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.

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:**	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 *(min grade C-)*	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)

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

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 424 and Math 425 or 525 are prerequisite to Math 520 and must be **completed with a grade of at least C-**, which in turn must precede Math 521 or 522. Since 520 is not offered every semester, careful planning is essential.*

IV.   Advanced Courses** (2 courses)

Instructions	Course(s)		Student Elections (enter your course selections here)
Select **two** of the following **Advanced** courses:	Math 422 Math 427 Math 462 Math 623 Econ 401 Econ 402 Econ 409 Econ 452 Econ 453 Econ 454 Fin 302 Fin 317 IOE 310	IOE 452 Phil 361 Phil 414 Phil 429 *Finance 408 AND 409 (1.5 credits each) *All accounting courses 300 and above, except 471 *Some Statistics courses numbered above 400	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 IOE 452 and one of Econ 452, 453, or 454 for their cognates

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