

Honors Specialization in Actuarial Science Module (20.0 courses)

This is a guide only. For complete information, see the [online Academic Calendar](#)

Last updated September 16, 2022

Year 1 (5.0 Courses)	Graduation Requirements
<p>Calculus 1000A/B or 1500A/B</p> <p>Calculus 1501A/B (recommended) or Calculus 1301A/B with a mark of 85%+</p> <p>Math 1600A/B</p> <p>Economics 1021A/B and Economics 1022A/B</p> <p>0.5 other principal course</p> <p>2.0 options</p> <p>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)</p>	<p>Breadth Requirement:</p> <ul style="list-style-type: none"> At least 1.0 course from each of Category A, B, and C as listed in the Academic Calendar. <p>Essay Requirement:</p> <ul style="list-style-type: none"> 2.0 essay courses (1.0 must be senior course). Note that any modular essay course taken can be used towards this requirement <p>Senior Courses:</p> <ul style="list-style-type: none"> 13.0 senior courses (numbered 2000-4999) <p>Average Requirements:</p> <ul style="list-style-type: none"> 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 <p>Residency Requirement:</p> <ul style="list-style-type: none"> The majority of your modular courses must be completed at Western. Please check academic calendar for other residency requirements. <p>Note: To graduate with an Honors BSc, at least 11.0 of your 20.0 courses must be taken from the Faculty of Science.</p>
<p>Admission to Honors Specialization Module: Complete first year (5.0 courses) with no failures including:</p> <ul style="list-style-type: none"> Minimum average of 70% on 3.0 principal courses with no mark less than 60% in any of the 3 principal courses: <ul style="list-style-type: none"> Calculus 1000A/B or 1500A/B Calculus 1501A/B or Calculus 1301A/B with a mark of at least 85% Mathematics 1600A/B Economics 1021A/B and Economics 1022A/B 0.5 other principal course <p>Recommended (but not required) first year courses: AS1021A/B, Business 1220, Philosophy 1200</p> <p>NOTE 1: If not taken in first year, Math 1600A/B must be completed prior to the second term of second year.</p> <p>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.</p> <p>NOTE 3: Economics 1021A/B and Economics 1022A/B, if not taken in first year, must be completed in one of your upper years.</p>	<p>Department Recommendation for order in which modular courses should be taken</p> <p>Second Year</p> <p>AS2553A Mathematics of Finance FM2555A Corporate Finance Calculus 2402A Calculus with Analysis for Statistics SS2857A Probability and Statistics I</p> <p>AS2427B Long Term Actuarial Mathematics I FM2557B Financial Markets & Investments SS2503B Advanced Mathematics for Statistical Applications SS2858B Probability & Statistics II SS2864B Statistical Programming*</p> <p>* May be taken in fall term of 3rd year (2864 now offered both terms)</p>
<p>MODULE (10.5 Courses) # 3.5 courses: Actuarial Science 2553A/B, 2427A/B, 3424A/B,3429A/B, 3431A/B, 4426F/G, 4824A/B. 4.5 courses: Statistical Sciences 2503A/B, 2857A/B, 2858A/B, 2864A/B, 3657A/B, 3858A/B, 3859A/B, 4861A/B, DS 3000A/B. 1.5 courses: Financial Modeling 2555A/B, 2557A/B, 3520A/B. 0.5 courses: Calculus 2402A/B ** 0.5 courses Any additional Actuarial Science, Financial Modelling or Statistical Sciences course at the 4000 level</p> <p>**Calculus 2402A/B may be replaced by (Calculus 2502A/B + Calculus 2503A/B). When such a replacement occurs, the module will include 11.0 courses.</p> <p># Module shown is as per current calendar year. You may complete module using current calendar year <u>or</u> using calendar in effect in year of module entry.</p>	<p>Third Year</p> <p>AS3429A Long Term Actuarial Mathematics II FM3520A Financial Modeling I SS3657A Intermediate Probability SS3859A Regression</p> <p>AS3424B Short Term Actuarial Mathematics I(Loss Models) AS3431B Long Term Actuarial Mathematics III DS3000B Introduction to Machine Learning SS3858B Mathematical Statistics</p>
<p>OPTIONS (4.5 Courses)</p> <p>This module may not be combined with any other module offered by the Department of Statistical and Actuarial Sciences.</p> <p>If taking another module that includes an intro stats course (anti-req to S2858), please consult with other department regarding course substitution.</p> <p>Also, you must complete any additional module with a minimum 60% average.</p> <p>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 <u>explicitly required for each module</u> 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).</p>	<p>Fourth Year</p> <p>AS4426F Actuarial Practice I AS4824A Short Term Actuarial Mathematics II SS4861B Time Series</p> <p>0.5 course: Any additional Actuarial Science, Financial Modeling or Statistical Sciences Course at the 4000 level</p>
<p>Progression Requirements</p> <ul style="list-style-type: none"> Minimum cumulative modular average of 70% Minimum mark of 60% in each course of module Passing grade in each course 	