

McMaster University
Department of Mathematics and Statistics
Stats 4D03 – Intermediate Probability Theory

Instructor: Aaron Childs

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Office Hours: Tuesday, Wednesday, and Friday 10:30-11:20, Thursday 9:30-10:20.

COURSE INFORMATION

Lectures: Tuesday, Wednesday, and Friday 9:30-10:30 p.m. in Burke Science B139

Topics Covered:

- Chapter 1 - Probability Spaces (Sections 1-4)
- Chapter 2 - Integration (Sections 1-6)
- Chapter 3 - Independence and Product Measures (Sections 1-4)
- Chapter 4 – Convergence of Random Variables and Measurable Functions (Sections 1,3,4)
- Chapter 5 – Conditional Expectation and an Introduction to Martingales (Sections 1,2,4-7)
- Chapter 6 – An Introduction to Weak Convergence (as time permits)

Textbook: *An Introduction to Measure and Probability* by J.C. Taylor, published by Springer-Verlag.

Assignments: There will be six assignments, due on the following dates at the start of class:

- Assignment #1: Friday, January 21
- Assignment #2: Friday, February 4
- Assignment #3: Friday, February 18
- Assignment #4: Friday, March 10
- Assignment #5: Friday, March 24
- Assignment #6: Friday, April 7

Tests: The tests will be on the following dates:

- Test #1: Friday, February 11 in class
- Test #2: Friday, March 17 in class

Course Evaluation:

Assignments:	20%
Test 1:	20%
Test 2:	20%
Final Exam:	40%

Academic Honesty: Attention is drawn to *Statement on Academic Ethics* and the *Senate Resolutions on Academic Dishonesty* as found in the *Senate Policy Statements* distributed at registration and available in the Senate Office. Any student who infringes one of these resolutions will be treated according to the published policy.