Carleton University, School of Mathematics and Statistics
Math 1800A • Introduction to Mathematical Reasoning
Course Outline • Summer Term 2020

INSTRUCTOR:	Brandon Fodden *brandon.fodden@carleton.ca* Online office hours by appointment
TA:	Jessica Malek *jessicamalek@cmail.carleton.ca* Online office hours by appointment
TUTORIAL:	Online, Tuesdays 5:05 – 6:25 p.m.
PREREQUISITES:	Ontario Grade 12 Mathematics: Advanced Functions, or MATH 0005, or equivalent.
OPTIONAL TEXTS:	*Mathematical Proofs: A Transition to Advanced Mathematics (third or fourth edition)* by Chartrand, Polimeni & Zhang *Book of Proof (second edition)* by Hammack (free online)
GRADING SCHEME:	Quizzes (best 5 out of 6) 75% Final exam 25% (see notes below for more details)

Topics: Sets; logic; methods of mathematical proof including direct, contraposition, contradiction, and induction; equivalence relations; functions; finite and infinite cardinality.

Pregnancy or religious obligation: Write me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, see the Student Guide.

Students with disabilities requiring academic accommodations in this course must register with the Paul Menton Centre for Students with Disabilities (PMC) for a formal evaluation of disability-related needs. Documented disabilities include but are not limited to mobility/physical impairments, specific Learning Disabilities (LD), psychiatric/psychological disabilities, sensory disabilities, Attention Deficit Hyperactivity Disorder (ADHD), and chronic medical conditions. Registered PMC students are required to contact the PMC every term to have a Letter of Accommodation sent to the Instructor by their Coordinator. In addition, students are expected to confirm their need for accommodation with the Instructor no later than two weeks before the first assignment is due or the first in-class test/midterm. If you require accommodations only for formally scheduled exam(s) in this course, you must request accommodations by the official accommodation deadline published on the PMC website.

COMMENTS:

- All times given in this document refer to the EDT (eastern daylight time) timezone, in which Ottawa is located.
- Lectures will be posted by every Tuesday and Thursday (perhaps earlier).
- Assignments based on the material for each lecture will be posted every Tuesday and Thursday, but they are not to be handed in. Full solutions to the assignments will be posted soon after the assignments are posted.
- A live online tutorial runs every Tuesday from 5:05 to 6:25 p.m. A set of tutorial problems will be posted every Thursday, covering the material from that week's lectures. During the tutorial session on the following Tuesday, your TA will work out selected tutorial problems and answer your questions.
- Quizzes will take place on Tuesdays after the tutorial, and will be on the material covered on the assignments posted the previous week. **The quiz questions will be posted on Tuesdays at 7:00 p.m., and the quiz is due by 7:45 p.m.** The quiz is designed to take 30 minutes or less to write, the remaining time provided for scanning and uploading your work. You may access the course material that has been posted to cuLearn during the quiz, as well as your notes and textbooks.
- Quizzes must be submitted as a single PDF file. There are numerous free scanning apps for phones that will allow you to do this. Quizzes must be legible in order to be graded. The quizzes must be written at the scheduled time; no provision is made for make-up quizzes. If you must miss a test or quiz for a valid reason, please contact me.
- Your lowest quiz mark is dropped. Each of the remaining five quizzes are worth 15% of your final grade.
- The final exam is to be scheduled by the University. The date and time will be announced by the university at some point during the term (the exam will be held some time between August 17 and August 23). The exam will posted and submitted online.
- If it benefits your grade, your final exam mark will replace the lowest two written quiz grades that are contributing towards your mark (it cannot replace a zero for a missed quiz).
- Students who miss the final exam may be eligible for a deferred exam. Application for a deferral must be made, with appropriate documentation, to the Registrar's Office.
- Plagiarism and cheating will not be tolerated and can lead to severe penalties. Note that the dean's office has recently increased the penalties for cheating. Your quizzes and exam must be your own work, and you must not communicate with others about the quiz and exam while they are running. This includes the use of "homework help" websites, whether the questions are posted by you or another student.
- Remember that in the compressed summer term, one class is equal to one week of normal classes! Take care not to fall behind.
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EXTRA HELP:
There is help available for this course. It is up to you to seek any help you may need. Please do not hesitate to take advantage of the help being offered – that's why it's there! Here is a summary of the help available:

- Class tutorial (see front of sheet)
- Your TA (office hour or email)
- My office hours, or email
- MS-LAP (The Math & Stats Learning Assistance Program is a free of charge program that provides learning support and solutions to homework questions through assistance videos. These services are available on cuLearn. MS-LAP gives students tools to succeed while explaining step-by-step particular problem strategies and associated theory.)

SCHEDULE:

Week One July 2	No quiz Lecture 1 posted Assignment 1 posted Tutorial questions 1 posted
Week Two July 7 & 9	Quiz 1 on Tuesday Lectures 2a and 2b posted Assignments 2a and 2b posted Tutorial questions 2 posted
Week Three July 14 & 16	Quiz 2 on Tuesday Lectures 3a and 3b posted Assignments 3a and 3b posted Tutorial questions 3 posted
Week Four July 21 & 23	Quiz 3 on Tuesday Lectures 4a and 4b posted Assignments 4a and 4b posted Tutorial questions 4 posted
Week Five July 28 & 30	Quiz 4 on Tuesday Lectures 5a and 5b posted Assignments 5a and 5b posted Tutorial questions 5 posted
Week Six August 4 & 6	Quiz 5 on Tuesday Lectures 6a and 6b posted Assignments 6a and 6b posted Tutorial questions 6 posted
Week Seven August 11 & 13	Quiz 6 on Tuesday Lectures 7a and 7b posted Assignments 7a and 7b posted