

## COURSE INFORMATION SHEET

1. Course	AMAT 219 – Multivariable Calculus For Engineers						Winter 2008
Lecture	Days	Time	Location	Instructor	Office	Phone	Email
01	MWF	08:00	EN E 243	M. Aiffa	MS 574	220-6313	<a href="mailto:aiffa@math.ucalgary.ca">aiffa@math.ucalgary.ca</a>
02	MWF	10:00	EN A 103	Y. Elsabrouty	MS 418	220-2255	<a href="mailto:yousry@math.ucalgary.ca">yousry@math.ucalgary.ca</a>
03	TR	12:30	EN E 241	J.Zuniga	MS 446	220-4044	<a href="mailto:@math.ucalgary.ca">@math.ucalgary.ca</a>
04	MWF	13:00	EN E 241	M.Lamoureux	MS 514	220-8214	<a href="mailto:mikel@math.ucalgary.ca">mikel@math.ucalgary.ca</a>
05	MWF	13:00	ICT 122	Y. Elsabrouty	MS 418	220-2255	<a href="mailto:yousry@math.ucalgary.ca">yousry@math.ucalgary.ca</a>
06	TR	11:00	EN E 243	W. Liao	MS 530	220-3946	<a href="mailto:wliao@math.ucalgary.ca">wliao@math.ucalgary.ca</a>

- Prerequisites:** Applied Mathematics 217; or Mathematics 249 or 251 and consent of AMAT Division.  
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](http://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responsibility to ensure that they have the pre- and co-requisites for the course, and if they do not they will be withdrawn from the course without notice.
- 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.
- 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.
- 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 (90 minutes)	[1]	25%
Quizzes (written)	[5] (Best 4)	10%
Assignments (Web work)	[5] (Best 4)	10%
Maple Computer Assignment	[1]	05%
Final Examination (2 Hours)		50%

A passing grade on the Final Examination of the course is essential to passing the course as a whole. There will be a final examination scheduled by the Registrar's Office during the period from Monday April 21 to Wednesday April 30 / 2008. The use of aids such as open book, etc. is not permitted.
- 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 her/him with these regulations.
- 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. See: <http://www.ucalgary.ca/honesty/>
- Dates and times of class exercises held outside of class hours (evening tests, Saturday laboratory examinations, weekend field trips, etc.):**  

**There will be out-of-class-time activities ;**  
**(Midterm Test will be held on Wednesday March 12 / 2008 from 06:30 to 8:00 pm).**  
**REGULARLY SCHEDULED CLASSES HAVE PRECEDENCE OVER ANY OUT-OF-CLASS-TIME-ACTIVITY.** If you have a conflict with this out of class time activity, please inform your instructor at least one week in advance of the activity so that other arrangements may be made for you.
- Text: Calculus: A Complete Course, by Adams, R.A., Pearson Education Canada, 6th Edition with Mathxl Access Code or Stand alone Mathxl Access Card.**

10. Calculators: the use of calculators in Quizzes, Midterm test, or Final Examination is not permitted.

#### 11. Grading System:

The Final Grade is based on the grades achieved in Lab Quizzes, Web Work Assignments, and Maple Computer Assignment, Midterm test and a Comprehensive Final Examination as follows:

10% on the Lab Quizzes,

10% on Web Work Assignments

05% on Maple Computer Assignment

25% on the 90 minute Midterm Test, and

50% on the final examination scheduled by the Registrar's Office

Students must obtain at least a grade of "D" on the Final Examination in order to obtain an

Overall Final Grade of D or better. There is no predetermined grade distribution (curve) for this course.

All work will be graded according to the University of Calgary Grading System (Please refer to page 44 of 2007 – 2008 Calendar)

Grade point scores for Quizzes, Web work assignments, Midterm test, Maple Assignment and the Final Examination will be awarded as follows:

For each of the above components, every question will be assigned a positive weight indicating the value of the question. All weights in a particular assignment or a test add up to "one" (1). (The same as 100 %.) Each question will be given a letter grade. The grade point value of the letter grade multiplied by the weight will be computed, and the sum of these products will be a grade point score for the assignment; its value will be between 0 and 4 and corresponds approximately to a letter grade .It must not be interpreted as a percent grade.

Example: Three questions, weighted 0.6, 0.2, 0.2. Letter grades are A-, B+, and F respectively.

The numerical grade for this assignment is:  $(3.7 \times 0.6) + (3.3 \times 0.2) + (0.0 \times 0.2) = 2.88$ .

The "Overall" Final Course grade is computed in a similar way.

Example: The student is averaging 2.27 on Lab Quizzes, 3.2 on web work assignments, received 3.8 on the Maple assignment and 2.7 on the midterm test.

