

UNIVERSITY OF CALGARY  
DEPARTMENT OF MATHEMATICS AND STATISTICS  
COURSE OUTLINE

**1. Course:** MATH, 251, Calculus I

L02 MWF 10:00 – 10:50 CHC119 E. Braverman Office MS444 Tel. No 220-3956 e-mail maelena@ucalgary.ca  
Office Hours: MWF 11:10-12:20 T 8:30-9:30 W 16-17:30

Course webpage: <http://people.ucalgary.ca/~maelena/251.html>

Department of Mathematics and Statistics – MS476 Telephone number – 403-220-5210

**2. Prerequisites:** *A grade of 70 per cent or higher in Mathematics 30-1 or Pure Mathematics 30 and a grade of 50 per cent or higher in Mathematics 31. (Alternatives to Pure Mathematics 30 are presented in C.1 Mathematics Diagnostic Test in the Academic Regulations section of this Calendar).*

**3. Grading:** The University policy on grading and related matters is described sections F.1 and F.2 of the online University Calendar. In determining the overall grade in the course the following weights will be used:

Assignments (10)	10%
Midterm tests (2)	40% (Evening of Oct. 17 and Nov. 20)
Final Examination	50% (To be scheduled by the Registrar)

There will be an additional 45-minutes test in this class (September 27) which can be used in the assessment if the student could not attend one of the midterms by a valid reason.

A passing grade on the final exam is required to receive an overall grade of C- or better in the course. This is to ensure that those students who receive a C- or better have a reasonable chance of succeeding in courses that require this course as a prerequisite.

Each piece of work (midterm tests and final examination) submitted by the student will be assigned a percentage score. The student's average percentage score for the various components listed above will be combined with the indicated weights to produce an overall percentage for the course, which will be used to determine the course letter grade [bearing in mind that a D grade or lower will result if the student does not pass the final], The conversion between course percentage and letter grade is given below:

Letter Grade Conversions	
Letter Grade	% range
A+	>95
A	90–94.5
A-	85–89.5
B+	81–84.5
B	77–80.5
B-	73–76.5
C+	69–72.5
C	65–68.5
C-	61–64.5
D	55–60.5
F	<55

**4. Missed Components of Term Work:** The regulations of the Faculty of Science pertaining to this matter are found in the Faculty of Science area of the Calendar in Section 3.6. It is the student's responsibility to familiarize himself/herself with these regulations. See also Section E.6 of the University Calendar

**5. Scheduled out-of-class activities:**

Midterm 1: Thursday, October 17, 19:00-21:00.

Midterm 2: Wednesday, November 20, 19:00-21:00.

**REGULARLY SCHEDULED CLASSES HAVE PRECEDENCE OVER ANY OUT-OF-CLASS-TIME-ACTIVITY.** If you have a clash with this out-of-class-time-activity, please inform your instructor as soon as possible so that alternative arrangements may be made for you.

6. **Course Materials:** *"Single Variable Calculus: Early Transcendentals HYBRID (with Enhanced WebAssign)", Seventh Edition, by Stewart, Brooks/Cole – sold in the University Bookstore.*

**Online Course Components:** Online homework through WebAssign is available everywhere to those who opt to purchase the above textbook package. Those who do not purchase the textbook will be given access to just the homework component through select computer labs on campus. You are strongly encouraged to consider purchasing the bundled textbook option, as it will allow you to work on your homework from home and give you access to additional resources. The choice is up to you!

7. **Examination Policy:** Calculators (or any other electronic aid) are NOT permitted in the midterm tests or the final. Students should also read the Calendar, Section G, on Examinations.

**8. OTHER IMPORTANT INFORMATION FOR STUDENTS:**

(a) **Academic Misconduct:** (cheating, plagiarism, or any other form) is a very serious offence that will be dealt with rigorously in all cases. A single offence may lead to disciplinary probation or suspension or expulsion. The Faculty of Science follows a zero tolerance policy regarding dishonesty. Please read the sections of the University Calendar under Section K. Student Misconduct to inform yourself of definitions, processes and penalties

(b) **Assembly Points:** In case of emergency during class time, be sure to FAMILIARIZE YOURSELF with the information on assembly points.

