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# PHYS 559 Advanced Statistical Mechanics (3 credits)

Offered by: Physics ([Faculty of Science \(/study/2022-2023/faculties/science\)](/study/2022-2023/faculties/science))

## Overview

Physics : Scattering and structure factors. Review of thermodynamics and statistical mechanics; correlation functions (static); mean field theory; critical phenomena; broken symmetry; fluctuations, roughening.

### Terms: Fall 2022

Instructors: Coish, Bill (Fall)

- Fall
- 3 hours lectures
- Restriction: U3 Honours students, graduate students, or permission of the instructor

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

[Bachelor of Engineering \(B.Eng.\) - Minor Physics](#)  
(<https://www.mcgill.ca/study/2022-2023/faculties/engineering/undergraduate/programs/bachelor-engineering-beng-minor-physics>)

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

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

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

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[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>)



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