University of Manitoba
Faculty of Science
Department of Mathematics

1   Course Details

Course Title & Number	MATH 2080 A01: Introduction to Analysis
Number of Credit Hours	3
Class Times	MWF 10:30-11:20 Buller 315
Course Website	http://server.math.umanitoba.ca/~claya/math2080_2017.html
Location for tutorials	Monday 1:30-2:20, B01 in Biological Sciences 401 and B02 in Allen 319
Pre-Requisites	[MATH 1232 (C) or MATH 1690 (C) or MATH 1700 (B) or MATH 1701 (B) or MATH 1710 (B)] and [MATH 1220 (C) or MATH 1300 (B) or MATH 1301 (B)] and MATH 1240 (C)

2   Instructor Contact Information

Instructor(s) Name	Adam Clay
Office Location	473 Machray Hall
Office Hours or Availability	Thursdays 8:30am-11:20am, by appointment if necessary
Office Phone Number	204-474-6849 (Not recommended)
Email	Adam.Clay@umanitoba.ca (Recommended)

3   Required material

The textbook for the class is Introduction to Analysis, 5th Edition, by Edward D. Gaughan. ISBN-10: 0821847872, ISBN-13: 9780821847879. This textbook is required as all assignments and tutorial material will be sourced from this book.

4   Course Outline

This course will cover Chapters 0, 1, 2, 3, and possibly Sections 4.1, 4.2 and 4.3 of Introduction to Analysis. There is a detailed schedule on the class website that shows which sections will be covered on which dates, as well as assignment due dates, quiz dates and test dates.

Students are expected to learn all definitions included in the sections listed above, as well as the statements all named theorems. By the end of the term every student should achieve a mastery of basic ϵ - δ proofs, basic set-theoretic proofs, and should be able to prove novel analytical claims which fall within the scope of the course but which are not explicitly covered in classes or labs. In particular, students must be able to write clear and concise proofs.

5 Attendance Policy

Students are expected to attend all classes and all labs, though attendance will not be taken. There will be quizzes in some labs and no makeup quizzes will be offered.

6 Course Evaluation Methods

There will be five assignments, five quizzes, two tests, and a final exam. The assignments are due in class **at the beginning of class.** The quizzes will be held in the labs. Anyone who registers late for the class should speak to me about a possible extension for the due date for the first assignment.

   The quizzes will consist of relatively straightforward questions, but will deal with material covered in the most recent lectures and with concepts directly from the text (e.g. definitions, theorem statements). Their purpose is to ensure that everyone is up to speed in their studies, not to test depth of understanding or ability.

Due Date	Assessment Tool	Value of Final Grade
Friday, Oct 13, 2017	Test 1	15%
Friday, Nov 10, 2017	Test 2	15%
Sept 18, Oct 2, Oct 23, Nov 15, Nov 27	Assignments	15%
Sept 25, Oct 16, Oct 30, Nov 20, Dec 4	Quizzes	15%
TBA	Final Exam	40%

7 Grading

The following letter grade cutoffs are preliminary and may be adjusted downwards at the end of the course (e.g. an A+ may become 90 and above).

Letter Grade	Minimum percentage to guarantee	Final Grade Point
A+	95	4.5
A	86	4.0
B+	80	3.5
B	72	3.0
C+	65	2.5
C	60	2.0
D	50	1.0

8 Assignment Grading Times

Assignments will always be returned before the next assignment is due.

9   Schedule of tests and quizzes and assignments

Assignments are due at the **beginning of class** on the following days: September 18, October 2, October 23, November 13, November 27. Quizzes will be held in the labs on the following days: September 25, October 16, October 30, November 20, December 4. See the table above and tentative schedule posted on the class website.

10   Policy on missed or late assignments, quizzes, test

- Any missed quiz will be assigned a grade of zero, the top four of your five quiz grades will be used to compute your final score.

- There will be no deferred or make-up tests. If a student misses a test and is able to provide (within one week of the test) a medical note or other appropriate documentation excusing their absence, then the weight of that test will be moved onto the final exam.

- Late assignments will not be accepted and will be assigned a grade of zero. Plagiarized assignments, assignments copied from classmates or other academically suspect material will be dealt with according to university academic misconduct policies.

11   Course Technology

The main resource for this class is the website:

http://server.math.umanitoba.ca/~claya/math2080_2017.html. We will not be using UM learn.

It is the general University of Manitoba policy that all technology resources are to be used in a responsible, efficient, ethical and legal manner. The student can use all technology in classroom setting only for educational purposes approved by instructor and/or the University of Manitoba Student Accessibility Services. Student should not participate in personal direct electronic messaging / posting activities (e-mail, texting, video or voice chat, wikis, blogs, social networking (e.g. Facebook) online and offline "gaming" during scheduled class time. If student is on call (emergency) the student should switch his/her cell phone on vibrate mode and leave the classroom before using it. (© S Kondrashov. Used with permission)

12   Recording Class Lectures

Adam Clay and the University of Manitoba hold copyright over the course materials, presentations and lectures which form part of this course. No audio or video recording of lectures or presentations is allowed in any format, openly or surreptitiously, in whole or in part without permission Adam Clay. Course materials (both paper and digital) are for the participant's private study and research.

13   Student Accessibility Services

If you are a student with a disability, please contact SAS for academic accommodation supports and services such as note-taking, interpreting, assistive technology and exam accommodations. Students who have, or think they may have, a disability (e.g. mental illness, learning, medical, hearing, injury-related, visual) are invited to contact SAS to arrange a confidential consultation.

> Student Accessibility Services http://umanitoba.ca/student/saa/accessibility/
> 520 University Centre
> 204 474 7423
> Student_accessibility@umanitoba.ca

14   Academic Integrity

The Department of Mathematics, the Faculty of Science and the University of Manitoba all regard acts of academic dishonesty in quizzes, tests, examinations or assignments as serious offences and may assess a variety of penalties depending on the nature of the offence.

Acts of academic dishonesty include bringing unauthorized materials into a test or exam, copying from another student, plagiarism and examination personation. Students are advised to read section 7 (Academic Integrity) and section 4.2.8 (Examinations: Personations) in the General Academic Regulations and Requirements of the current Undergraduate Calendar. Note, in particular, that cell phones and pagers are explicitly listed as unauthorized materials, and hence may not be present during tests or examinations.

Penalties for violation include being assigned a grade of zero on a test or assignment, being assigned a grade of "F" in a course, compulsory withdrawal from a course or program, suspension from a course/program/faculty or even expulsion from the University. For specific details about the nature of penalties that may be assessed upon conviction of an act of academic dishonesty, students are referred to University Policy 1202 (Student Discipline Bylaw) and to the Department of Mathematics policy concerning minimum penalties for acts of academic dishonesty.

All students are advised to familiarize themselves with the Student Discipline Bylaw, which is printed in its entirety in the Student Guide, and is also available on-line or through the Office of the University Secretary. Minimum penalties assessed by the Department of Mathematics for acts of academic dishonesty are available on the Department of Mathematics web-page.