MATH EDUCATION (MTED)

MTED 3040 - Mathematics for Elementary Teachers (3 Credits)
Key mathematical concepts for K-6 teachers informed by NCTM &
Common Core State Standards, such as place-value number systems,
rational, proportional, & algebraic reasoning, geometrical concepts, &
statistical/probability ideas. Students’ meaningful, enjoyable learning is
promoted via problem solving activities. Cross-listed with MTED 5400.
Max hours: 3 Credits.
Grading Basis: Letter Grade

MTED 4002 - Elementary Mathematics Teaching I (3 Credits)
Prepares elementary teachers to teach mathematics to PreK-6 students
while applying principles of the National Council of Teachers of
Mathematics to mathematical learning. Teachers explore ways to help
all elementary students become flexible and resourceful mathematical
problem solvers. Cross-listed with MTED 5002. Restriction: Professional
Year Admission required. Max hours: 3 Credits.
Grading Basis: Letter Grade

MTED 4003 - Elementary Mathematics Teaching II (3 Credits)
Develops the mathematical and pedagogical understandings and
competence of elementary teachers, focusing on instructional
assessment, principles, and practices. Cross-listed with MTED 5003.
Prereq: MTED 4002 or MTED 5002. Restriction: Professional Year
Admission required. Max hours: 3 Credits.
Grading Basis: Letter Grade

MTED 4300 - Curriculum and Methods for Teaching Mathematics (3
Credits)
Fosters teachers' use of task-based mathematics pedagogy, including
orchestrating students’ mathematical discourse, to develop mathematics
classrooms in which the teacher builds from students’ current
understandings, accommodates for students’ differences, and has high
expectations for all students. Cross-listed with MTED 5300. Restriction:
Professional Year Admission required. Max hours: 3 Credits.
Grading Basis: Letter Grade

MTED 4621 - A World of (Different) Numbers: Quantity and Operation (3
Credits)
Develops K-12 teachers’ understanding of number systems and the ability
to foster students’ understanding. Focuses on number, quantity, and
operation. Applicable to teaching students at all grade levels in line with
the K12 Common Core Standards. Cross-listed with MTED 5621. Max
hours: 3 Credits.
Grading Basis: Letter Grade

MTED 4622 - Expanding Conceptions of Algebra (3 Credits)
Develops K-12 teachers’ understanding of algebra concepts and the
ability to foster students’ understanding. Focuses on equivalence,
variable, covariation, and function. Applicable to teaching students at all
grade levels in line with the K12 Common Core Standards. Cross-listed
with MTED 5622. Max hours: 3 Credits.
Grading Basis: Letter Grade

MTED 4623 - Geometrical Ways of Reasoning (3 Credits)
Develops K-12 teachers’ geometrical reasoning and the ability to
foster students’ reasoning. Addresses transformation, measurement,
classification, objects, imagery, formulas, and investigation. Applicable to
teaching students at all grade levels in line with the K-12 Common Core
Standards. Cross-listed with MTED 5623. Max hours: 3 Credits.
Grading Basis: Letter Grade