

## Bachelor of Arts in Mathematics      Sample Schedule

A typical student planning to get a B.A. in Mathematics (who in this example entered SPU in the fall of 2019) would follow the schedule below. Courses in normal print are required for the major, while courses in *italics* are upper-division electives. A total of 12 credits of upper-division math electives are required for the B.A. For students preparing to be teachers, MAT 3401 and either MAT 3333 or MAT 3360 must be included the elective courses.

Note that is possible to complete all courses for the major by the autumn quarter of the senior year. This allows for students who plan to be teachers to do their student teaching in the winter and spring of their senior year.

**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
<b>Freshman Year</b> (19-20)	<b>MAT 1234</b> Calculus I <b>MAT 2360</b> Intro Stats for the Sciences*	<b>MAT 1235</b> Calculus II	<b>MAT 1236</b> Calculus III
<b>Sophomore Year</b> (20-21)	<b>MAT 2401</b> Linear Algebra or <b>MAT 3237</b> Differential Equations	<i><b>MAT 3360</b>*** Probability and Statistics</i> <b>MAT 3237</b> Differential Equations or <b>MAT 3238</b> Vector Calculus	<b>MAT 3238</b> Vector Calculus or <b>MAT 2401</b> Linear Algebra <b>MAT 2720</b> Discrete Mathematics <i><b>MAT 4363</b> Mathematical Statistics (alternate years)</i>
<b>Junior Year</b> (21-22)	<b>MAT 3749</b> Introduction to Analysis  <i><b>MAT 3401</b> Number Theory*** (alternate years)</i>  <i><b>MAT 3380</b> Intro to Data Science</i>	<b>MAT 3751</b> Real Analysis II** (alternate years)  <i><b>MAT 4725</b> Numerical Analysis (alternate years)</i>	<b>MAT 4402</b> Modern Algebra I <b>MAT 3899</b> Mathematical Writing  <i><b>MAT 3333</b>*** Statistical Modeling (alternate years)</i>  <i><b>MAT 3730</b> Complex Variables (alternate years)</i>
<b>Senior Year</b> (22-23)	<b>MAT 4899</b> Senior Capstone Seminar  <b>MAT 3442</b> Geometry (alternate years)  <i><b>MAT 3724</b> Applied Analysis (alternate years)</i>	<b>MAT 4402</b> Modern Algebra I  <i><b>MAT 4830</b> Mathematical Modeling (alternate years)</i>	<b>MAT 4403</b> Modern Algebra II** (alternate years)  <i><b>MAT 4363</b> Mathematical Statistics (alternate years)</i>

\*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).

\*\*Either MAT 3751 or MAT 4403 is required. Students normally take whichever one is offered in their junior year. The other can be also taken to fill upper-division electives.

\*\*\*Teachers must take MAT 3401 and either MAT 3360 or MAT 3333.

Note that a number of courses are offered on alternate years. It is therefore quite important that students wishing to major in mathematics start out by taking the calculus sequence in their freshman year. Also, since a number of upper-division courses require MAT 3749 as a prerequisite, it is important to take that course during the autumn quarter of the junior year.