

### A Typical Schedule of “Core” Actuarial Courses in the B.S. Program

Year	Fall Semester	Spring Semester
1	<b>06E:001 Principles of Microeconomics</b> 22C:016 Computer Science 22M:025 Calculus I	<b>06E:002 Principles of Macroeconomics</b> 22M:027 Introduction to Linear Algebra 22M:026 Calculus II
2	22M:055 Fundamental Properties of Spaces & Functions I 22S:130 Introduction to Mathematical Statistics I	22M:056 Fundamental Properties of Spaces & Functions II 22S:131 Introduction to Mathematical Statistics II 22S:180 Mathematics of Finance I 22S:188 Exam Prep for FM/2 <span style="color: red;">Write Exam FM/2 (3 hr)</span>
3	22S:153 Mathematical Statistics I 22S:174 Quant Methods for Actuaries 22S:188 Exam Prep for P/1 <span style="color: red;">Write Exam P/1 (3 hr)</span>	22S:154 Mathematical Statistics II 22S:175 Actuarial Models 22S:181 Life Contingencies I <b>06F:117 Corporate Finance (for VEE)</b>
4	22S:182 Life Contingencies II <b>22S:150 Regression, Time Series and Forecasting (for VEE)</b> <b>22S:183 Math of Finance II</b> <span style="color: red;">Write Exam MLC (3 hr), MFE/3F (2.5 hr)</span>	<b>22S:171 Topics in Actuarial Science</b> <b>22S:176 Credibility and Loss Distributions</b> <span style="color: red;">Write Exam C/4 (3.5 hr)</span>

Note that 22S:180 is a 4 s.h. course. The fall semester courses, 22S:182 and 22S:183, are taught five days each week, so that students can be ready to write Exams MLC and MFE in early November.

**The Casualty Actuarial Society and the Society of Actuaries have three *Validation by Educational Experience* (VEE) requirements. The economics requirement is satisfied by 6E:001 (or 6E:104) and 6E:002 (or 6E:105). The applied statistics requirement is satisfied by 22S:150 or by taking both 22S:152 and 22S:156. The corporate finance requirement is satisfied by 6F:117; the College of Business will give priority to actuarial students to take 6F:117 in spring semesters.**

**To graduate with Honors in Actuarial Science, an undergraduate student will also complete 22S:171, 22S:176 (for Exam C/4), and 22S:183 (for Exam MFE/3F).**

By taking two more mathematics courses, an undergraduate student can obtain a **second Major** in Mathematics (Program C). Two recommended courses are 22M:072 Elementary Numerical Analysis and 22M:100 Introduction to Ordinary Differential Equations. The courses 22M:100 and 6F:116 (6F:213) Futures and Options are **useful** for Exam MFE, but they are not required.

Students may want to take courses offered by the Emmett J. Vaughan Institute of Risk Management and Insurance, College of Business. The Society of Actuaries now offers a credential called *Chartered Enterprise Risk Analyst (CERA)*.

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**Program for Most M.S. Students in Actuarial Science**

Year	Fall Semester	Spring Semester
1	22S:153 Mathematical Statistics I 22S:174 Quant Methods for Actuaries 22S:180 Mathematics of Finance <b>Write Exams P/1 and FM/2</b>	22S:154 Mathematical Statistics II 22S:175 Actuarial Models 22S:181 Life Contingencies I
2	22S:150 Regression, Time Series and Forecasting 22S:182 Life Contingencies II 22S:183 Mathematics of Finance II <b>Write Exams MLC and MFE/3F</b>	22S:171 Topics in Actuarial Science 22S:176 Credibility and Loss Distributions 06F:117 Corporate Finance <b>Write Exam C/4</b>

Students who have successfully completed a course equivalent to 22S:153 Mathematical Statistics I may be able to finish the M.S. degree coursework requirements in **3** semesters.

Year	Fall Semester	Spring Semester
1	22S:154 Mathematical Statistics II 22S:174 Quant Methods for Actuaries 22S:180 Mathematics of Finance An approved elective, such as 6F:104 Corporate & Financial Risk Management <b>Write Exams P/1 and FM/2</b>	22S:175 Actuarial Models 22S:181 Life Contingencies I 22S:171 Topics in Actuarial Science 22S:176 Credibility and Loss Distributions <b>Write Exam C/4</b>
2	22S:150 Regression, Time Series and Forecasting 22S:182 Life Contingencies II 22S:183 Mathematics of Finance II 06F:213 Futures and Options <b>Write Exams MLC and MFE/3F</b>	