UNIVERSITY OF CALGARY

Faculty of Science

DEPARTMENT OF MATHEMATICS AND STATISTICS
Course Information Sheet

1. Course   **AMAT 219 – Multivariable Calculus For Engineers**   **Winter 2005**

Lecture	Days	Time	Location	Instructor	Office	Phone/email
L01/05	MWF	09:00	EN E 243	B.Brenken	MS 372	220-3948
				bbrenken@math.ucalgary.ca		
L02/06	MWF	11:00	EN E 243	Y.Elsabrouty	MS 446	220-2255
				yousry@math.ucalgary.ca		
L03/07	MWF	15:00	EN E 243	Y.Elsabrouty	MS 446	220-2255
				yousry@math.ucalgary.ca		
L04/08	MWF	13:00	EN E 243	K.Chang	MS 426	220-6301
				kchang@math.ucalgary.ca		

2. **Prerequisites :Applied Mathematics 217;or Mathematics 249 or 251 and consent of Applied Mathematics 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) *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responsibility to ensure that they have the pre- and co-requisites for the course, and if they do not they will be withdrawn from the course without notice.**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]**	**25%**
Quizzes (Written)	**[5]**	**15%**
Quizzes (Web work)	**[5]**	**15%**
Maple Assignment	**[1]**	**05%**
Final Exam		**40%**

A passing grade on any particular component of the course is essential to passing the course as a whole. There will be a final examination scheduled by the Registrar's Office. The use of aids such as open book, etc**. is not permitted**.

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. See: http://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.):** *There will be out-of-class-time activities* ;(Midterm Test will be held on March 14 /2005 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.

8. **Text:** Calculus: a complete course, by Adams, R.A., Addison-Wesley, 5th Edition.

9. **Calculators:** The use of calculators in tutorials, test, or final examination is **not** permitted.

10. H**omework & Quizzes**: Students should do as many of the problems in the book 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 through the Engineering Drop-in Centre, Room C208.

There is no lab in weeks 1, 6 and 9, and no quizzes in weeks 1, 6 and 9.

Experience shows that students who do little or no homework have difficulty with the lab problems and usually fail this course. Help is available from all instructors either in the first half-hour of the lab or by appointment.

Absences from the various components of the assessment are subject to the regulations on page 198 of the 2003-2004 Calendar.

C A L E N D A R

WEEK NUMBER	DATE	SECTIONS OF TEXT	TEST/QUIZ
1	Jan 10 – 14	6.1, 6.2, 6.3	**NO Lab**
2	Jan 17 – 21	6.3, 6.5, 6.6	**Quiz 1 (web work)**
3	Jan 24 –28	6.7, 12.1, 12.2	**Quiz 2 (written)**
4	Jan31 – Feb 4	14.1, 14.2, 14.4 (pages 856 – 861 only)	**Quiz 3(web work)**
5	Feb 7 – 11	7.4, 7.5 (both using double integrals)	**Quiz 4 (written)**
6	Feb 14 – 18	10.1, 10.2, 10.3	**Quiz 5 (web work)**
7	Feb 21 – 25	Reading Week	
8	Feb 28 - Mar 4	10.4, 10.5, 11.1	**Quiz 6 (written)**
9	Mar 7 – 11	14.5, 14.6	**Quiz7 (web work)**
10	Mar 14 – 18	14.7 (pages 886 - 888 only), 8.2	**Midterm on Monday March 14, No Lab**
11	Mar 21 – 23	8.3, 8.4	**Quiz 8 (written)**
12	Mar 28 – Apr 1	11.3, 12.3, 12.4	**Quiz 9 (web work)**
13	Apr 4 – 8	12.4, 12.5,	**Quiz 10 (written)**
14	Apr 11 – 15	12.8 (pages 763 – 764 only), 13.1, Review.	**Maple Assignment Due 0n April 15**

NOTES:

1. The section numbers refer to the text by R.A. Adams. Some departures from this schedule may take place.

2. A lecture falling on the test day may be used for review and the test will be held on **Monday March 14 / 2005 from 6:30 to 8:30 pm.**

3. The mid-term test will be on material up to and including **Week 8**. No calculators allowed

A standard formula sheet will be Supplied **(DO NOT BRING YOUR OWN!!)**

4. 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 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! The back of the book gives the answers to the odd-numbered exercises, 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.