

Proposed MathCS with Teaching B.S. TUteach Degree.

List of Mathematics Content Requirements:

Math 1041 (4 cr.) Calculus I
Math 1042 (4 cr.) Calculus II
Math 2043 (4 cr.) Calculus III
Phys 1061 (4 cr.) Elementary Classical Physics I
Phys 1062 (4 cr.) Elementary Classical Physics II
Math 2101 (3 cr.) Linear Algebra
Math 3003 (3 cr.) Theory of Numbers
Math 3061 (3 cr.) Modern Geometry I
Math 3096 (New) (3 cr.) Introduction to Modern Algebra
Math 3137 (3 cr.) Real and Complex Analysis I
Math 3138 (3 cr.) Real and Complex Analysis II

Subtotal 38 credits

List of Computer Science Content Requirements:

CIS 1068 (4 cr.) Program Design and Abstraction
CIS 1166 (4 cr.) Math Concepts in Computing I or Math 2196 (3 cr.) Basic Concepts of Math
CIS 2107 (4 cr.) Computer Systems & Low-Level Programming
CIS 2168 (4 cr.) Data Structures
CIS 3207 (4 cr.) Introduction to Systems Programming & Operating Systems
CIS 3223 (4 cr.) Data Structures and Algorithms

Subtotal 24 credits

Capstone Requirement:

Math 4096 (3 cr.) Senior Problem Solving Seminar or CIS 4298 Software Engineering or
CIS 4397 Projects in Computer Science (4 cr.)

Subtotal 3-4 credits

List of TUteach Additional Requirements:

UTeach Step 1 (1 cr.)
UTeach Step 2 (1 cr.)
UTeach Knowing and Learning (3 cr.)
UTeach Classroom Interactions (3 cr.)
UTeach Perspectives on Science and Math (3 cr.)
UTeach Functions & Modeling (3 cr.) (Only for Mathematics TUteach programs)
TUteach Language & Literacy in Math & Sci (3 cr.)
UTeach Research Methods (3 cr.)
UTeach Project-Based Instruction (3 cr.)
UTeach Apprentice Teaching (6 cr.)
UTeach Apprentice Teaching Seminar (1 cr.)

Subtotal 30 credits

Total 95-96 credits



Comparison of Mathematics Content to Mathematics BA:

Changed

Mathematics Elective (3-4 cr.) to Math 3061 (3 cr.) Modern Geometry I
Mathematics Elective (3-4 cr.) to CIS 1166 (4 cr.) Math Concepts in Computing I
Mathematics Elective (3-4 cr.) to CIS 3223 (4 cr.) Data Structures and Algorithms
Math 2196 (3 cr.) Basic Concepts of Math to Math 3003 (3 cr.) Theory of Numbers
because important for Secondary Ed teaching

Removed

Math 3031 removed as sufficient probability is covered in CIS 1166 and UTeach
Research methods

Comparison of Computer Science Content to Computer Science BA:

Removed

Engl 2696 (Technical Writing) since sufficient writing in Perspectives course
CIS 1001 (1 cr.) Freshman Seminar in Computer Science
CIS 3287 (4 cr.) Software Design/Practicum