

**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.