

**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 558 Design of Experiments (4 credits)

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

## Overview

Mathematics & Statistics (Sci) : Introduction to concepts in statistically designed experiments. Randomization and replication. Completely randomized designs. Simple linear model and analysis of variance. Introduction to blocking. Orthogonal block designs. Models and analysis for block designs. Factorial designs and their analysis. Row-column designs. Latin squares. Model and analysis for fixed row and column effects. Split-plot designs, model and analysis. Relations and operations on factors. Orthogonal factors. Orthogonal decomposition. Orthogonal plot structures. Hasse diagrams. Applications to real data and ethical issues.

**Terms: Winter 2023**

Instructors: Sajjad, Alia (Winter)

- Prerequisites: [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 \(/study/2022-2023/courses/math-251/\)](#), or equivalent. [MATH 208 \(/study/2022-2023/courses/math-208/\)](#) or equivalent. [MATH 324 \(/study/2022-2023/courses/math-324/\)](#), [MATH 357 \(/study/2022-2023/courses/math-357/\)](#), 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 \(/https://www.mcgill.ca/study/2022-2023/faculties/arts/undergraduate/programs/bachelor-arts-ba-major-concentration-statistics/\)](#)

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

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

[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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2023/faculties/basc/undergrad  
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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/undergradu  
ate/programs/bachelor-arts-  
ba-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/undergrad  
uate/programs/bachelor-arts-  
ba-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/undergr  
aduate/programs/bachelor-  
science-bsc-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/undergradu  
ate/programs/bachelor-  
science-bsc-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/undergr  
aduate/programs/bachelor-  
science-bsc-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/undergr  
aduate/programs/bachelor-  
science-bsc-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>

[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>




Visit *Minerva Class Schedule* for **course dates & times**

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