Requirements of the Computer and Mathematical Sciences Secondary Education Concentration

Required Computer Science Courses

CIS 377	Information Systems Security	3
COSC 109	Computers and Creativity **(Core 4)**	3
COSC 236[1]	Introduction to Computer Science I	4
COSC 237	Introduction to Computer Science II	4
COSC 336	Data Structures and Algorithm Analysis	4
COSC 412	Software Engineering	3
COSC 418	Ethical and Societal Concerns CS **(Core 14)**	3
COSC 482	Teaching Computer Science in Secondary Schools	3
COSC 492	Internship Secondary Education-Computer Science	6
ITEC 250	Fundamentals of Computer Networks	3

Required Mathematics Courses

MATH 265	Elementary Linear Algebra	4
MATH 267	Introduction to Abstract Mathematics	4
	or MATH 263 Discrete Math	3
MATH 273	Calculus I **(Core 3)**	4
MATH 274	Calculus II	4
MATH 275	Calculus III	4
MATH 310	Functions and Modeling **(Core 9)**	3
MATH 330	Introduction to Statistical Methods	4
MATH 353	Euclidean and Non-Euclidean Geometry	3
MATH 423	Teaching Mathematics in the Secondary Schools	3
MATH 426	Internship Secondary Education – Mathematics	6

Required Education Courses

SEMS 110	Intro to STEM Teaching I	1
SEMS 120	Intro to STEM Teaching II	1
SEMS 230	Knowing & Learning	3
SEMS 240	Classroom Interactions	3
SEMS 250	Perspectives in Science and Mathematics **(Core 5)**	3
SEMS 370	Project-Based Instruction	3
SEMS 498	Intern. Math and Science Secondary Education	3
SEMS 430	Seminar in STEM Education	1
SCED 460	Using Reading & Writing in the Secondary Schools	4
SCED 461	Teaching Reading in the Secondary Content Areas	3

Additional Courses Needed to Satisfy the Core Curriculum

(Core Curriculum Categories 1, 2, 6, 7, 8, 10, 11, 12, 13)	28

Total Credit Count	127