Dynamic Schedule: Visit **Minerva Class Schedule (https://horizon.mcgill.ca/pban1/bwckschd.p_disp_dyn_sched)** for *course dates & times.*

COMP 551 Applied Machine Learning (4 credits)

Offered by: Computer Science (Faculty of Science (/study/2022-2023/faculties/science))

Overview

Computer Science (Sci) : Selected topics in machine learning and data mining, including clustering, neural networks, support vector machines, decision trees. Methods include feature selection and dimensionality reduction, error estimation and empirical validation, algorithm design and parallelization, and handling of large data sets. Emphasis on good methods and practices for deployment of real systems.

Terms: Fall 2022, Winter 2023

Instructors: Li, Yue (Fall) Rabbany, Reihaneh (Winter)

- Prerequisite(s): MATH 323 (/study/2022-2023/courses/math-323) or ECSE 205 (/study/2022-2023/courses/ecse-205) or ECSE 305 (/study/2022-2023/courses/ecse-305) or equivalent
- Restriction(s): Not open to students who have taken or are taking COMP 451 (/study/2022-2023/courses/comp-451). Not open to students who have taken or are taking ECSE 551 (/study/2022-2023/courses/ecse-551).
- Some background in Artificial Intelligence is recommended, e.g. COMP-424 (/study/2022-2023/courses/comp-424) or ECSE-526 (/study/2022-2023/courses/ecse-526), but not required.

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

Bachelor Engineering (B.Eng.) - Co-op in Software Engineering (https://www.mcgill.ca/study/2022-2023/faculties/engineering/undergraduate/programs/bachelor-engineering-beng-co-op-software-engineering)

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.) - Supplementary Minor Concentration Statistics (https://www.mcgill.ca/study/2022-2023/faculties/arts/undergraduate/programs/bachelor-arts-ba-supplementary-minor-concentration-statistics)

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)

Bachelor of Arts and Science (B.A. & Sc.) - Honours Cognitive Science (https://www.mcgill.ca/study/2022-2023/faculties/basc/undergraduate/programs/bachelor-arts-and-science-ba-sc-honours-cognitive-science)

Bachelor of Arts and Science (B.A. & Sc.) - Interfaculty Program Cognitive Science (https://www.mcgill.ca/study/2022-2023/faculties/basc/undergraduate/programs/bachelor-arts-and-science-ba-sc-interfaculty-program-cognitive-science)

Bachelor of Engineering (B.Eng.) - Bioengineering (https://www.mcgill.ca/study/2022-2023/faculties/engineering/undergraduate/programs/bachelor-engineering-beng-bioengineering)

Bachelor of Engineering (B.Eng.) - Computer Engineering (https://www.mcgill.ca/study/2022-2023/faculties/engineering/undergraduate/programs/bachelor-engineering-beng-computer-engineering)

Bachelor of Engineering (B.Eng.) - Electrical Engineering (https://www.mcgill.ca/study/2022-2023/faculties/engineering/undergraduate/programs/bachelor

-engineering-beng-electrical-engineering)

Bachelor of Engineering (B.Eng.) - Honours Electrical Engineering (https://www.mcgill.ca/study/2022-2023/faculties/engineering/undergraduate/programs/bachelor-engineering-beng-honours-electrical-engineering)

Bachelor of Engineering (B.Eng.) - Minor Applied Artificial Intelligence (22-25 credits) (https://www.mcgill.ca/study/2022-2023/faculties/engineering/undergraduate/programs/bachelor-engineering-beng-minor-applied-artificial-intelligence-22-25-credits)

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.) - Honours Software Engineering (https://www.mcgill.ca/study/2022-2023/faculties/science/undergraduate/programs/bachelor-science-bsc-honours-software-engineering)

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)

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 Computer Science - Computer Games (https://www.mcgill.ca/study/2022-2023/faculties/science/undergraduate/programs/bachelor-science-bsc-major-computer-science-computer-games)

Bachelor of Science (B.Sc.) - Major Software Engineering (https://www.mcgill.ca/study/2022-2023/faculties/science/undergraduate/programs/bachelor-science-bsc-major-software-engineering)

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)

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

Doctor of Philosophy (Ph.D.) Quantitative Life Sciences (https://www.mcgill.ca/study/2022-2023/faculties/interfaculty/graduate/programs/doctor-philosophy-phd-quantitative-life-sciences)

Doctor of Philosophy (Ph.D.) Quantitative Life Sciences (https://www.mcgill.ca/study/2022-2023/faculties/interfaculty/graduate/programs/doctor-philosophy-phd-quantitative-life-sciences)

Master of Science (M.Sc.) Computer Science (Non-Thesis) (https://www.mcgill.ca/study/2022-2023/faculties/science/graduate/programs/master-science-msc-computer-science-non-thesis)

Master of Science (M.Sc.) Computer Science (Thesis) (https://www.mcgill.ca/study/2022-2023/faculties/science/graduate/programs/master-science-msc-computer-science-thesis)

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

Class Schedule (https://horizon.mcgill.ca/pban1/bwckschd.p_disp_dyn_sched

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