MATH 1010
Differential and Integral Calculus II

Summer 2016, May 9th to June 24th
MW 18:05-20:45, LSC Common Area C206

Instructor: Lucas Mol
Electronic Mail Address: Lucas.Mol@dal.ca
Tentative Office Hours: Monday and Wednesday 10-12 in the Math Learning Centre (Chase 119), or by appointment or drop-in. Do not hesitate to email me to set up a time that we can meet.

Any changes to this syllabus will be made with sufficient notice and discussed in class, and will be reflected on the course webpage on Brightspace.

Course Description: A continuation of the study of caculus with topics including: Riemann sums, techniques of integration, elementary differential equations and applications, parametric equations and polar coordinates, sequences and series, Taylor series.
Prerequisite: MATH 1000.03, or MATH 1215.03 with a grade of B or better

Credit Hours: 3

Text: *Single Variable Calculus: Early Transcendentals*, 8th Edition (although you will probably be fine with an earlier edition)

Author: James Stewart

Course Webpage: The course webpage can be found on Brightspace.

Grade Distribution:

Online Assignments (Due Mondays)	10%
In-Class Activities	10%
Midterm 1: Monday, June 1st, 2016	20%
Final Exam: Wednesday, June 22nd, 2016	60%

Letter Grade Distribution:

[90-100]	A+	[75-80)	B+	[65-70)	C+	[50-55)	D
[85-90)	A	[73-77)	B	[60-65)	C	[0-50)	F
[80-85)	A-	[70-73)	B-	[55-60)	C-		

Assignments

- Assignments can be accessed directly through Brightspace. The assignments are in a system called MAA WebWork.
- There will be a short assignment on each section of the textbook that we cover. Assignments will be due weekly at 6pm on Monday.
- I encourage you to work with others on assignments. WebWork problems are randomized to prevent blatant copying.

In-class Activities

- An in-class activity will take place after each section of the textbook is covered.
- Each activity will consist of one or two short problems on the material from the preceding lecture.
- Students are free to work together, use their notes, and ask for help from the instructor.

Midterm and Exam

- The midterm and the final exam will take place in class.
- The midterm will be 75 minutes in length. The exam will be 3 hours in length.
- The exam will be cumulative.
- Nothing but writing utensils and erasers are allowed to be used on tests.
- A doctor's note will be required in order to reschedule a test for health reasons. Such a note MUST indicate that you were deemed unfit to write the test on the scheduled date, and not merely that you saw the doctor. If you know that you are unable to attend a test for some other reason that you feel is legitimate, please let me know as far in advance as possible. No makeup tests will be given for poor performance alone.

Notes

- Class notes will be posted on Brightspace for reference. I may cover some material in class that is not contained in these class notes.

Electronic Mail

- I do not answer mathematical questions by email. If you have a question about an assignment problem or something that we covered in class and you are unable to make it to my office hours, please send me an email to set up an appointment so that we can go over the problem together in person. This saves a lot of time and confusion for both of us in the long run.
- Please feel free to email me with administrative concerns.
- Please take the time to formulate a thoughtful email and give me any information that I might need. For example, if you would like to meet, please suggest some times that you are available to meet in your initial email. This will speed along our communication.

Tentative Schedule

May 9	Chapter 5 Summary §6.1 Areas Between Curves
May 11	§7.1 Integration by Parts §7.2 Trigonometric Integrals §7.3 Trigonometric Substitution
May 13	*Last day to change and add classes*
May 16	§7.4 Integration of Rational Functions by Partial Fractions §7.5 Strategy for Integration
May 18	§7.7 Approximate Integration §7.8 Improper Integrals §8.1 Arc Length
May 20	*Last day to drop without "W"* *Last day to change from audit to credit and vice versa*
May 23	VICTORIA DAY - no class
May 25	§10.1 Curves Defined by Parametric Equations §10.2 Calculus with Parametric Curves
May 30	§10.3 Polar Coordinates §10.4 Areas and Lengths in Polar Coordinates
June 1	**Midterm** §11.1 Sequences
June 6	*Last day to drop with "W"* §11.2 Series §11.3 The Integral Test and Estimates of Sums
June 8	§11.4 The Comparison Tests §11.5 Alternating Series
June 13	§11.6 Absolute Convergence and the Ratio and Root Tests §11.7 Strategy for Testing Series
June 15	§11.8 Power Series §11.9 Representations of Functions as Power Series
June 20	§11.10 Taylor & Maclaurin Series §11.11 Applications of Taylor Polynomials
June 22	**Final Exam**

