

**Dynamic Schedule:** Visit [Minerva Class Schedule](#)[https://horizon.mcgill.ca/pban1/bwckschd.p\\_disp\\_dyn\\_sched](https://horizon.mcgill.ca/pban1/bwckschd.p_disp_dyn_sched) for course dates & times.McGill.ca (<https://www.mcgill.ca>) / Overview (/study/2022-2023/) / All Courses (/study/2022-2023/courses/search)

# MATH 308 Fundamentals of Statistical Learning (3 credits)

Offered by: Mathematics and Statistics ([Faculty of Science \(/study/2022-2023/faculties/science/\)](#))

## Overview

Mathematics & Statistics (Sci) : Theory and application of various techniques for the exploration and analysis of multivariate data: principal component analysis, correspondence analysis, and other visualization and dimensionality reduction techniques; supervised and unsupervised learning; linear discriminant analysis, and clustering techniques. Data applications using appropriate software.

**Terms: Winter 2023**

Instructors: Alam, Shomoita (Winter)

- Prerequisite(s): [MATH 208 \(/study/2022-2023/courses/math-208\)](#), one of [MATH 223 \(/study/2022-2023/courses/math-223\)](#), [MATH 236 \(/study/2022-2023/courses/math-236\)](#), [MATH 247 \(/study/2022-2023/courses/math-247\)](#), [MATH 251 \(/study/2022-2023/courses/math-251\)](#); [MATH 323 \(/study/2022-2023/courses/math-323\)](#) or [MATH 356 \(/study/2022-2023/courses/math-356\)](#).

*This course may be used as a required or complementary course in the following programs:*

[Bachelor of Arts \(B.A.\) - Major Concentration Mathematics \(/https://www.mcgill.ca/study/2022-2023/faculties/arts/undergraduate/programs/bachelor-arts-ba-major-concentration-mathematics\)](#)

[Bachelor of Arts \(B.A.\) - Major Concentration Mathematics \(/https://www.mcgill.ca/study/2022-2023/faculties/basc/undergraduate/programs/bachelor-arts-ba-major-concentration-mathematics\)](#)

[Bachelor of Arts \(B.A.\) - Major Concentration Statistics \(/https://www.mcgill.ca/study/2022-2023/faculties/arts/undergraduate/programs/bachelor-arts-ba-major-concentration-statistics\)](#)

[Bachelor of Arts \(B.A.\) - Major Concentration Statistics \(/https://www.mcgill.ca/study/2022-2023/faculties/basc/undergraduate/programs/bachelor-arts-](#)

[ba-major-concentration-statistics](#)

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[Bachelor of Arts \(B.A.\) - Minor Concentration Statistics](#)  
(<https://www.mcgill.ca/study/2022-2023/faculties/arts/undergraduate/programs/bachelor-arts-ba-minor-concentration-statistics>)

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[Bachelor of Arts \(B.A.\) - Minor Concentration Statistics](#)  
(<https://www.mcgill.ca/study/2022-2023/faculties/basc/undergraduate/programs/bachelor-arts-ba-minor-concentration-statistics>)

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[Bachelor of Arts \(B.A.\) - Supplementary Minor Concentration in Mathematics](#)  
(<https://www.mcgill.ca/study/2022-2023/faculties/arts/undergraduate/programs/bachelor-arts-ba-supplementary-minor-concentration-mathematics>)

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[Bachelor of Arts \(B.A.\) - Supplementary Minor Concentration Statistics](#)  
(<https://www.mcgill.ca/study/2022-2023/faculties/arts/undergraduate/programs/bachelor-arts-ba-supplementary-minor-concentration-statistics>)

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[Bachelor of Arts \(B.A.\) - Supplementary Minor Concentration Statistics](#)  
(<https://www.mcgill.ca/study/2022-2023/faculties/basc/undergraduate/programs/bachelor-arts-ba-supplementary-minor-concentration-statistics>)

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[Bachelor of Science \(B.Sc.\) - Honours Applied Mathematics](#)  
(<https://www.mcgill.ca/study/2022-2023/faculties/science/undergraduate/programs/bachelor-science-bsc-honours-applied-mathematics>)

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[Bachelor of Science \(B.Sc.\) - Honours Applied Mathematics](#)  
(<https://www.mcgill.ca/study/2022-2023/faculties/arts/undergraduate/programs/bachelor-science-bsc-honours-applied-mathematics>)

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Bachelor of Science (B.Sc.) -  
Honours Mathematics  
(<https://www.mcgill.ca/study/2022-2023/faculties/arts/undergraduate/programs/bachelor-science-bsc-honours-mathematics>)

Bachelor of Science (B.Sc.) -  
Honours Mathematics  
(<https://www.mcgill.ca/study/2022-2023/faculties/science/undergraduate/programs/bachelor-science-bsc-honours-mathematics>)

Bachelor of Science (B.Sc.) -  
Honours Probability and  
Statistics  
(<https://www.mcgill.ca/study/2022-2023/faculties/science/undergraduate/programs/bachelor-science-bsc-honours-probability-and-statistics>)

Bachelor of Science (B.Sc.) -  
Honours Probability and  
Statistics  
(<https://www.mcgill.ca/study/2022-2023/faculties/arts/undergraduate/programs/bachelor-science-bsc-honours-probability-and-statistics>)

Bachelor of Science (B.Sc.) -  
Liberal Program - Core  
Science Component  
Mathematics  
(<https://www.mcgill.ca/study/2022-2023/faculties/science/undergraduate/programs/bachelor-science-bsc-liberal-program-core-science-component-mathematics>)

Bachelor of Science (B.Sc.) -  
Liberal Program - Core  
Science Component Statistics  
(<https://www.mcgill.ca/study/2022-2023/faculties/science/undergraduate/programs/bachelor-science-bsc-liberal-program-core-science-component-statistics>)

Bachelor of Science (B.Sc.) -  
Major Mathematics  
(<https://www.mcgill.ca/study/2022-2023/faculties/science/undergraduate/programs/bachelor-science-bsc-major-mathematics>)

[Bachelor of Science \(B.Sc.\) -  
Major Statistics](https://www.mcgill.ca/study/2022-2023/faculties/science/undergraduate/programs/bachelor-science-bsc-major-statistics)  
(<https://www.mcgill.ca/study/2022-2023/faculties/science/undergraduate/programs/bachelor-science-bsc-major-statistics>)

[Bachelor of Science \(B.Sc.\) -  
Major Statistics and Computer  
Science](https://www.mcgill.ca/study/2022-2023/faculties/science/undergraduate/programs/bachelor-science-bsc-major-statistics-and-computer-science)  
(<https://www.mcgill.ca/study/2022-2023/faculties/science/undergraduate/programs/bachelor-science-bsc-major-statistics-and-computer-science>)

[Bachelor of Science \(B.Sc.\) -  
Minor Statistics](https://www.mcgill.ca/study/2022-2023/faculties/science/undergraduate/programs/bachelor-science-bsc-minor-statistics)  
(<https://www.mcgill.ca/study/2022-2023/faculties/science/undergraduate/programs/bachelor-science-bsc-minor-statistics>)



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