

Faculty of Science DEPARTMENT OF MATHEMATICS AND STATISTICS Course Information Sheet

| 1. Course | AMAT 219 – Multivariable Calculus For Engineers | | | | | Winter 2007 | | |
|-----------|---|-------|----------|---------------|--------|-------------|---------------------------|--|
| Lecture | Days | Time | Location | Instructor | Office | Phone | email | |
| L01/07 | MWF | 08:00 | EN E 243 | D. Holland | MS 374 | 220 3941 | dholland@math.ucalgary.ca | |
| L02/08 | MWF | 10:00 | EN A 103 | Y. Elsabrouty | MS 418 | 220-2255 | yousry@math.ucalgary.ca | |
| L03/09 | TR | 12:30 | EN E 241 | M. Aiffa | MS 574 | 220-6313 | aiffa@math.ucalgary.ca | |
| L04/10 | MWF | 13:00 | EN E 243 | T. Dinh | MS 534 | 220 2214 | tndinh@math.ucalgary.ca | |
| L05/11 | MWF | 13:00 | EN A 103 | Y. Elsabrouty | MS 418 | 220-2255 | yousry@math.ucalgary.ca | |
| L06/12 | TR | 11:00 | EN E 243 | C. Rios | MS 546 | 220-3221 | crios@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 <u>www.ucalgary.ca/pubs/calendar</u>) *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responsibility to ensure that they have the pre- and co-requisites for the course, and if they do not they will be withdrawn from the course without notice.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. 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.
- 5. 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] | 15% |
| Assignments (Web work) | [5] | 10% |
| Maple Computer Assignment | [1] | 05% |
| Final Examination (2 Hours) | | 45% |

There will be a final examination scheduled by the Registrar's Office during the period from Monday April 16 to Thursday April 26 / 2007. A passing grade on the final examination is essential to passing the course as a whole. The use of aids such as open book, etc. is not permitted.

- 6. 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.
- 7. 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: <u>http://www.ucalgary.ca/honesty/</u>
- 8. 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 Tuesday March 13 / 2007 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.
- 9. Text: Calculus: a complete course, by Adams, R.A., Pearson Education Canada, and 6th Edition.
- 10. Calculators: the use of calculators in Quizzes, Midterm test, or Final Examination is not permitted.
- 11. Homework & Quizzes: Students should do as many of the problems in the book and / or worksheets as possible. Solutions to these problems are <u>NOT</u> 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 <u>NOT</u> permitted. Solutions to these quizzes will be available through the Engineering Drop-in Centre (EDIC), Room EN C 208 and also will be available at either

http://www.math.ucalgary.ca/~yousry or http://www.schulich.ucalgary.ca/EDIC

There is No Lab in weeks 1, 7 and 10 and No lectures April 06 (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 2006 – 2007 Calendar.

| Week | # Date |) | Sections Of Text | Assignment / Quiz / Test / Other Notes |
|------|----------|-------------|---------------------|--|
| 1 | January | 08 – 12 | 6.1, 6.2, 6.3 | No Lab. |
| 2 | January | 15 – 19 | 6.3, 6.5, 6.6 | Review of AMAT 217 (in Lab) |
| 3 | January | 22 –26 | 6.7, 12.1, and 12.2 | Quiz 1 (Covers material of Sections: 6.1, 6.2, and 6.3) |
| 1 | January | 29 –Feb. 02 | 14.1, 14.2, 14.4 | Web Work Assignment 1 Due on Feb. 04 (11:59 pm) Section 14.4, pages 772 –776 only |
| 5 | February | 05 – 09 | 7.4, 7.5 | Quiz 2 (Covers material of Sections: 6.3, 6.5, 6.6, and 6.7) Section 7.4, and 7.5, using double Integrals |

CALENDAR

| 6 | February | 12 – 16 | 10.1, 10.2, 10.3 | Web Work Assignment 2 Due on Feb. 18 (11:59 pm) |
|----|----------|-------------|------------------|--|
| 7 | February | 19 – 23 | Reading Week | No Lectures & No Labs |
| 8 | February | 26 –Mar. 02 | 10.4, 10.5 | Quiz 3 (Covers material of Sections: 14.1, 14.2, 14.4, 7.4, and 7.5) |
| 9 | March | 05 – 09 | 14.5, 14, 6 | Web Work Assignment 3 Due on March. 11 (11:59 pm) |
| 10 | March | 12 – 16 | 14.7, 8.2 | Midterm Test March 13 (6:30 –8:00 Pm), No Lab. Section 14.7, pages 798 –800 only |
| 11 | March | 19 – 23 | 8.3, 8.4, 11.1 | |
| 12 | March | 26 – 30 | 11.3, 12.3 | Quiz 4 (Covers material of Sections: 10.1, 10.2, 10.3, 10.4, and 14.7) Web Work Assignment 4 Due on April 01 (11:59 pm) |
| 13 | April | 02 – 05 | 12.4, 12.5 | Quiz 5 (Covers material of Sections: 14.6, 14.7, 8.2, 8.3, 11.1, and 11.3) Maple Assignment Due (on lab day), |
| 14 | April | 09 – 13 | 12.8, 13.1 | Web Work Assignment 5 due on April 16 (11:59 pm) Section 12.8, Pages 690 –691 Only |

NOTES:

- 1. 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 Monday March 13 / 2007 from
 6:30 to 8:00 pm. The mid-term test will be on material up to and including Week 8. No calculators allowed.
- 3. 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.
- 4. AMAT 219 Work Sheets, Past Midterm Tests / Final Examinations are available at the Engineering Drop In Centre, Room EN C 208.
- 5. AMAT 219 Course Announcements will be available at: www.math.ucalgary.ca/~yousry The Students are advised to visit the website at least once a week to check for Updated announcements