



Hope COLLEGE

DEPARTMENT OF MATHEMATICS AND STATISTICS Pre-Actuary Information

What is Actuarial Science?

Actuarial science is a field of study that uses mathematical models to put a present dollar value on future risky events. Historically, most actuaries have worked in the insurance and pensions industries. Today, actuaries are also involved in financial decision making for both individuals and companies. CareerCast recently rated actuary as the top profession based on work environment, income, outlook, job security, stress and other factors. In particular, the actuarial profession is often called the “zero-unemployment” profession because typically the demand for actuaries has outpaced supply. Visit www.beanactuary.org for more information about the actuarial profession.

Recommendations

Students must have passed the first of a series of certification exams before graduating in order to be competitive for jobs after graduation. Additionally, students who have completed Society of Actuaries certified Validation by Educational Experience (VEE) college courses, have had an internship in the actuarial field, and/or have completed subsequent actuarial certification exams are even more competitive for actuarial positions upon graduation.

First and Subsequent Exams

Students should take Probability (Math 365) and Actuarial Problem Solving (Math 395) after taking at least the first two semesters of calculus. At the end of the courses, students are ready to take the first actuarial certification examination in Probability (Exam P). After a student has passed the first exam, the department offers independent study opportunities for preparing for further exams.

Who Becomes an Actuary?

Actuaries are people who have very strong quantitative abilities, enjoy working in the business world, and who want to start their careers immediately after they attain their undergraduate degree (no post-graduate degree required).

VEE Courses

Through our department and the Department of Economics and Business, we offer all of the Society of Actuaries VEE courses. These include Mathematical Statistics (Math 362), Macroeconomics (Econ 211), Microeconomics (Econ 212), Financial Management (Bus 371), and Econometrics (Econ 306).

Internships

The Boerigter Center for Calling and Career offers connections to summer internships with firms in Grand Rapids, Chicago, Detroit, and beyond. Students may also obtain semester-long internships as part of the Chicago or Philadelphia semester programs. Students that pass their first exam will be competitive for most summer internships.



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Academic Majors and Minors

While not required for pre-actuary training, many students interested in working as an actuary choose to major in Mathematics with a Statistics Concentration. Other students elect to complete an Economics Major with a Mathematics or Statistics Minor.

What Does Hope College Offer Pre-Actuary Students?

The Hope College Department of Mathematics and Statistics offers

- Actuarial exam preparation courses
- Connections to internship opportunities
- All of the Society of Actuaries certified Validation by Educational Experience (VEE) courses
- One-on-one, customized advice from experienced faculty who care deeply about your program outcomes and future opportunities

Pre-Actuary Training List of Recommended Courses

Strongly Recommended

- Math 132 — Calculus II
- Math 365 — Introduction to Probability
- Math 395 — Actuarial Problem Solving
- Math 362 — Mathematical Statistics
- Acct 221 — Financial Accounting
- Econ 211/212 — Macro- and Micro-Economics
- Bus 371 — Financial Management
- Econ 306 — Econometrics

Recommended

- Math 219 — Statistical Methods
- Math 233 — Multivariable Calculus
- Math 243 — Linear Algebra and Differential Equations

Scan the QR Code to learn more about Pre-Actuary Training at Hope College.



Contact Professor Koh
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