

The Actuarial Mathematics Program is designed to provide broad training in the basic mathematics underlying the operations of private and social insurance and employee benefit plans. The courses are organized to assist the student to prepare for several of the examinations of the Casualty Actuarial Society and the Society of Actuaries.

Non-credit review classes for some of the professional actuarial examinations are organized each term; ask your actuarial advisor about the time and place of these classes. It is strongly recommended that some of these exams be passed before graduation. Summer internships are an important component of the educational program, and students are strongly encouraged to seek an internship no later than the conclusion of their junior year. Students are encouraged to take Math 422 to satisfy their upper-level writing requirement.

The major program must include at least eleven courses: 4 basic courses (II), special Actuarial Mathematics courses (III), and 2 related courses as described below (IV).

I. Prerequisites (5 courses) {must be completed with C- or better}

Instructions	Course(s)	Student Elections (enter your course selections here)
Select one of the following pairs of introductory mathematics courses :	205 & 217 215 & 217 285 & 217 295 & 296	1. _____ 2. _____
Select both of the following Econ courses:	Econ 101 & Econ 102	3. _____ 4. _____
EECS 183 or working knowledge of a high-level computer language (Fortran, C, or C++)	EECS 183 or working knowledge	5. _____

II. Basic Courses** (4 courses) {must be completed with C- or better}

Instructions	Course(s)	Student Elections (enter your course selections here)
Select one of the following Differential Equations courses:	Math 286 or Math 316	1. _____
Select the following Probability course:	Math 425	2. _____
Select the following Statistics course:	Stats 426	3. _____
Select one of the following Analysis courses:	Math 351 or Math 451	4. _____

****More advanced students, such as those who have completed Math 396, may substitute higher-level courses with the approval of a departmental advisor.**

III. Special Actuarial Courses** (5 courses) {must be completed with C- or better}

Instructions	Course(s)	Student Elections (enter your course selections here)
Select all of the following Actuarial courses:	Math 423 Math 424 Math 520 Math 523	1. _____ 2. _____ 3. _____ 4. _____ 5. _____
Select one of the following Actuarial courses:	Math 521 or Math 524 or Math 528	

****The special Actuarial Mathematics courses must include Math 423, Math 424, Math 520, Math 523, and at least one of Math 521 or 524. Note that Math 520, 523, and 528 are offered only in the Fall terms. Similarly, Math 521 and 524 are offered only in the Winter terms. Moreover, these courses have important prerequisites; thus, careful planning is essential. Students are strongly encouraged to meet with an advisor to plan their path through the major.**

IV. Advanced Courses** (2 courses) {must be completed with C- or better}

Instructions	Course(s)	Student Elections (enter your course selections here)
Select two of the following Advanced courses:	Math 422 Math 462 Math 427 Math 623 Econ 401 Econ 402 Econ 409 Econ 452 Fin 302 Fin 317 IOE 310 IOE 452 Datasci 406 Datasci 415 Datasci 451 Datasci 470 Stats 413 Stats 480 Stats 500 Stats 501 Stats 503 Stats 505 Stats 531 *Finance 408 AND 409 (1.5 credits each) *All accounting courses 300 and above	1. _____ 2. _____

****Some, but not all, of the courses numbered 300 and above offered by Accounting, Computer Science, Economics, Finance, Industrial and Operations Engineering, and Statistics are appropriate here.**

Actuarial Mathematics students interested in receiving VEE credits from the Society of Actuaries are encouraged to elect ACC 300 and FIN 302 for their related courses.

Other courses may sometimes be appropriate and in all cases **approval of an advisor in Actuarial Mathematics is required.**