

Faculty of Science Course Syllabus Department of Mathematics and Statistics Math 1010 Differential & Integral Calculus II Fall, 2019

Instructor

Alan Surovell Email: alan.surovell@dal.ca Office: Chase 201 Phone: 902-494-6423 Office Hours: MWF 10:30 - 11:30 or as requested

Lectures

Mondays	11:35 -12:25, LSC 240
Tuesdays	11:35 -12:25, LSC 242
Thursdays	11:35 -12:25, LSC 242

Tutorials

1 hour per week beginning the week of September 9. Everyone should have registered for a tutorial section by that time.

Course Description

A continuation of the study of calculus with topics including: Riemann sums, techniques of integration, parametric equations and polar coordinates, sequences and series, and Taylor series.

Course Prerequisites

MATH 1000.03, or MATH 1215.03 with a grade of B or better.

Course Objectives/Learning Outcomes

Understand the significance and various methods of evaluation of integrals

Understand how to utilize parametric representations of plane curves

Be able to compute areas and arc lengths associated with general parametric curves and specifically for curves defined by both cartesian and polar coordinates

Understand the significance of sequences, series and their associated convergence behaviour

Understand power series as well as the extent to which functions can be represented by Taylor/MacLaurin series

Course Materials

Textbook

Single Variable Calculus -- Early Transcendentals, Eighth Edition, by James Stewart

Brightspace

Brightspace is integral to this course. To access your Math 1010 course on Brightspace you may login to:

https://dal.brightspace.com/d2l/login

Alternatively, you can select the OWL link that appears on the Dalhousie homepage

(http://www.dal.ca)

It is important that you familiarize yourself with the systems requirement for proper access to Brightspace

You will need at various times to gain information from different areas of Brightspace. Most importantly:

1. The course outline as well as a link to the online assignments can be found in **Content**

2. Your grades can be found in Progress

If you are having trouble accessing Brightspace, cotact me right away.

WeBWorK

Your online assignments will appear in WeBWorK, accessed through a link appearing in **Content** in BrightSpace.

Resources

Math & Stats Student Resource Centre (Room 119, first floor Chase Building)

A calculus tutor will be available on weekdays and evenings on a first come, first served basis, free of charge. There are large tables where you can work together (on Math or Stats only, please). To see the current schedule, please visit the Resource Centre's webpage

http://www.dal.ca/faculty/science/math-stats/about/learning-centre.html

Course Assessment

Component	Weight (% of Final Grade)	Date
Tutorial Quizzes	15	Weekly
Online Homework	10	All due Dec. 9
Midterm Exam	25	October 12, 9 - 11 A.M., Dunn 117, covers ≤ 8.1
Final Exam	50	Exam Period

The Final Grade will be computed according to the following scheme:

Warning: It is strongly recommended that you don't leave the homework assignments till the end of the course; instead you should attempt to complete them roughly in tandem with class coverage of each topic.

Conversion of numerical grades to Final Letter Grades follows the Dalhousie Common Grade Scale.

A+:	(90% -100%)	A: (85% - 89%)	A-: (80% - 84%)
B+:	(77% - 79%)	B: (73% - 76%)	B-: (70% - 72%)
C+:	(65% - 69%)	C: (60% - 64%)	C-: (55% - 59%)
D:	(50% - 54%)	F: (< 50%)	

Course Policies

Missed quizzes or exams can be made up for documented illness or upon receipt of equivalent proof of inability to write at the scheduled time.

If the university is closed on a particular day of a given week, due to holiday or inclement

weather, for instance, then all tutorials for that week will be cancelled.

On exams, we recommend that answers be left in unsimplified form.

Calculators will **NOT** be allowed during tutorial quizzes, the midterm or the final examination. In fact, only writing utensils (pencils, lead, erasers, pens, white-out) will be allowed.

Information about the course may be given during class. It is the responsibility of the students to ensure that they are made aware of what occurs during classes.

Course Content

Date	Торіс
September 3	6.1
5	7.1
9	7.2
10	7.3
12	7.3
16	7.4
17	7.4
19	7.5
23	7.5
24	7.7
26	7.7
30	7.8
October 1	7.8
3	8.1
7	Thanksgiving Day No Class!
8	8.1
10	10.1
12	Midterm Exam: 9 A.M 11 A.M., Dunn 117, covers ≤ 8.1
14	10.2
15	10.2, 10.3,
17	10.3

The material to be covered is based on portions of Chapters 6 - 8, 10, and 11 of the text book. Specifically, we will try to stick to the following lecture schedule:

21		10.4
22		11.1
24		11.1
28		11.2
29		11.2, 11.3
31		11.3
November 4		11.4
5		11.5
7		11.6
11	1	Study Break No Class!
12	1	Study Break No Class!
14	1	Study Break No Class!
18		11.7
19		11.8
21		11.8
25		11.9
26		11.10
28		11.10
December 2		Review
3		Review

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:

 $www.dal.ca/dept/university_secretariat/policies/academic/student-accommodation-policy-wef-sep-1--2014.html$

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

STUDENT ABSENCE

The Faculty of Science follows the University policy for missed or late academic

requirements due to short term student absences. The link to the policy can be accessed here:

<u>https://www.dal.ca/dept/university_secretariat/policies/academic/missed-or-late-academic-requirements-due-to-student-absence.html</u>

Course sites (Brightspace) will have a link to the **Declaration of Absence form** (see **Student Absence** in **Content**), and online submission of the forms will be enabled this fall via the widget on Brightspace. Note that students are not be able to obtain medical notes from the Dalhousie Student Health and Wellness Centre for short term absences (3 consecutive days or fewer) during term. Students may submit a MAXIMUM of 2 separate forms per course per term. Students with recurring absences should be referred to the Assistant Dean Student Affairs. Students with long term absences may need to be referred to the Student Accessibility centre. Please note students with an Accommodation Plan in place do not need to submit Student Declarations of Absence.The policy does not apply to final coursework or exams scheduled by the Registrar's Office.

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

(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

 $www.dal.ca/dept/university_secretariat/academic-integrity/academic-policies.htm$

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

(a) the integrity and proper functioning of the academic and non academic programs and activities of the University or its faculties, schools or departments;

(b) the peaceful and safe enjoyment of University facilities by other members of the University and the public;

(c) the freedom of members of the University to participate reasonably in the programs of the University and in activities on the University's premises;

(d) the property of the University or its members."

The full text of the code can be found here:

www.dal.ca/dept/university_secretariat/policies/student-life/code-of-student-conduct.huml

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 <u>free</u>.

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: dal.beta.libguides.com/sb .php?subject_id=34328
Studying	Help to develop essential	Killam Library	To make an appointment:

for Success (SFS)	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).	3rd Floor Coordinator Rm 3104 Study Coaches Rm 3103	-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) 4 94-1963 -email writingcentre@dal.ca -Book online through MyDal We are open six days a week See our website: writingcentre@dal.ca