Honors Specialization in Financial Modeling Module (20.0 courses)

This is a guide only. For complete information, see the <u>Online Academic Calendar</u>

Last updated June 22, 2019

Year 1 (5.0 Courses)

Calculus 1000A/B or 1500A/B

Calculus 1501A/B (**recommended)** or Calculus 1301A/B with a mark of 85%+

Math 1600 A/B

1.5 other principal courses

2.0 options

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 1500A/B
  - Calculus 1501A/B or Calculus 1301A/B with a mark of at least 85%
  - Mathematics 1600 A/B
  - 1.5 other principal course

Recommended (but not required) first year courses;
Economics 1021A/B and 1022A/B, Computer Science 1026 A/B and/or Computer Science 1027A/B, 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.

MODULE (9.5 Courses) @

3.5 courses: Statistical Sciences 2503A/B, 2857A/B, 2858A/B, 2864A/B, 3657A/B, 3858A/B, 4861A/B.
0.5 courses: Actuarial Science 2553A/B.
3.0 courses: Financial Modelling 2555A/B, 2557A/B, 3520A/B, 3613A/B, 3817A/B, 4521A/B.
2.0 courses: Calculus 2402A/B**, Applied Math 2811B, 2814F/G, 3815A/B
0.5 courses from: Applied Math 3611F/G, 4613A/B##, 4617A/B#, 4999Z, Financial Modeling 4998F/G/Z, Statistical Sciences 4960F/G, 4999F/G/Z or Actuarial Science 4997F/G/Z.

**Calculus 2402A/B may be replaced by (Calculus 2502A/B + Calculus 2503A/B). When such a replacement occurs, the module will include 10.0 courses.

\# May be offered only in odd-numbered academic years.
\#\# May be offered only in even-numbered academic years.

@ 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

OPTIONS (5.5 Courses)

These may also include any additional module *other than Actuarial Science.*

If taking another module that includes an intro stats course (anti-req to SS2858), 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, a maximum of 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
- Minimum cumulative modular average of 70%
- Minimum mark of 60% in each course of module
- Passing grade in each optional 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). Note that any modular 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:
- The majority of your modular courses must be completed at Western University. Please check academic calendar for other residency requirements.

Note:

To graduate with an Honors BSc, at least 11.0 of your 20.0 courses must be taken from the Faculty of Science

Department Recommendation for order in which <u>modular</u> courses should be taken:

Second Year

AS2553A   Mathematics of Finance
FM2555A   Corporate Finance
Cal2402A   Calculus with Analysis for Statistics
SS2857A   Probability and Statistics I

FM2557B   Financial Markets and Investments
SS2503B   Advanced Mathematics with Statistical Applications
AM2811B   Linear Algebra II
AM2814G   Numerical Analysis *
SS2858B   Probability and Statistics II
SS2864B   Statistical Programming*

*can be taken in 3rd year(Stats 2864 now offered in both terms)

Third Year

AM3815A   Partial Differential Equations I
SS3657A   Intermediate Probability
FM3520A   Financial Modelling I

FM3613B   Mathematics of Financial Options**
FM3817B   Optimization Methods for Financial Modelling**
SS3858B   Mathematical Statistics
Any 2000 level modular courses not yet completed

**can be taken in 4th year

Fourth Year

FM4521B   Advanced Financial Modelling
SS4861B   Time Series
0.5 courses from the "0.5 modular course selection list"