in
the areas of policy, teaching, teacher learning,
and student learning with particular attention to how
research design influence research findings.

990  Independent Study
Fall, Spring, Summer. 1 to 3 credits. A stu-
dent 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. 3 credits. RB: MTHE 954 R: Open
to graduate students in the Mathematics
Education Major. Approval of department.
Supervised research practicum. Design, execution,
analysis, presentation, critique, and revision of
research projects.

997  Special Topics in Mathematics Education
Fall, Spring, Summer. 3 to 6 credits. A stu-
dent 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 stu-
dent may earn a maximum of 120 credits in
all enrollments for this course. RB: MTHE
926 and MTHE 927 and MTHE 954 SA:
SME 999
Doctoral dissertation research.