(c) **Academic Accommodation Policy:** Students with documentable disabilities are referred to the following links: Calendar entry on students with disabilities and Student Accessibility Services. MSC452 Phone: 220-8237

(d) **Safewalk:** Campus Security will escort individuals day or night (<http://www.ucalgary.ca/security/safewalk/>). Call 220-5333 for assistance. Use any campus phone, emergency phone or the yellow phones located at most parking lot pay booths.

(e) **Freedom of Information and Privacy:** This course is conducted in accordance with the Freedom of Information and Protection of Privacy Act (FOIPP). As one consequence, students should identify themselves on all written work by placing their name on the front page and their ID number on each subsequent page. For more information see also <http://www.ucalgary.ca/secretariat/privacy>.

(f) **Student Union Information:** VP Academic Phone: 220-3911 Email: [suvpaca@ucalgary.ca](mailto:suvpaca@ucalgary.ca)  
SU Faculty Rep. Phone: 220-3913 Email: [sciencerep@su.ucalgary.ca](mailto:sciencerep@su.ucalgary.ca)  
Student Ombudsman Phone: 220-6420 Email: [ombuds@ucalgary.ca](mailto:ombuds@ucalgary.ca)

(g) **Internet and Electronic Device Information:** You can assume that in all classes that you attend, your cell phone should be turned off unless instructed otherwise. Also, communication with other individuals, via laptop computers, Blackberries or other devices connectable to the Internet is not allowed in class time unless specifically permitted by the instructor. If you violate this policy you may be asked to leave the classroom. Repeated abuse may result in a charge of misconduct.

Department Approval \_\_\_\_\_ Date \_\_\_\_\_

Associate Dean's Approval for out of regular class-time activity: \_\_\_\_\_ Date: \_\_\_\_\_

## Tentative Schedule

Week	Date	Topic	Events
1	Sept. 9-13	App. A-D Numbers, Inequalities, Absolute Values, Coordinate Geometry and Lines, Trigonometry	
2	Sept. 16-20	1.1-1.3, 1.5, 1.6, 2.1 Functions, Essential Functions, Combining Functions, Exponential, Logarithms and Inverse Functions	
3	Sept. 23-27	2.2, 2.3, (2.4), 2.5 Introduction to Tangent, Limits of Functions, Calculating Limits, (Precise Definition of Limit), Continuity	
4	Sept. 30-Oct. 4	2.5-2.8 More on Continuity, Limits at Infinity, Derivatives	
5	Oct. 7-11	2.8, 3.1-3.3 More on Derivatives, Derivatives of Polynomial and Exponentials, Product and Quotient Rule	
6	Oct. 14-18	Midterm Review, 3.4 Chain Rule	Midterm 1 No Class on Monday
7	Oct. 21-25	3.5-3.8 Implicit Differentiation, Derivatives of Logarithms and Inverse Functions, Rates of Change, Exponential Growth and Decay	
8	Oct. 28-Nov. 1	3.9, 3.10, 4.1, 4.2 Related Rates, Linear Approximations, Maximum and Minimum Values, Mean Value Theorem	
9	Nov. 4- Nov. 8	4.3-4.5 Derivatives and the Shape of the Graph, Curve Sketching, Indeterminate Forms and L'Hospital's Rule	
10	Nov. 11 – Nov. 15	4.7, 4.8 Optimization Problems, Newton's Method	No Class Monday and Tuesday
11	Nov. 18 – Nov. 22	Midterm Review, 4.9, 5.3 Antiderivatives, Fundamental Theorem of Calculus	Midterm 2
12	Nov. 25 –Nov. 29	5.3-5.5 Fundamental Theorem of Calculus, Indefinite Integral and the Substitution Rule	
13	Dec. 2 – Dec. 6	5.1, 5.2, 6.1 Formal Definition of Definite Integrals	

