Major in Actuarial Science Module (20.0 courses)

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

Last updated July 18, 2018

<table>
<thead>
<tr>
<th>Year 1 (5.0 Courses)</th>
<th>Graduation Requirements</th>
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<tbody>
<tr>
<td>Calculus 1000A/B or 1500A/B</td>
<td><strong>Breadth Requirement:</strong></td>
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<tr>
<td>Calculus 1501A/B (recommended) or Calculus 1301A/B with a mark of 85%+</td>
<td>• At least 1.0 course from each of Category A, B, and C as listed in the Academic Calendar</td>
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<tr>
<td>Mathematics 1600A/B</td>
<td><strong>Essay Requirement:</strong></td>
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<tr>
<td>Economics 1021A/B and Economics 1022A/B</td>
<td>• 2.0 essay courses (1.0 must be senior course). Note that any modular essay course taken can be used towards this requirement</td>
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<tr>
<td>0.5 other principal course</td>
<td><strong>Senior Courses:</strong></td>
</tr>
<tr>
<td>2.0 options</td>
<td>• 13.0 senior courses (numbered 2000-4999)</td>
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<td><strong>NOTE:</strong> 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)</td>
<td><strong>Average Requirements-for a general degree</strong> <strong>:</strong></td>
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<tr>
<td><strong>Admission to the Major Module:</strong></td>
<td>• Minimum overall average of 60% on the 20.0 courses</td>
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<tr>
<td>Complete first year (5.0 courses) with no failures including:</td>
<td>• Minimum cumulative modular average of 60% in the major module</td>
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<tr>
<td>• Minimum grade of 60% in each of:</td>
<td>• Passing grade in each course</td>
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<tr>
<td>o Calculus 1000A/B or 1100A/B or 1500A/B</td>
<td>• Minimum cumulative modular average of 60% in any additional Major or Minor module completed</td>
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<tr>
<td>o Calculus 1501A/B or Calculus 1301A/B with a mark of at least 85%</td>
<td><strong>Residency Requirement:</strong></td>
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<tr>
<td>o Mathematics 1600A/B or the former Linear Algebra 1600A/B</td>
<td>• The majority of your modular courses must be completed at Western. Please check the academic calendar for any other residency requirements.</td>
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<tr>
<td>o Economics 1021A/B and Economics 1022A/B</td>
<td><strong>Note:</strong></td>
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<tr>
<td>o 0.5 other principal course</td>
<td>• ** honors degree (with double major) requires a 70% average within each of the 2 modules, with no Ds in any required course</td>
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</table>

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

**NOTE 1:** If not taken in first year, Math 1600A/B must be completed prior to the second term of second year.

**NOTE 2:** AM1413 may be substituted for the 1.0 Calculus course requirements and AM1411 A/B may be substituted for Mathematics 1600 A/B.

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

**MODULE (6.0 courses) **

1.5 courses: Actuarial Science 2553A/B, 2427A/B, 3429A/B.
0.5 courses: FM2555A.
2.5 courses: Statistical Sciences 2503A/B, 2857A/B, 2858A/B, 2864A/B, 3657A/B.
0.5 courses: Calculus 2402A/B.

1.0 additional Actuarial Sciences courses at the 3000 level or higher.
Statistical Sciences 4960F/G can be used to meet this requirement.

** **Calculus 2402A/B may be replaced by (Calculus 2502A/B + Calculus 2503A/B). When such a replacement occurs, the module will include 6.5 courses.

**OPTIONS (9.0) Courses** - 4 year general/honors degree only

These may also include any additional major or minor module in the Academic Calendar, excluding Financial Modelling.

If taking another module that includes an intro stats course (anti-req to S2858), please consult with other department regarding course substitution. Also, you must complete any additional module with a minimum 60% average.

**Notes:**

Courses common to more than one module taken require substitution.
However, if both modules are from faculty of science, up to 1.0 courses **explicitly required for each module** can be counted towards both modules.

2nd Degree students should meet with a faculty counsellor to review other degree requirements (e.g. other than modular courses needed).

**Progression Requirements**

• Satisfy the progression requirements for the University (Level 1 and Level II as described in the Academic Calendar) if completing a 4 year degree

• See graduation requirements for an honors degree (with double major)

• **Note:** most modular course pre-requisites stipulate min. grade of 60%.

**Department Recommendation for order in which modular courses should be taken:**

**Second Year**

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

* Can take in 3rd year

**Third Year**

AS3429A Life Contingencies II
SS3657A Intermediate Probability

**Fourth Year**

1.0 courses: Any Actuarial Science courses at the 3000+ level or Stats 4960F/G

(Note: Students completing a double major can complete these courses in the same year as the recommended modular 3rd year courses)