Honors Specialization in Data Science Module (20.0 courses)

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

Last updated: March 14th, 2022

Admission Requirements

- Complete first year (5.0 coursers) with no failures.
- Minimum average of 70% on 3.0 principal courses with no mark less than 60% **in any of the 3.0 principal courses**

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) for a 4 yr degree

Graduation Requirements (cont.)

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. 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.

Typical stream

	A. Fall term (September to December)	B. Winter term (January to April)
First Year	CA 1000: Calculus I[1]	CA 1501: Calculus II[3]
	MA 1600: Linear Algebra I	CS 1027: CS Fundamentals II
	CS 1026: CS Fundamentals I[2]	other principal course (e.g., DS1000)
	Electives / Breadth requirements	
Second Year	CS 2210: Data Structures and Algorithms	DS 2000: Intro to Data Science
	CS 2211: Systems Programming	CS 2212: Intro Software Engineering
	CS 2214: Discrete Structures	SS 2864: Statistical Programming
	SS 2857: Probability and Statistics I	SS 2858: Probability and Statistics II
Third Year	DS 3000: Intro to Machine Learning	CS 3340: Analysis of Algorithms
	CS 3319: Databases I	SS 3860: Generalized Linear Models
	SS 3843: Intro to Study Design	Optional Modular course
	SS 3859: Regression	
Fourth Year	DS 4999 Z: Thesis[4]	Optional Modular course
	SS 4850: Advanced Data Analysis	Optional Modular course
	Optional Modular course	

Legend:
- ■ Required first year principal courses
- ■ Modular course (10.0 courses)
- ■ Electives or other modules

Additional Notes:

1. or Calculus 1500A/B
2. or Data Science 1200A/B
3. or Calculus 1301A/B with a mark of >85%
4. New requirement. Run across Fall and Winter term. Substitute with CS4490Z, SS 4844, SS4999Z if taken before 22/23.

Students interested in Statistics graduate programs should also take SS3657A & SS3858B.

Optional Modular courses

1.5 from
- CS 3346: Artificial Intelligence I
- CS 4442: Artificial Intelligence II
- CS 3377: Software Project Management
- CS 4411: Databases II
- CS 4416: Data Science II
- CS 4417: Unstructured Data
- CS 4418: Intro to Visual Analytics
- SS 4860: Advanced Regression
- SS 4864: Advanced Statistical Computing
- SS 4960: Business Skill for Data Science

0.5 from
- Any 4000-level course from DS, CS, or SS.