

**PROGRESS TOWARD COMPLETION OF MAJOR
 B.A. in Bi-Disciplinary Mathematics**

[see back for Foundational Level Mathematics Waiver Program]

Required Courses

	Met	Do
Math 161 – Differential and Integral Calculus I (GE B4)	4 _____	_____
Math 211 – Differential and Integral Calculus II (161)	4 _____	_____
Math 470 - Mathematical and Statistical Modeling (211, UDGE B)	4 _____	_____

At least 18 additional units selected from the following list, including a minimum of 10 at the upper-division level:

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|---|---|--|
| Math 165 (Elem. Applied Stats.) 4 | Math 308 (College Geometry) 4 | Math 375 (M*A*T*H Colloquium) 1 |
| or Math 250 (Probability and Stats.) 2 | Math 310 (History of Mathematics) 4 | Math 418 (Topology) 4 |
| Math 175 (M*A*T*H Colloquium) 1 | Math 316 (Graph Theory and Combinatorics) 4 | Math 420 (Abstract Algebra II) 4 |
| Math 180 (Computing for Math & Science) 2 | or Math 416 (Adv. GT and Combinatorics) 4 | Math 430 (Linear Systems Theory) 3 |
| Math 220 (Reasoning and Proof) 4 | Math 320 (Abstract Algebra I) 4 | Math 431 (Applied Partial Differential Eqns) 4 |
| or Math 142 (Discrete Structures) 3 | Math 322 (Linear Algebra) 4 | Math 440 (Real Analysis II) 4 |
| Math 222 (Elem. Applied Linear Algebra) 3 | Math 330 (Techniques of Problem Solving) 1 | Math 445 (Mathematical Stats and OR) 4 |
| Math 241 (Lin. Algebra w/ Apps in DE) 4 | Math 340 (Real Analysis I) 4 | Math 460 (Complex Analysis) 4 |
| Math 261 (Multivariable Calculus) 4 | Math 345 (Probability Theory) 4 | Math 465 (Exp Design and Regression) 4 |
| Math 265 (Interm. Applied Stats with R) 4 | Math 352 (Numerical Analysis) 4 | Math 485 (Selected Topics) 1-3 |
| Math 306 (Number Theory) 4 | | |

Course #	units	Met	Do	Course #	units	Met	Do
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

Concentration: A minimum of 22 additional units in another program, at least 12 at the upper-division level, chosen in consultation with and approved by the Mathematics and Statistics Department Chair. Preferably these courses will be part of another major.

Dept. and Course #	Course title	units	Met	Do
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Total units in Bi-Disciplinary program **52**

Note: Even though it is possible to complete this major with only 26 upper division units, ALL students are required to complete a minimum of 40 upper division units, including GE, the major, and electives, for graduation.

**PROGRESS TOWARD COMPLETION OF MAJOR
B.A. in Bi-Disciplinary Mathematics
and Approved Subject Matter Preparation for Foundational Level Mathematics Credential**

Required Courses (Prerequisites; semester taught, if not every semester); units

- Math 161 - Differential and Integral Calculus I (GE ready; GE B4); 4
- Math 211 - Differential and Integral Calculus II (161); 4
- Math 220 – Reasoning and Proof (161 AND (one subsequent math class or CS 242)); 4
- Math 241 - Linear Algebra with Applications in Differential Equations (211); 4
- Math 250 - Probability and Statistics (161 or 300B; S); 2
- Math 306 - Number Theory (220 or 142 or 200; S); 4
- Math 308 - College Geometry (220 or 142 or 200; S); 4
- Math 310 - History of Mathematics (161; F); 4
- Math 320 - Abstract Algebra I (220; F); 4
- Math 390 - Fieldwork and Seminar: Secondary Mathematics Teaching (161; F); 2 (waiver required, not major required)
- Math 470 - Mathematical and Statistical Modeling (211; UDGE B; F); 4
- Math 490 - Capstone Seminar: Secondary Mathematics Teaching (390, Senior, S); 1
- AND two courses outside the Mathematics and Statistics Department (could be part of the concentration) that involve significant applications of mathematics approved by the Mathematics and Statistics Department Chair; 6

Unit subtotal

41-47

Concentration: A minimum of 22 additional units in another program, at least 12 at the upper-division level, chosen in consultation with and approved by the Mathematics and Statistics Department Chair. Preferably these courses will be part of another major.

Dept. and Course #	Course title	units	Met	Do
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Total units in Bi-Disciplinary program with Foundational-Level Waiver

63-69

Completion of this program permits the Department to issue a waiver of subject matter competence for the Foundational Level Mathematics Credential. The waiver replaces the two required CSET examinations as preparation for the Single Subject Credential Program.

The 2 units of Math 390 are a prerequisite for 490 and satisfy the 45-hour fieldwork entrance requirements for SSU’s Credential Program, but they do NOT count as units toward the Bi-Disciplinary Major. Undergraduates should also complete the two prerequisite courses for SSU’s Credential Program: EDUC 417 (GE UD area D) and EDSS 418. It is possible to build a concentration which includes these courses; speak with an advisor in the Mathematics and Statistics Department.