STATISTICS CONCENTRATION (SUPPLEMENTARY MINOR) (18 CREDITS)

Offered by: Mathematics and Statistics (Faculty of Science)
Degree: Bachelor of Arts
Program credit weight: 18

Program Description

Students may complete this program with a minimum of 18 credits or a maximum of 20 credits.

Taken together with the B.A.; Major Concentration in Statistics, this program constitutes an equivalent of the B.Sc.; Major in Statistics program offered by the Faculty of Science. It provides training in statistics, with a mathematical core and basic training in computing. With satisfactory performance in an appropriate selection of courses, these two programs can lead to the accreditation "A.Stat" from the Statistical Society of Canada, which is regarded as the entry level requirement for a statistician practicing in Canada.

This supplementary minor concentration is open only to students registered in the B.A.; Major Concentration in Statistics. Taken together, these two programs constitute a program equivalent to the B.Sc.; Major in Statistics offered by the Faculty of Science. No course overlap between the B.A.; Major Concentration in Statistics and the B.A.; Supplementary Minor Concentration in Statistics is permitted.

Note that according to the Faculty of Arts Multi-Track System degree requirements, option C, students registered in the B.A.; Supplementary Minor Concentration in Statistics must also complete another minor concentration in a discipline other than Mathematics and Statistics. For more information about the Multi-Track System options, please refer to Faculty of Arts regulations under "Faculty Degree Requirements," "About Program Requirements," and "Departmental Programs."

This supplementary minor concentration is open only to students registered in the B.A.; Major Concentration in Statistics. Taken together, these two programs constitute a program equivalent to the B.Sc.; Major in Statistics offered by the Faculty of Science. No course overlap between the B.A.; Major Concentration in Statistics and the B.A.; Supplementary Minor Concentration in Statistics is permitted.

Note that according to the Faculty of Arts Multi-Track System degree requirements, option C, students registered in the B.A.; Supplementary Minor Concentration in Statistics must also complete another minor concentration in a discipline other than Mathematics and Statistics. For more information about the Multi-Track System options, please refer to Faculty of Arts regulations under "Faculty Degree Requirements," "About Program Requirements," and "Departmental Programs."

Guidelines for Course Selection

Students are strongly advised to complete all required courses and all Part I and Part II complementary courses by the end of U2, except for MATH 423 Applied Regression..

Where appropriate, Honours courses may be substituted for equivalent courses. Students planning to pursue graduate studies are encouraged to make such substitutions, and to take MATH 556 Mathematical Statistics 1. and MATH 557 Mathematical Statistics 2. as complementary courses.

Note: For information about Fall 2025 and Winter 2026 course offerings, please check back on May 8, 2025. Until then, the "Terms offered" field will appear blank for most courses while the class schedule is being finalized.

Required Courses (6 credits)

Expand allContract all

Course	Title	Credits
MATH 243	Analysis 2.	3
MATH 423	Applied Regression.[1]	3

[1] If MATH 423 Applied Regression. has been taken as part of the B.A.; Major Concentration in Statistics, another 3-credit complementary course from Part II must be taken.

Complementary Courses (12-14 credits)

Part I: 3 credits selected from[1]:

Expand allContract all

Course	Title	Credits
COMP 202	Foundations of Programming.	3
COMP 204	Computer Programming for Life Sciences.	3
COMP 208	Computer Programming for Physical Sciences and Engineering .	3
COMP 250	Introduction to Computer Science.	3

[1] Students who have sufficient knowledge in programming are encouraged to take COMP 250 Introduction to Computer Science..

Part II: 3 credits selected from:

Expand allContract all

Course	Title	Credits
COMP 350	Numerical Computing.[1]	3
MATH 314	Advanced Calculus.	3
MATH 315	Ordinary Differential Equations.	3
MATH 316	Complex Variables.	3
MATH 317	Numerical Analysis.[1]	3
MATH 326	Nonlinear Dynamics and Chaos.	3
MATH 327	Matrix Numerical Analysis.	3
MATH 329	Theory of Interest.	3
MATH 340	Discrete Mathematics.	3
MATH 350	Honours Discrete Mathematics .	3
MATH 378	Nonlinear Optimization .	3
MATH 417	Linear Optimization.	3

MATH 430	Mathematical Finance.	3
MATH 463	Convex Optimization.	3

[1] Students can take either MATH 317 Numerical Analysis. or COMP 350 Numerical Computing., but not both.

Part III: 6-8 credits selected from:

Expand allContract all

Course	Title	Credits
COMP 551	Applied Machine Learning.	4
MATH 308	Fundamentals of Statistical Learning.	3
MATH 410	Majors Project.[1]	3
MATH 420	Independent Study.[1]	3
MATH 427	Statistical Quality Control.	3
MATH 447	Introduction to Stochastic Processes.	3
MATH 523	Generalized Linear Models.	4
MATH 524	Nonparametric Statistics.	4
MATH 525	Sampling Theory and Applications.	4
MATH 527D1	Statistical Data Science Practicum.[1]	3
MATH 527D2	Statistical Data Science Practicum.[1]	3
MATH 545	Introduction to Time Series Analysis.	4
MATH 556	Mathematical Statistics 1.	4
MATH 557	Mathematical Statistics 2.	4
MATH 558	Design of Experiments.	4
MATH 559	Bayesian Theory and Methods.	4
MATH 598	Topics in Probability and Statistics.	4
WCOM 314	Communicating Science.[1]	3

[1] Students can take at most one of MATH 410 Majors Project., MATH 420 Independent Study., MATH 527D1 Statistical Data Science Practicum./MATH 571D2 and WCOM 314 Communicating Science..