Bachelor of Science in Applied Mathematics Sample Schedule

A typical student planning to get a B.S. in Applied Mathematics (who in this example entered SPU in the fall of 2023) would follow the schedule below. Courses in normal print are required for the major, while courses in *italics* are potential upper-division electives. **A total of 25 credits of upper-division math electives and 20 credits of upper-division credits in the applied field are required.** In addition to completing coursework in mathematics, students must select a field of concentration in which mathematics is applied and complete coursework in both fields. Example programs of study can be found on the Mathematics Department website.

As part of the application for the major, students must submit an individual plan specifying the upper-division elective courses they intend to take. This plan should be submitted and approved before the student has completed more than two of the upper-division elective courses in either mathematics or the applied field (most likely early in the sophomore year). When submitting the plan, the student should explain why the courses in the applied field are chosen. At least three of the upper-division courses in the applied field should be mathematically oriented.

Because many upper-division courses are only offered alternating years, all students are strongly encouraged to consult with an advisor from the faculty in the Mathematics Department to carefully plan their schedule.

	Autumn	**Winter**	**Spring**
Freshman Year (23-24)	**MAT 1234** Calculus I **MAT 2360** Intro Stats for the Sciences*	**MAT 1235** Calculus II **CSC 2230** Computer Programming for Engineers**	**MAT 1236** Calculus III
Sophomore Year (24-25)	***MAT 3238*** *Vector Calculus**** or **MAT 2401** Linear Algebra	***MAT 3360*** *Probability and Statistics**** ***MAT 3237*** *Differential Equations****	**MAT 2401** Linear Algebra **MAT 2720** Discrete Mathematics
Junior Year (25-26)	Coursework in math and the applied field which may include: ***MAT 3333*** *Statistical Modeling*	Coursework in math and the applied field which may include: ***MAT 3380*** *Intro to Data Science*	***MAT 3899*** *Mathematical Writing* Coursework in math and the applied field which may include: ***MAT 3730*** *Complex Variables (alternate years)*
Senior Year (26-27)	Coursework in math and the applied field which must include: **MAT 4899** Senior Capstone Seminar and may include:	Coursework in math and the applied field which may include: ***MAT 4830*** *Mathematical Modeling (alternate years)*	Coursework in math and the applied field which may include: ***MAT 4363*** *Mathematical Statistics (alternate years)*

*MAT 2360 can be taken any quarter in the first two years but must be taken before MAT 3360 (and MAT 3333 and MAT 3380).

**CSC 2430 may replace CSC 2230 for students emphasizing computing in their applied field.

***MAT 3237, 3238, and 3360 are strongly recommended.

Note that upper-division courses in the applied field will typically have lower-division prerequisites, which are not listed in the credit total. Depending on the choice of concentration, there could be as many as 25 credits of necessary lower-division course work outside the major.