Declare Actuarial Majors

Binghamton University offers two degrees in this field: BA in Actuarial Science and BS in Actuarial Science. Before you declare a major in actuarial science, you may want to think about the following questions very carefully:

- Have you shown *strong* aptitude in mathematics or quantitative skills in general? An example would be grades of your calculus courses. Usually, if you did not get a grade greater than B in calculus, it is early indicator that you will have some difficulties in the actuarial program. In extreme cases, you may suffer from studying something that you are not very good at, fail several attempts to an exam and may not even find a job related to actuarial career after graduation.
- Are you a self-motivated person? Can you work on yourself to study the materials without an instructor? Do you study because you want to become an actuary or your parents want you to do? Remember there are many advanced exams to pass even after you graduate from college.

If your answers to either questions are YES, then you may be on the right track to become an actuary.

> To declare an actuarial major, click here.

On the other hand, be aware that you can become an actuary without a degree in actuarial science. A really self-motivated person can buy a book off the bookstore and study without the class.

Major Requirements

The major requirements for each student may differ and they depend on the time that the student first entered the university. See the university bulletin for the requirements for a particular year. In case of ambiguity, the student should consult the Degree Work, the designated advisor in the math department, the director of undergraduate studies in the math department, or the Harpur advising office.

Effective for students entering the university in or after Fall 2017

The following courses are required for the BA and BS degrees.

- **Common requirements** for both BA and BS
  - Calculus and Linear Algebra: 224 and 225, either both 226 and 227 or 230, 323, 304;
  - Number Systems: 330 (it is strongly advised that this course is taken as soon as 227 or 230 is completed);
  - Computing: 329;
  - Actuarial foundation courses: 346, 447, 448;
  - Actuarial elective courses: two courses from 450, 452, 454, 455, 457, and either 458 or ECON 467;
  - Economics courses: ECON 160 and 162.
- **Additional requirements** for BS only
  - Advanced math courses: two courses from 404, 472, 478 and 479;
  - Actuarial elective courses: two additional courses from 450, 452, 454, 455, 457, and either 458 or ECON 467;
  - Advanced Economics courses: ECON 360 and 362.

> For a course to count for the degree, a **grade 'C' or better** must be obtained. See the Grade Requirements and Prerequisites section below.

There are 12.5 required 4-credit courses for the BA degree (10.5 from the Department of Mathematics and Statistics and 2 from the Department of Economics).

There are 18.5 required 4-credit courses for the BS degree (14.5 from the Department of Mathematics and Statistics and 4 from the Department of Economics).

Sample Course Lineup

The table below shows a sample schedule for a typical BS actuarial major. For BA students, fewer courses are required. Many of our majors come in with AP credits for Calculus I (224/225) and Econ 160/162. In this case, shift the schedule up by one or two semesters.

Semester	Math courses	Other courses	Notes
1	224/225	Econ 160 (vee)	
2	226/227 (or 230), 304	Econ 162 (vee)	
3	323, 346	Acct 211 (vee)	Prep for FM
4	330, 447,	Fin 311 (vee)	Take FM & Prep for P
	summer		Take P/1
5	329, 448 (vee), 450	Econ 360	Look for internship
6	452, 455	Econ 362	MLC
7	457, 478		
8	454 or 458, 479		MFE, Statistics Exam, Predictive Analytics

Courses that fulfill a VEE requirement are labeled (vee). Not all the courses above are required. Those which are not part of the major requirements are *recommended but not required*.

Grade Requirements and Prerequisites

Effective for students entering the university in or after Fall 2020

- Any math course in which a student earns a grade of C- or less is not acceptable as a prerequisite for any other course offered by the Department of Mathematics and Statistics unless stated otherwise in the course description.
- Any math course in which a student earns a grade of C- or less cannot be used to fulfill the requirements of the major or minor.
- Math courses may only be repeated once to meet the above minimum grade requirements for the major. No course for the major may be taken more than twice. Students who fail to receive a grade of C or better after two attempts in a required major course will be dropped from the major. Withdrawals do not count towards the attempt limit. Students who are seniors may petition for an exception to this policy.

- A pass grade (P) does not count toward the major or minor unless the only grade available is Pass/Fail; in this case, consent of the Department is required.
- A student who has received credit for a course may not take one of its prerequisites for credit at a later time.