



Faculty of Science
DEPARTMENT OF MATHEMATICS AND STATISTICS
Course Information Sheet

1. **Course:** **MATHEMATICS 249 - Introductory Calculus**
Lecture/Time/Session: L03 MWF 15:00 ST 145 FALL 2005
M 16:00 ST 145
Instructor(s): V. Stastna
Office/Phone/Email: MS 450 220-3345 vstastna@math.ucalgary.ca

2. **Prerequisites:** A grade of 70% or higher in Mathematics 30 or Pure Mathematics 30 or Math II (Continuing Education).

NOTE: Credit for more than one of MATH 249, 251 and AMAT 217 will not be allowed.

NOTE: Not open to students with 60% or higher in Math 31, except with special departmental permission. Credit for more than one of MATH 249, 251 and AMAT 217 will not be allowed.

NOTE: The Faculty of Science policy on pre- and co-requisite checking is outlined in the current University Calendar (see www.ucalgary.ca/pubs/calendar) *Faculty of Science, section 5C*. **It is the students' responsibility to ensure that they have the pre- and co-requisites for the course, and if they do not they will be withdrawn from the course without notice.**

3. **Fee policy:** After the last day to drop/add courses, there will be no refund of tuition fees if a student withdraws from a course, courses or the session.

4. **The University policy on grading and related matters** is described in the current University Calendar, *Academic Standings*. In determining the overall grade in the course, the following weights will be used:

Mid-term Test	[1]	20%	
Quizzes	[4]	30%	[Best _4_ of _5_]
Final Exam		50%	

There will be a final examination scheduled by the Registrar's Office. A passing grade on the final examination is essential to passing the course as a whole.

5. **Missed Components of Term Work.** The regulations of the Faculty of Science pertaining to this matter are outlined in the current University Calendar, *Faculty of Science, section 6A*. It is the student's responsibility to familiarize herself/himself with these regulations

6. **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 current University Calendar under the heading *Student Misconduct* and the information on integrity at: www.ucalgary.ca/honesty

7. **Dates and times of class exercises held outside of class hours (evening tests, Saturday laboratory examinations, weekend field trips, etc.):**

REGULARLY SCHEDULED CLASSES HAVE PRECEDENCE OVER ANY OUT-OF-CLASS-TIME-ACTIVITY

THERE WILL BE NO OUT OF CLASS ACTIVITY SCHEDULED FOR THIS COURSE.

8. **Text:** Single Variable Calculus OR A Complete Course, any edition

Author: Adams

9. There will be five quizzes, each of duration 35 minutes or less, administered during the regularly scheduled labs of this lecture section. **Quizzes** will be given the weeks of **September 19, October 3, 17, November 14, 28.**

There will be one **mid-term test** scheduled in class **November 4, 2005.**

There will be a two-hour **final exam.** A passing grade on the final exam is necessary to pass the course.

10. Calculators **ARE** permitted at quizzes, mid-term test, or the final exam.
11. In addition to the instruction provided by their lecturer and tutorial instructor, there is a continuous tutorial available where students may obtain individual help with questions about the course material and exercise problems. Faculty members and graduate students will be available in the continuous tutorial room to answer questions in a one-to-one fashion. The location and hours of operation of the continuous tutorial will be announced by the lecturer.
12. **SCUM**
The Society for Calgary Undergraduate Mathematics is located in MS337A. They sell exam packages, run final reviews, and can often assist with problems. The office is open from 10am to 3pm Monday-Friday, and you are welcome to drop by. They look forward to meeting you!

TENTATIVE CALENDAR: Sections referenced are taken from the 5th edition of Single Variable Calculus by Adams.

Week	Sections				Topics
1	P1	P2	P3	P4	Inequalities, lines, circles
2	P5	1.2	1.3		Functions, limits
3	1.3	1.4	2.1		Continuity, tangent lines
4	2.2	2.3	P6		Derivative, rules, trigs
5	X	2.4	2.5		Derivative of trigs, Chain Rule
6	2.6	2.7	2.8		Higher derivative
7	2.9	2.10	3.1		Implicit differentiation, antiderivative
8	3.2	3.3			Exponent and logarithmic functions, growth, decay
9	3.4	4.2			Extreme values, increasing and decreasing functions
10	4.2	4.3	4.4		Concave up/down, graphing
11	4.5	4.7	4.9		Applied max/min problems, linear approximations
12	4.9	5.3	5.4		L'Hopital Rule, definite integral
13	5.5	5.6	Review		Fundamental Theorem; substitution method