

**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 559 Bayesian Theory and Methods (4 credits)

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

## Overview

Mathematics & Statistics (Sci) : Subjective probability, Bayesian statistical inference and decision making, de Finetti's representation. Bayesian parametric methods, optimal decisions, conjugate models, methods of prior specification and elicitation, approximation methods. Hierarchical models. Computational approaches to inference, Markov chain Monte Carlo methods, Metropolis—Hastings. Nonparametric Bayesian inference.

**Terms: This course is not scheduled for the 2022-2023 academic year.**

Instructors: There are no professors associated with this course for the 2022-2023 academic year.

- Prerequisite: [MATH 324 \(/study/2022-2023/courses/math-324/\)](#), [MATH 357 \(/study/2022-2023/courses/math-357/\)](#), [MATH 557 \(/study/2022-2023/courses/math-557/\)](#), or equivalent, and [MATH 208 \(/study/2022-2023/courses/math-208/\)](#) or equivalent.

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

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

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

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

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

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

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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 Probability and  
Statistics](#)  
(<https://www.mcgill.ca/study/2022-2023/faculties/science/undergraduate/programs/bachelor-science-bsc-honours-probability-and-statistics>)

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[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>)

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

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[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>)

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

[aduate/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)

[aduate/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)

[Minor Statistics](https://www.mcgill.ca/study/2022-2023/faculties/science/undergraduate/programs/bachelor-science-bsc-minor-statistics)

[aduate/programs/bachelor-science-bsc-minor-statistics\)](https://www.mcgill.ca/study/2022-2023/faculties/science/undergraduate/programs/bachelor-science-bsc-minor-statistics)

[aduate/programs/bachelor-science-bsc-minor-statistics\)](https://www.mcgill.ca/study/2022-2023/faculties/science/undergraduate/programs/bachelor-science-bsc-minor-statistics)



Visit *Minerva Class Schedule* for course dates & times


Class Schedule

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