

Sample Plan of Study for a Two-Year Sequence

M.S. Degree in Actuarial Science at ISU (online)

(includes notes on relevant exams associated with courses)

A cohort of students will begin in Fall of 2022. The following are examples of course plans of study showing progress by semester and summer (2-year cohort progress). This plan requires approximately 2 courses each semester and 1 course each summer. You may also adapt your own progress at a slower pace (see a Four-Year Sequence plan).

First year: (total of 20 hours)

Fall 2022 (2 courses) 8 hours

- MAT 351 (4 semester hours) – Statistics and Data Analysis
 - (meets the VEE Mathematical Statistics requirement)
- MAT 383 (4 sem. hrs.) – Actuarial Models III
 - (covers the mathematics of financial economics on SOA Course IFM and CAS Course 3F)

Spring 2023 (2 courses) 8 hours

- MAT 380 (4 hrs.) – Actuarial Models I
 - (covers a substantial part of the life contingencies material of the SOA Course LTAM and the CAS Course MAS I, will cover life contingencies part of exam FAM);
- MAT 483 (4 hrs.) – Mathematical Models in Finance and Investments
 - (covers the mathematical topics from advanced actuarial examinations on finance and investments, approved for a portion of VEE Accounting and Finance).

Summer 2023 (1 course) 4 hours

- MAT 337 (4 hrs.) – (advanced linear algebra) a general mathematics course

Second year: (total of 13 hours)

Fall 2023 (2 courses, and 1 unit internship) 8 hours

- MAT 480 (4 hrs.) – Applications of Actuarial Principles
 - (covers reserving and pricing for various forms of insurance, pension funding, and some issues of insurance and pensions regulation)
- MAT 443 (3 hrs.) – Statistical Learning and Data Mining
 - (to follow mat 351)
- MAT 498 (1 hr.) – Internship (1 hours)

Spring 2024, (1 course and 1 unit internship) 4 hours

- MAT 498 – Internship (1 hour)
- 400 level course in statistics, economics, or in the MBA program, elective

Summer 2024 (1 unit internship) 1 hour

- MAT 498 – Internship (1 hour)

Total of 33 hours credit