

MATH 364
Analysis I
Winter 2020

Instructor: Dr. G. Dafni, Office: LB 927-15 (SGW), Phone: 514-848-2424, Ext. 3216
Email: galia.dafni@concordia.ca

Lectures: Wednesdays, 6:00PM - 8:15PM, FG B080

Office hours: _____

Textbook: *Introductory Real Analysis*, by F. Dangelo & M. Seyfried (on reserve at Webster Library). Scanned chapters accessible through Course Reserves from the Moodle site.

References: *Calculus*, 3rd Edition, by M. Spivak (this and other references will be available on reserve at Webster library).

Introduction to Real Analysis by William F. Trench; offered online by the American Institute of Mathematics (AIM). Download at <http://aimath.org/textbooks/approved-textbooks/trench/>

Notes on Real Analysis by L. Larson. Available online: <http://www.math.louisville.edu/~lee/RealAnalysis/IntroRealAnal.pdf>

Assignments: Homework will be assigned approximately every week, on Moodle. In the case of an absence, 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.**

You should submit your homework **handwritten on paper**, not electronically, and provide complete arguments. Some assigned problems may not be marked. Understanding of the homework is essential to success on the exams.

Students must follow the University's policy on Academic Integrity: <http://www.concordia.ca/students/academic-integrity.html>

Midterm Test: There will be a midterm test scheduled in the 7th or 8th week of classes. The exact date of the exam will be announced in class at least a week in advance. **There will be no make-up midterm exam.**

Final Exam: To be scheduled by the exams office. Students should plan to be present for the entire exam period and are responsible for finding out the time and location of the exam when it is announced. Any conflicts or other problems should be reported to the exams office in a timely manner.

Grading: 10% Assignments, 30% Midterm Test, 60% Final Exam
OR
10% Assignments, 90% Final Exam

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.

Topics: Time frame is approximate and is meant to include the midterm test.

| Weeks | Topics | Chapters |
|-------|--|--------------|
| 1-3 | Elements of Proofs and Set Theory. The Real Numbers. | Chapters 1-2 |
| 4-6 | Sequences | Chapter 3 |
| 7-9 | Limits of Functions and Continuity. | Chapter 4 |
| 10-11 | Derivatives | Chapter 5 |
| 12 | Elements of Topology | Chapter 11 |
| 13 | REVIEW | |

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]