**Honors BSc: Specialization in Actuarial Science (20.0 courses)**

This is a guide only. For complete information, see the current Online Academic Calendar

Last updated July 11, 2016

### Year 1 (5.0 Courses)

<table>
<thead>
<tr>
<th>Course</th>
<th>Notes</th>
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<tbody>
<tr>
<td>Calculus 1000A/B or 1500A/B (or the former Calculus 1100 A/B)</td>
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<tr>
<td>Calculus 1501A/B or Calculus 1301A/B with a mark of at least 85%</td>
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<tr>
<td>Math 1600A/B or the former Linear Algebra 1600A/B</td>
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<tr>
<td>Economics 1021A/B and Economics 1022A/B</td>
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<tr>
<td>0.5 other principal course</td>
<td></td>
</tr>
<tr>
<td>2.0 options</td>
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**NOTE:** At least 1.0 course must be chosen from two of Category A, B, and C as listed in the Academic Calendar (e.g. 1.0 from A and 1.0 from C)

### Admission to Honors Specialization Module:

Complete first year (5.0 courses) with no failures including:

- Minimum average of 70% on 3.0 principal courses with no mark less than 60% in any of the 3 principal courses:
  - Calculus 1000A/B or 1100A/B or 1500A/B
  - Calculus 1501A/B or Calculus 1301A/B with a mark of at least 85%
  - Mathematics 1600A/B or the former Linear Algebra 1600A/B
  - Economics 1021A/B and Economics 1022A/B
  - 0.5 other principal course

**Recommended (but not required) first year courses:** AS1021A/B, Business 1220, Philosophy 1200

**NOTE 1:** Math 1600A/B is normally taken in Year 1. If not taken in Year 1, it must be completed in the first term of Year 2. AM1411A/B may be substituted for Math 1600 A/B.

**NOTE 2:** AM1413 may be substituted for the Calculus course requirements.

**NOTE 3:** Please note: Economics 1021A/B and Economics 1022A/B, if not taken in first year, must be completed in one of your upper years.

### Module (10.5 Courses) **

- **2.5 courses:** Actuarial Science 2553A/B, 2427A/B, 3429A/B, 3431A/B, 4426F/G.
- **4.5 courses:** Statistical Sciences 2503A/B, 2857A/B, 2858A/B, 2864A/B, 3657A/B, 3843A/B, 3858A/B, 3859A/B, 4861A/B.
- **1.5 courses:** Financial Modeling 2555A/B, 2557A/B, 3520A/B.
- **0.5 courses:** Calculus 2402A/B.
- **0.5 course from:** Actuarial Science 3424A/B or 4824A/B.
- **1.0 courses from:** Actuarial Science at the 4000 level or any other course at the 4000 level approved by the Department of Statistical and Actuarial Sciences. (Advanced Financial Modeling FM4521F/G is highly recommended & can be used here).

Calculus 2402A/B may be replaced by either (Calculus 2502A/B and Calculus 2503A/B) or (Calculus 2502A/B and Mathematics 2123A/B). When such a replacement occurs, the module will include 11.0 courses.

### Options (4.5 Courses)

Any additional Major or Minor module may be taken. You must complete this additional module with a minimum mark of 60%.

**Notes:**

- Courses common to more than one module taken require substitution
- If you're considering completing another module, the other module must be from a different department

### Progression Requirements

- Minimum cumulative modular average of 70%
- Minimum mark of 60% in each course of module
- Passing grade in each course

### Graduation Requirements

**Breadth Requirement:**

- At least 1.0 course from each of Category A, B, and C as listed in the Academic Calendar.

**Essay Requirement:**

- 2.0 essay courses (1.0 must be senior course). Any Actuarial, Financial Modelling or Statistical Sciences essay course taken can be used towards this requirement.

**Senior Courses:**

- 13.0 senior courses (numbered 2000-4999)

**Average Requirements:**

- Minimum overall average of 65% on the 20.0 courses
- Minimum cumulative modular average of 70% and a minimum mark of 60% in each course of the module
- Passing grade in each course
- Minimum cumulative modular average of 60% in any additional Major or Minor module completed

**Residency Requirement:**

- Minimum of 15.0 courses must be completed at Western University, as well as the majority of your modular courses be counted toward the 1.0 Actuarial Science course at the 4000 level

To graduate with a Bsc, a total of at least 11.0 courses must be taken from the Faculty of Science.

### Department Recommendation for order in which modular courses should be taken

#### Second Year

- **AS2553A** Mathematics of Financial Analysis
- **FM2555A** Corporate Finance
- **Calculus 2402A** Calculus with Analysis for Statistics
- **SS2857A** Probability and Statistics I
- **AS2427B** Life Contingencies I
- **FM2557B** Financial Markets & Investments
- **SS2503B** Advanced Mathematics for Statistical Applications
- **SS2858B** Probability & Statistics II
- **SS2864B** Statistical Programming*

* May be taken in 3rd year

#### Third Year

- **AS3429A** Life Contingencies II
- **SS3657A** Intermediate Probability
- **SS 3843A** Introduction to Study Design
- **SS3859A** Regression
- **AS3424B** Loss Models I**
- **AS3431B** Life Contingencies II
- **FM3520B** Financial Modelling I
- **SS3858B** Mathematical Statistics

** One of AS3424A/B or 4824A/B is required for the module

#### Fourth Year

- **AS4426F** Actuarial Practice I
- **SS4861B** Time Series
- 0.5 of **AS3424A/B or 4824A/B** (if not previously completed)
- 1.0 Actuarial Science courses at the 4000 level, or other 4000 level dept. approved course. FM4521A/B is highly recommended and may be counted toward the 1.0 Actuarial Science course at the 4000 level

** The following course subject/name/number changes were made effective September 2014. Equivalency is automatic when determining the fulfillment of modular requirements:

- **AM2503** → **SS2503**; **AS2555** → **FM2555**; **AS2557** → **FM2557**; **SS3520** → **FM3520**; **SS4521** → **FM4521**; **SS4998** → **FM4998**