



WEBER STATE UNIVERSITY

MATH MAJOR COURSE REQUIREMENTS

MATHEMATICS MAJOR BS

Program Prerequisite	Not required for Mathematics and Applied Mathematics majors.
Advisement and Admission Requirements	All Mathematics majors should see the Mathematics Department to be assigned an advisor. They should meet with their advisors at least once a year to help plan their programs and check on their progress. Declare your program of study with your advisor. There are no special admission or application requirements for the Regular or Applied Mathematics emphases.
Grade Requirement	A grade of "C" or better in courses required for this major ("C-" is not acceptable), in addition to an overall 2.0 GPA and a 2.0 GPA in mathematics classes number 1210 or above.
Credit Hour Requirements	A Total of 120 credit hours are required for graduation. A total of 40 upper division credit hours are required (courses numbered 3000 and above); at least nine credit hours of upper division mathematics must be completed at WSU.
Minor Requirement	Minor required or may complete the Computer Science option

Major Course Requirements for Mathematics BS Degree

Mathematics Courses Required (33 credit hours)

- **MATH 1210** Calculus I (4) Su, F, Sp (Prerequisite - MATH 1050 and MATH 1060, or MATH 1080)
- **MATH 1220** Calculus II (4) Su, F, Sp (Prerequisite - MATH 1210)
- **MATH 2210** Calculus III (4) Su, F, Sp (Prerequisite - MATH 1220)
- **MATH 2270** Elementary Linear Algebra (3) F, Sp (Prerequisite - MATH 1220)
- **MATH 2280** Ordinary Differential Equations (3) F, Sp (Prerequisite - MATH 1220)
- **MATH 3110** Foundations of Algebra (3) Sp (Prerequisite - MATH 1210)
- **MATH 4110** Modern Algebra I (3) F (odd years) (Prerequisite - MATH 2270)
- **MATH 4120** Modern Algebra II (3) Sp (even years) (Prerequisite - MATH 4110)
*or **MATH 4320** Topology (3) F or Sp (even years) (Prerequisite - MATH 2210 and MATH 2270)
- **MATH 4210** Intro Real Analysis I (3) F (Prerequisite - MATH 2210 and MATH 2270)
- **MATH 4220** Intro Real Analysis II (3) Sp (even years) (Prerequisite - MATH 4210)

Mathematics Electives (at least 9 credit hours) Complete any upper division (3000 and above) mathematics courses (not including any required courses) so that required mathematics courses and mathematics electives total at least 42 credit hours.

Minor is required or take the following Computer Science option (11 to 12 credit hours)

- **CS 1400** Fundamentals of Programming (4) Su, F, Sp (Prerequisite waived by CS Department)
- **CS 1410** Object-Oriented Programming (4) Su, F, Sp (Prerequisite - CS 1400 and ENGL 1010 or ENGL 2020)

and choose one course from:

- **CS 2130** Computational Structures (4) Su, F, Sp (Prerequisite - CS 1400)
- **CS 2420** Intro to Data Structures and Algorithms (4) Su, F, Sp (Prereq - CS 1410, coreq MATH 1080 or 1050 and 1060)
- **CS 2450** Software Engineering I (4) Su, F, Sp (Prerequisite - CS 1410)
- **CS 2810** Computer Architecture/Organization (4) Su, F, Sp (Prerequisite - CS 1410 or CS 1400 and NET 3200)
- **MATH 4610** Numerical Analysis I (3) F (even years) (Prereq - MATH 2270 and ability to use programming language)

Support Courses Required (10 credit hours)

- **PHYS PS2210/2220** Physics for Scientists & Engineers II (5, 5) F, Sp (Co-req MATH 1210 for PHYS 2210.)

***Graduate School Preparation** It is highly recommended that students planning on graduate work in Mathematics take **MATH 3270** Linear Algebra (3) Sp odd years (Prereq - MATH 2270) and **MATH 4320** Topology (listed above as an alternate to MATH 4120).

WEBER STATE UNIVERSITY MATHEMATICS DEPARTMENT

801-626-6095 office 801-626-6427 fax math@weber.edu www.weber.edu/mathematics