



**DALHOUSIE
UNIVERSITY**

Faculty of Science Course Syllabus (revised May 15 2019)

Department of Mathematics and Statistics

Math 2001

Intermediate Calculus I

Summer 2019

Instructor(s): *Joey Latta* lattaj@mathstat.dal.ca *Chase Building*

Lectures: M, W, 9:05 – 11:55, May 6th through June 24th *LSC 242*

Laboratories: *none*

Tutorials: *none*

Course Description

Topics include review of parametric equations, polar coordinates, conic sections, coordinate systems and vectors, dot product and cross product, vector functions, derivatives and integrals of vector functions, arc length and curvature, functions of several variables and partial derivatives, directional derivatives and double and triple integrals.

Course Prerequisites

Math 1010

Course Objectives/Learning Outcomes

A successful student will be able to adequately demonstrate an understanding of the calculus concepts stated in the content.

Course Materials

Textbook: Calculus Multivariable Early Transcendentals by James Stewart

Course Assessment

Component	Weight (% of final grade)	Date
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Assignments	30%	As given on website OR in class
Mid-Term Exam	30%	Wednesday May 29 th 9:00am
Final Exam	40%	Monday June 24 th 9:00 am

Note: The final must have a grade of 50% or higher to pass the class, regardless of other marks.

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

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

Course Content

Chapter 12: Three-Dimensional Coordinate Systems, Vectors, Dot and Cross Product, Equations of Lines and Plane, Cylinders and Quadric Surfaces

Chapter 13: Vector Functions and Space Curves, Limits, Derivatives and Integrals of Vector Functions, Arc Length and Curvature, Unit Tangent, Normal and Binormal Vectors, Motion in Space

Chapter 14: Functions of Several Variables, Limits and Continuity, Partial Derivatives, Tangent Plane and Linear Approximations, The Chain Rule, Directional Derivatives and the Gradient Vector, Max and Min Values, Lagrange Multipliers

Chapter 15: 15.1-15.5

Double Integrals over Rectangles, Iterated Integrals, Double Integrals over General Regions, Double Integrals over Polar Coordinates, Surface Area

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.

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 <ul style="list-style-type: none"> - 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: <ul style="list-style-type: none"> - 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: <ul style="list-style-type: none"> - 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) <ul style="list-style-type: none"> - 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: <ul style="list-style-type: none"> - 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

To acknowledge this document was read, please print name, banner number, sign and date.
 This will be required for any and all issues.