The student's credit towards the final grade is :  $(0.10) \times (2.27) + (0.10) \times (3.2) + (.05) \times (3.8) + (.25) \times (2.7) = 1.412$

Here the weights 0.10 and 0.10, 0.05 and 0.25 come from the percentages given on page 1.

At the end, suppose that the final examination has been given 3.13.

The final numerical grade point score is:  $1.412 + (.50) (3.13) = 2.977$

This grade point score is near 3 and the final letter grade assigned to this student will be in the B range

Neither the letter grades nor their numerical equivalents are "out of" anything. In other words, for

example a grade of "c" or a "2" are a qualitative assessment meaning satisfactory and not 50%.

12. Homework & Quizzes: Students should do as many of the problems in the book and / or worksheets as possible.

Solutions to these problems are NOT to be handed in for grading, and solutions can be found in the Student Solutions Manual. The labs are each 75 minutes in duration. In a week where a written Quiz is scheduled the first half-hour is used for discussion of problems and during the last 45 minutes of the lab the student is to work on a quiz which will be handed in for grading at the end of that lab. This will be conducted under TEST CONDITIONS except that each student may use his/her notes and any textbook as an aid. The use of calculators is NOT permitted. Solutions to these quizzes will be available at

<https://blackboard.ucalgary.ca/webapps/login/>

There is No Lab in weeks 1, 6 and 9 and No lectures March 21 (Good Friday)

Experience shows that students who do little or no homework and regularly skip labs will have difficulty with the course material and usually fail this course. Help is available from all instructors either in the lab, office hours posted, or by appointment.

Absences from the various components of the assessment are subject to the regulations outlined on the 2007 – 2008 Calendar.

## CALENDAR

Week #	Date	Sections Of Text	Assignment / Quiz / Test / Other Notes
1	January 14 – 18	6.1, 6.2, 6.3	No Lab.
2	January 21 – 25	6.3, 6.5	Web Work Practice -- AMAT 217 Review
3	January 28 –Feb. 01	6.6, 6.7, and 12.1	Quiz 1 (Covers material of Sections: 6.1, 6.2, and 6.3)
4	February 04 – 08	12.2, 14.1, 14.2	Web Work Assignment 1 Due on Feb. 10 (11:59 pm)
5	February 11 – 15	14.4, 7.4, 7.5	Quiz 2 (Covers material of Sections: 6.3, 6.5, 6.6, and 6.7) Section 14.4, pages 772 –776 only Section 7.4, and 7.5, using double Integrals
6	February 18 – 22	Reading Week	No Lecture & No Lab.
7	February 25 – 29	10.1, 10.2, 10.3	Web Work Assignment 2 Due on March 02 (11:59 pm)
8	March 03 –07	10.4, 10.5	Quiz 3 (Covers material of Sections: 14.1, 14.2, 14.4, 7.4, and 7.5)
9	March 10 – 14	14.5, 14, 6	Midterm Test March 12 (6:30 –8:00 Pm). No Lab.
10	March 17 – 20	14.6, 14.7	Web Work Assignment 3 Due on March 24 (11:59 pm) Section 14.7, pages 798 –800 only
11	March 24 – 28	8.2, 8.3, 8.4	Quiz 4 (Covers material of Sections: 10.2, 10.3, 10.4, 10.5, and 14.5)
12	March 31 – Apr.04	11.1, 11.3, 12.3	Web Work Assignment 4 Due on April 06 (11:59 pm)
13	April 07 – 11	12.3, 12.4, 12.5	Quiz 5 (Covers material of Sections: 14.6, 14.7, 8.2, 8.3, and 11.3) Maple Assignment Due (on lab day),
14	April 14 – 18	12.5, 12.8, 13.1	Web Work Assignment 5 due on April 23 (11:59 pm) Section 12.8, Pages 690 –691 Only

### NOTES:

- The section numbers refer to the text by R.A. Adams. Some departures from this schedule may take place.
- A lecture falling on the test day may be used for review and the test will be held on Wednesday March 12 / 2008 from 6:30 to 8:00 pm. The mid-term test will be on material up to and including Week 7. No calculators allowed.
- By the end of each week you should have mastered the sections of the text indicated on the course calendar and the corresponding assignment. You should prepare for each Lecture by reading the text and for each Lab by attempting to do as many exercises as possible in advance. Your Lectures will not necessarily cover everything in detail; they should guide you in your study of the text. Similarly, your Lab instructor should help you diagnose your difficulties and teach you how to overcome them.
- AMAT 219 Work Sheets, Past Midterm Tests / Final Examinations are available at:  
<https://blackboard.ucalgary.ca>
- AMAT 219 Course Announcements will be available at:  
<https://blackboard.ucalgary.ca>

The Students are advised to visit the website at least once a week to check for Updated Announcements as well as Updated Course Calendar.