If we have extra time, we will likely cover some material from §9.3 and §9.5 on differential equations. It is cool

DALHOUSIE UNIVERSITY

ACCOMMODATION POLICY FOR STUDENTS

Students may request accommodation as a result of barriers related to disability, religious obligation, or any characteristic protected under Canadian Human Rights legislation. The full text of Dalhousie's Student Accommodation Policy can be accessed here: http://www.dal.ca/dept/university_secretariat/policies/academic/student-accommodation-policy-wef-sep--1--2014.html

Students who require accommodation for classroom participation or the writing of tests and exams should make their request to the **Advising and Access Services Centre (AASC)** prior to or at the outset of the regular academic year. More information and the ***Request for Accommodation*** form are available at www.dal.ca/access.

ACADEMIC INTEGRITY

Academic integrity, with its embodied values, is seen as a foundation of Dalhousie University. It is the responsibility of all students to be familiar with behaviours and practices associated with academic integrity. Instructors are required to forward any suspected cases of plagiarism or other forms of academic cheating to the Academic Integrity Officer for their Faculty.

The Academic Integrity website (http://academicintegrity.dal.ca) provides students and faculty with information on plagiarism and other forms of academic dishonesty, and has resources to help students succeed honestly. The full text of Dalhousie's ***Policy on Intellectual Honesty*** and ***Faculty Discipline Procedures*** is available here:

http://www.dal.ca/dept/university_secretariat/academic-integrity/academic-policies.html

STUDENT CODE OF CONDUCT

Dalhousie University has a student code of conduct, and it is expected that students will adhere to the code during their participation in lectures and other activities associated with this course. In general:

"The University treats students as adults free to organize their own personal lives, behaviour and associations subject only to the law, and to University regulations that are necessary to protect

- the integrity and proper functioning of the academic and non – academic programs and activities of the University or its faculties, schools or departments;
- the peaceful and safe enjoyment of University facilities by other members of the University and the public;
- the freedom of members of the University to participate reasonably in the programs of the University and in activities on the University's premises;
- the property of the University or its members."

The full text of the code can be found here:
http://www.dal.ca/dept/university_secretariat/policies/student-life/code-of-student-conduct.html

COPYRIGHT

All members of the Dalhousie community are expected to comply with their obligations under Canadian copyright law. Dalhousie copyright policies and guidelines, including our Fair Dealing Guidelines, are available at http://www.dal.ca/dept/copyrightoffice.html. Copyright questions should be directed to the Copyright Office at copyright.office@dal.ca.

DALHOUSIE UNIVERSITY

SERVICES AVAILABLE TO STUDENTS

The following campus services are available to help students develop skills in library research, scientific writing, and effective study habits. The services are available to all Dalhousie students and, unless noted otherwise, are free.

Service	Support Provided	Location	Contact
General Academic Advising	Help with - understanding degree requirements and academic regulations - choosing your major - achieving your educational or career goals - dealing with academic or other difficulties	**Killam Library Ground floor** Rm G28 ***Bissett Centre for Academic Success***	In person: Killam Library Rm G28 By appointment: - e-mail: advising@dal.ca - Phone: (902) 494-3077 - Book online through MyDal
Dalhousie Libraries	Help to find books and articles for assignments Help with citing sources in the text of your paper and preparation of bibliography	**Killam Library Ground floor** Librarian offices	In person: Service Point (Ground floor) By appointment: Identify your subject librarian (URL below) and contact by email or phone to arrange a time: http://dal.beta.libguides.com/sb.php?subject_id=34328
Studying for Success (SFS)	Help to develop essential study skills through small group workshops or one-on-one coaching sessions Match to a tutor for help in course-specific content (for a reasonable fee)	**Killam Library 3rd floor** Coordinator Rm 3104 Study Coaches Rm 3103	To make an appointment: - Visit main office (Killam Library main floor, Rm G28) - Call (902) 494-3077 - email Coordinator at: sfs@dal.ca or - Simply drop in to see us during posted office hours **All information can be found on our website: www.dal.ca/sfs**
Writing Centre	Meet with coach/tutor to discuss writing assignments (e.g., lab report, research paper, thesis, poster) - Learn to integrate source material into your own work appropriately - Learn about disciplinary writing from a peer or staff member in your field	**Killam Library Ground floor** Learning Commons & Rm G25	To make an appointment: - Visit the Centre (Rm G25) and book an appointment - Call (902) 494-1963 - email writingcentre@dal.ca - Book online through MyDal We are open six days a week **See our website: writingcentre.dal.ca**