

MATHEMATICS 435
Department of Mathematics and Statistics
University of Victoria
FALL 2017

INSTRUCTOR: A. R. Sourour sourour@uvic.ca
Office: Room A553 in DTB

OFFICE HOURS: Tuesdays and Fridays 4:00 - 5:00

TEXTBOOKS: 1. R. Bass, *Real analysis for graduate students*. Required.
Available for free download from <http://bass.math.uconn.edu/real.html>

2. Recommended - very highly: Royden, *Real Analysis*, second or third edition. This is out of print, but you can get it from amazon or other online sources. The Library's copy will be on reserve. The second edition is the best. Do **not** buy the 4th edition (Fitzgerald and Royden)

COURSE CONTENT: Measures and integrals with emphasis on Lebesgue Integration; Differentiation; L^p spaces. A glimpse into Hilbert space and Fourier Analysis.

GENERAL COURSE POLICIES: Regulations common to all courses offered by the Department may be found on:
www.uvic.ca/science/math-statistics/current-students/undergraduate/course-policies/index.php

EVALUATION: Assignments (about five)	75%
Term test 1 - 31 Oct 2017 - in class	10%
Term test 2 - 01 Dec 2017 - in class	15%

- Assignments will be assigned and collected - roughly every two weeks. Late assignments will not be accepted. You may discuss the homework questions and answers with your colleagues but every one should write the solutions in her/his own words and should understand the solutions and should be able to explain them. You must reference any external source precisely. Failure to do this constitutes a breach of academic integrity,

ACADEMIC CONCESSIONS: In case of illness, injury or personal or family affliction, see the University Calendar regarding academic concessions and adequate documentation. If you miss any component for these reasons, you will be given a make-up replacement. If you miss the Dec test you need to apply to the Records Office for academic concession.

Historical Landmarks:

- Henri Lebesgue, *Intégrale, longueur, aire*. 1902.
- F. Riesz, *Sur les systèmes orthogonaux des fonctions*, Comptes Rendus de l'Académie des Sciences de Paris, **144** (1907) 615-619.
- E. Fischer, *Sur la convergence de moyenne*, Comptes Rendus de l'Académie des Sciences de Paris, **144** (1907) 1022-1024.