

Syllabus:

Quantum Field Theory I

Instructor: Prof. Guy D. Moore
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Office hours: Whenever I'm in my office

Course Lectures: Monday, Wednesday 4:05–5:25PM
Rutherford 114

Course Book: Srednicki, “Quantum Field Theory”

Course webpage: <http://www.physics.mcgill.ca/~guymoore/ph610>

Course Grade: 100% Homework

Intended Syllabus: We will follow Srednicki fairly closely, covering chapters 1-15, 22, 33-49, 54-59, and (time permitting) 16-19, 51, 62. The course will consist exclusively of chalkboard lectures, readings, and homeworks.

- What is field theory; scalar theory
- Path integrals and generating functionals
- Interactions and Feynman rules
- Spinors and Dirac equation
- Scattering in QED
- Loops and renormalization (beginning)

Homeworks will be assigned every 1–2 weeks.

McGill University values academic integrity. Therefore, all students must understand the meaning and consequences of cheating, plagiarism, and other academic offences under the Code of Student Conduct and Disciplinary Procedures: see www.mcgill.ca/students/srr/honest/ for more information. In accord with McGill University's Charter of Students' Rights, students in this course have the right to submit in English or in French any written work that is to be graded.