

**PROGRESS TOWARD COMPLETION OF MAJOR**  
**B.A. in Mathematics with Concentration in Bi-Disciplinary Mathematics**  
 [see back for Foundational Level Mathematics Waiver Program]

**Required Courses**

		Met	Do
Math 161 – Differential and Integral Calculus I (4 units in GE) .....	4	_____	_____
Math 211 – Differential and Integral Calculus II (161) .....	4	_____	_____

At least 22 additional units selected from the following list, including a minimum of 14 at the upper-division level:

- |  |   |   |
|--|---|---|
| Math 165 (Elem. Applied Stats.) 4            | Math 308 (College Geometry) 3               | Math 352 (Numerical Analysis) 3               |
| or Math 250 (Probability and Stats.) 3       | Math 310 (History of Mathematics) 3         | Math 360 (Intro. to Complex Variables) 3      |
| Math 180 (Computing for Math & Science) 2    | Math 316 (Graph Theory and Combinatorics) 3 | Math 375 (M*A*T*H Colloquium) 1               |
| Math 220 (Higher Mathematics: An Intro.) 3   | or Math 416 (Adv. GT and Combinatorics) 3   | Math 418 (General Topology) 3                 |
| or Math 210 (Intro. to Proof) 1              | Math 320 (Modern Algebra I) 4               | Math 420 (Modern Algebra II) 3                |
| or Math 142 (Discrete Structures) 3          | Math 322 (Linear Algebra) 3                 | Math 430 (Linear Systems Theory) 3            |
| Math 222 (Elem. Applied Linear Algebra) 3    | Math 330 (Techniques of Problem Solving) 2  | Math 431 (Partial DE's and Integral Trans.) 3 |
| Math 241 (Diff. Eq. with Linear Algebra, 4   | Math 331 (Differential Equations II) 3      | Math 440 (Real Analysis II) 3                 |
| Math 261 (Multivariable Calculus) 4          | Math 340 (Real Analysis I) 4                | Math 441 (Operations Research) 3              |
| Math 265 (Interm. Applied Stats with SPSS) 4 | Math 345 (Probability Theory) 4             | Math 470 (Mathematical Models) 3              |
| Math 306 (Number Theory) 3                   |   | Math 485 (Selected Topics) 1-3                |
|  |   | Math 490 (Capstone Seminar) 1                 |

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 Mathematics with Concentration in Bi-Disciplinary Mathematics  
and Foundational Level Mathematics Waiver Program**

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

- Math 161 - Differential and Integral Calculus I (GE ready); 4
- Math 211 - Differential and Integral Calculus II (161); 4
- Math 220 - Higher Mathematics: An Introduction (211); 3
- Math 222 - Elem. Applied Linear Algebra (160; F) or 322 Linear Algebra (220 and (222 or 241); S); 3
- Math 250 - Probability and Statistics (161 or 300B; F); 3
- Math 306 - Number Theory (220 or 142 or 200; S); 3
- Math 308 - College Geometry (220 or 142 or 200; F) 3
- Math 310 - History of Mathematics (161; ); 3
- Math 320 - Modern Algebra I (220; F); 4
- Math 390 -Fieldwork and Seminar: Secondary Mathematics Teaching (161; F) 2 (waiver required, not major required)
- Math 490 - Capstone Seminar: Secondary Mathematics Teaching (390, Senior, S); 1
- AND two courses outside the Mathematics and Statistics Department that involve significant applications of mathematics approved by the Mathematics and Statistics Department Chair; 6

**Unit subtotal ..... 39**

**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 ..... 61**

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 three prerequisite courses for SSU’s Credential Program: EDUC 417 (which counts as 3 units of upper division GE), EDSS 418 and EDSP 433. It is possible to build a concentration which includes these courses; speak with an advisor in the Mathematics and Statistics Department.