Department of Mathematics & Statistics
Concordia University

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MATH 467 (MAST 669/MAST 837), Sec. D
Measure Theory
Winter 2019

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Instructor: Dr. G. Dafni, Office: LB 927-15 (SGW), Phone: 848-2424, Ext. 3216
Email: galia.dafni@concordia.ca
Webpage: http://mypage.concordia.ca/mathstat/gdafni/

Office Hours: _____

Textbook: *Real Analysis*, by H.L. Royden (3rd or 4th Edition).

Other Textbooks: *Real Analysis, Measure Theory and Integration*, by E.M. Stein and R. Shakarchi, Princeton University Press, 2005.

Functional Analysis, by E.M. Stein and R. Shakarchi, Princeton University Press, Macmillan, 2011.

Topics: The main part of the course will consist of the following topics taken from the text (Chapters 3-6, 11, 12 in Royden, 3rd Edition):

- Lebesgue measure
- Lebesgue integral
- Differentiation and integration
- Lebesgue (L^p) spaces
- Abstract measure theory

Additional topics may be covered if time permits.

Assignments: Homework will be assigned approximately once every two weeks, posted on Moodle. It is the student's responsibility to find out the homework assignment and turn in the homework on time. **Late homework will not be accepted.**

All assignments must be handwritten and must be submitted on paper, not electronically. Understanding of the homework is essential to success on the exams.

Midterm Exam: There will be an in-class test in week 7 or 8. The exact date of the exam will be announced in class at least a week in advance.

Final Exam: To be announced.

Evaluation: Homework 15%, Midterm exam 25%, Final exam 60%.
Graduate students will be required to do additional or alternative work, to be determined.

If the grading scheme for this course includes graded assignments, a reasonable and representative subset of each assignment may be graded. Students will not be told in advance which subset of the assigned problems will be marked and should therefore attempt all assigned problems.

Academic Integrity and the Academic Code of Conduct
This course is governed by Concordia University's policies on Academic Integrity and the Academic Code of Conduct as set forth in the Undergraduate Calendar and the Graduate Calendar. Students are expected to familiarize themselves with these policies and conduct themselves accordingly. "Concordia University has several resources available to students to better understand and uphold academic integrity. Concordia's website on academic integrity can be found at the following address, which also includes links to each Faculty and the School of Graduate Studies: concordia.ca/students/academic-integrity." [Undergraduate Calendar, Sec 17.10.2]