

Mathematics Major, Computational Mathematics Emphasis Plan

The suggested schedule shown below should be used in conjunction with the major requirement sheet at:
<http://www.usu.edu/majorsheets/>

While there are requirements that are sequential, many are flexible and do not need to be completed exactly in the order listed. Students should always check with their faculty and professional advisors to be sure they are meeting the requirements appropriately.

Freshman Year (35-41 credits)

Fall Semester (18-21 credits)

MATH 1210 (QL) Calculus I	4
CS 1400 Introduction to Computer Science—CS 1.....	3
CS 1405 Introduction to Computer Science—CS 1 Lab.....	1
College of Science required course.....	4
University Studies courses	6-9

Spring Semester (17-20 credits)

MATH 1220 (QL) Calculus II	4
CS 1410 (QI) Introduction to Computer Science—CS 2	3
College of Science required course.....	4
University Studies courses	6-9

Sophomore Year (36-38 credits)

Fall Semester (18-19 credits)

MATH 2210 (QI) Multivariable Calculus	3
MATH 2250 (QI) Linear Algebra and Differential Equations (4 cr) or	
MATH 2270 (QI) Linear Algebra (3 cr).....	3 or 4
CS 2420 (QI) Algorithms and Data Structures—CS 3.....	3
University Studies courses	9

Spring Semester (18-19 credits)

MATH 2250 Linear Algebra and Differential Equations (4 cr) or	
MATH 2280 (QI) Ordinary Differential Equations (3 cr).....	3 or 4
MATH 3310 Discrete Mathematics.....	3
CS 2450 (CI) Introduction to Software Engineering I	3
University Studies or elective courses.....	9

Junior Year (18-24 credits)

Fall Semester (9-12 credits)

MATH 4200 (CI) Foundations of Analysis	3
University Studies courses	6-9

Spring Semester (9-12 credits)

Math elective course(s)	3-6
Computer Science elective course(s)	3-6

Senior Year (33-39 credits)

Fall Semester (15-18 credits)

MATH 5210 Introduction to Analysis I	3
MATH 5610 Computational Linear Algebra and Solution of	
Systems of Equations	3
Math/Computer Science elective course(s).....	3-6
University Studies Depth or elective courses	6

Spring Semester (18-21 credits)

MATH 5620 Numerical Solution of Differential Equations	3
MATH 5710 Introduction to Probability	3
Math/Computer Science elective course(s).....	3-6
University Studies or elective courses.....	9