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**

Math 161 – Differential and Integral Calculus I (GE B4) ................................................................. 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 250 (Probability and Stats.) 2  
- Math 180 (Computing for Math & Science) 2  
- Math 220 (Reasoning and Proof; GE A3) 4  
- Math 210 (Intro. to Proof) 1  
- Math 142 (Discrete Structures) 3  
- Math 241 (Lin. Algebra w/ Apps in DE) 4  
- Math 261 (Multivariable Calculus) 4  
- Math 265 (Interm. Applied Stats with SPSS) 4  
- Math 306 (Number Theory) 4  
- Math 308 (College Geometry) 4  
- Math 310 (History of Mathematics) 4  
- Math 316 (Graph Theory and Combinatorics) 4  
- Math 416 (Adv. GT and Combinatorics) 4  
- Math 320 (Modern Algebra I) 4  
- Math 322 (Linear Algebra) 4  
- Math 330 (Techniques of Problem Solving) 1  
- Math 340 (Real Analysis I) 4  
- Math 345 (Probability Theory) 4  
- Math 352 (Numerical Analysis) 4  
- Math 375 (M*A*T*H Colloquium) 1  
- Math 310 (History of Mathematics) 4  
- Math 416 (Adv. GT and Combinatorics) 4  
- Math 418 (Topology) 4  
- Math 420 (Modern Algebra II) 4  
- Math 430 (Linear Systems Theory) 4  
- Math 431 (Applied Partial Differential Eqns) 4  
- Math 440 (Real Analysis II) 4  
- Math 445 (Mathematical Stats and OR) 4  
- Math 460 (Complex Analysis) 4  
- Math 470 (Mathematical Models) 4  
- Math 485 (Selected Topics) 1-3  
- Math 490 (Capstone Seminar) 1

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**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.

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**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.
Starting Fall 2014

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; 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); GE A4); 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 - 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 (could be part of the concentration) that involve significant applications of mathematics approved by the Mathematics and Statistics Department Chair; 6

Unit subtotal ........................................................................................................................................................................ 37-43

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 ........................................ 59-65

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 D1) and EDSS 418 (GE E). It is possible to build a concentration which includes these courses; speak with an advisor in the Mathematics and Statistics Department.