

THE UNIVERSITY OF CALGARY  
FACULTY OF SCIENCE  
Department of Mathematics and Statistics

COURSE INFORMATION SHEET  
Winter 2008 MATH 253/263 L04

(1) **Course schedule:**

Lecture/Lab	Days	Time	Location	Instructor
L04	MWF	12:00-12:50	ST145	Dr. C. Cunningham ( <a href="mailto:cunning@math.ucalgary.ca">cunning@math.ucalgary.ca</a> )
B13	F	15:00-15:50	MS 371	R. Stratford
B14	F	15:00-15:50	MS 325	M. Mamdani
B15	Th	11:00-11:50	MS 371	TBA
B16	Th	11:00-11:50	MS 325	R. Stratford
Math 263	T	11:00-11:50	TBA	Dr. J. Ling ( <a href="mailto:ling@math.ucalgary.ca">ling@math.ucalgary.ca</a> )

(2) **Topics:**

- (a) *Integration:* The definite integral, the indefinite integral, and the fundamental theorem(s) of calculus; areas. Techniques of integration. Applications of the definite integral: volumes of solids of revolution, arc length, “density” problems.
- (b) *Differential equations:* Exponential growth and the logistic equation. Separable differential equations, first order linear differential equations. Second order linear differential equations with constant coefficients, applications. A simple predator-prey model (time permitting).

- (3) **Prerequisites:** Math 249 or 251 or Amat 217 **Corequisites:** None *Note:* The Faculty of Science policy on pre- and co-requisite checking is outlined in the current University Calendar, *Faculty of Science, Section 5C*. It is the student’s responsibility to ensure that they have the pre- and/or co-requisites for the course, and if they do not they will be withdrawn from the course without further notice.

- (4) **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.

- (5) **Academic accommodations:** It is the student’s responsibility to request academic accommodations. A student with a documented disability who may require academic accommodation must register with the Disability Resource Centre to be eligible for formal academic accommodation. DRC registered students are required to discuss their needs with the instructor no later than fourteen (14) days after the start of this course.

- (6) **Grading:** 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:

Homework (10)	10%
Quizzes (5)	15%
Midterm test	25%
Final exam	50%

- (7) **Mid-term test:** The mid-term test will be held in-class during a regularly scheduled lecture time during the week of March 10-14. No Calculators or other aids will be allowed.
- (8) **Final Examination:** The final examination will be scheduled by the Registrar's Office during the period April 20-31. Students must obtain at least a grade D on the final examination in order to obtain an overall final grade of D or better.
- (9) **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.
- (10) **Academic misconduct:** Cheating, plagiarism, or any other form of academic misconduct 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. See: <http://www.ucalgary.ca/honesty/>
- (11) **Textbook and recommended reading:** *Calculus: a Complete Course, 6th edition*, or *Calculus: Single Variable, 6th edition*, by Adams, published by Addison-Wesley.
- (12) **Calculators:** The use of calculators during quizzes, the midterm test, or final examination is **not** permitted.
- (13) **Homework and quizzes:** Homework problems will be assigned weekly, and are to be completed on-line at <http://webwork.ucalgary.ca>. Each student will have an account and the assignments can be done from almost any computer with web access. Your answers to the assignment questions will be checked and marked automatically. Details about the system and how to use it will be provided during the term.

By the end of each week you should have mastered the sections of the text indicated on the course schedule (see below) and the corresponding assignment. You should prepare for each lecture by reading the text and for each tutorial by attempting to do as many exercises as possible in advance. Math is like weight-lifting – the more reps you do, the stronger you get!

In addition to the assigned homework problems there are many problems in the textbook that you can try. The answers to the odd-numbered exercises are given in the back of the book, so we recommend that you try these first. Your lectures will not necessarily cover everything in detail; they should guide you in your study of the text. Similarly, your tutorial instructor should help you diagnose your difficulties and teach you how to overcome them.

The weekly tutorials are each of 50 minute duration. If you have problems with any questions you can ask your tutorial instructor for help during this time. In addition, during five of these tutorials (roughly every other week; see the course schedule) there will be a quiz of 50 minutes duration. All quizzes will be held in the computer room MS317, will be written using Webwork, and will also be *open book*. You can bring any textbooks or your notes to the quizzes, but Calculators will not be allowed.

- (14) **Continuous tutorial:** Don't forget to visit the 'Continuous Tutorial', where you can come and ask a tutor for help on a drop-in basis. The Continuous Tutorial is held in MS365, MTWR 11:00 – 15:00 and F 11:00 – 14:00.
- (15) **Webpage:** The webpage for this section is available through the site <http://blackboard.ucalgary.ca>. Information about the course (including this outline) will be posted there.
- (16) **Provisional schedule of lectures. (Section numbers refer to the text by Adams: a Complete Course.)**

Week	Dates	Sections of Text	Test/Quiz
1	Jan. 14, 16, 18	3.1, 3.2, 3.3	no labs
2	Jan. 21, 23, 25	3.5, 3.6	B13 and B15 Quiz
3	Jan. 28, 30, Feb. 1	5.6, 6.1, 6.2	B14 and B16 Quiz
4	Feb. 4, 6, 8	6.1, 6.3	B13 and B15 Quiz
5	Feb. 11, 13, 15	6.5, 6.6	B14 and B16 Quiz
	Feb. 18-22	Reading Week	
6	Feb. 25, 27, 29	5.7, 7.1	B13 and B15 Quiz
7	Mar. 3, 5, 7	7.1, 7.3	B14 and B16 Quiz
8	Mar. 10, 12, 14	4.8, Review	<b>MIDTERM</b>
9	Mar. 17, 19	7.9 and notes	no labs
10	Mar. 24, 26, 28	7.9 and notes	B13 and B15 Quiz
11	Mar, 31, Apr. 2, 4	3.7 and notes	B14 and B16 Quiz
12	Apr. 7, 9, 11	3.7 and notes	B13 and B15 Quiz
13	Apr. 14, 16, 18	Review	B14 and B16 Quiz

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