

Faculty of Science
DEPARTMENT OF MATHEMATICS AND STATISTICS
Course Information Sheet

1. **Course:** AMAT 307 - Differential Equations for Engineers - Fall 2006

<u>Lecture</u>	<u>Day/Time</u>	<u>Location</u>	<u>Instructor</u>	<u>Office</u>	<u>Phone</u>	<u>Email</u>
L01	MWF 10:00	ENA 101	M. Lamoureux	MS514	220-8214	mikel@math.ucalgary.ca
T01	R 9:30	ICT 114	M. Lamoureux			
T02	R 9:30	A 142				
L02	MWF 9:00	ICT 121	P. Zvengrowski	MS430	220-7456	zvengrow@ucalgary.ca
T03	T 9:30	ICT 114	P. Zvengrowski			
T04	T 9:30	A 142				
L03/05	MWF 15:00	ENE 241	B. Brenken	MS372	220-3948	bbrenken@math.ucalgary.ca
T05/09	T 14:00	ICT 114	B. Brenken			
T06	T 14:00	ST 127				
L04/06	MWF 14:00	KNB 132	D. Holland	MS374	220-3941	dholland@math.ucalgary.ca
T07/10	R 14:00	ENE 003	D. Holland			
T08	R 14:00	ST 127				

2. **Prerequisites:** AMAT 219 and Math 221 **Co-requisite:** None

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responsibility to ensure that they have the pre- and co-requisites for the course, and if they do not they will be withdrawn from the course without notice.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. **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:

Webwork Homework	15%
Midterm Exam (1.5 hours)	35%
Final Exam (3 hours)	50%

There will be a final examination scheduled by the Registrar's Office. Quizzes are open book, while the midterm and final examinations are closed book. Calculators are **not** permitted during midterm and final exams. There is no predetermined grade distribution for this course.

Students **must** obtain a passing grade on the final examination in order to obtain an overall final grade of "D" or better.

6. **Missed Components of Term Work.** The regulations of the Faculty of Science pertaining to this are outlined in the current University Calendar, Faculty of Science, Section 6A. It is the student's responsibility to be familiar 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: <http://www.ucalgary.ca/honesty/>
8. There will be **one** out-of-class common midterm examination, which has been scheduled by the Faculty of Engineering for the **evening of Thursday, November 2**. REGULARLY SCHEDULED CLASSES HAVE

PRECEDENCE OVER ANY OUT-OF-CLASS-TIME-ACTIVITY. If you have a conflict with this scheduled exam, please inform your instructor at least one week in advance of the exam so other arrangements may be made.

9. **Text:** *Elementary Differential Equations with Boundary Value Problems*, by Kohler & Johnson, 2nd Edition. A portion of the course materials is found in *Calculus: A Complete Course*, by Adams, 5th edition.
10. **Calculators:** The use of calculators in the midterm exam or final examination is **not** permitted.
11. **Homework & quizzes:** Homework problems will be assigned (approximately) weekly. There are to be completed using the computer homework system WEBWORK which can be accessed at <http://webwork.ucalgary.ca>. Each student will have an account and the assignments can be done from any computer with web access. Your answers to the assignment questions will be checked and marked (by the computer) on a right/wrong basis. We will give more details about the system and how to use it during the term.
12. There is a webpage for this course, at www.math.ucalgary.ca/, under course listings, under undergraduate, under F06, under AMAT, under AMAT 307. Information about the course (including this outline!) will be posted there.

13. Schedule

Week	Date	Section in Text		
1	Sep 11 – 15	1.1, 1.2, 2.1, 2.2		No tutorials
2	Sep 19 – 22	2.3, 2.4, 2.5		
3	Sep 25 – 29	2.6, 2.7		
4	Oct 1 – 6	3.1, 3.2, 3.3, 3.11		
5	Oct 9 – 13	3.4, 3.5, 3.12	Thanksgiving Mon, Oct 9	No tutorials
6	Oct 16 – 20	3.7, 3.8, 3.13		
7	Oct 23 – 27	3.9, 3.13, 4.1		
8	Oct 30 – Nov 3	4.2, 4.3, 4.4	Midterm	
9	Nov 6 – 10	4.5, 4.6, 4.7, 4.8		
10	Nov 15 – 17	5.1, 5.2, 5.3	Reading Days: Nov. 13, 14	No tutorials
11	Nov 20 – 24	9.1*, 9.2*, 9.3*		
12	Nov 27 – Dec 1	9.4*, 9.5*, 9.6*		
13	Dec 4 – Dec 8	8.1, 8.2		

* These sections are from Adams, *Calculus: A Complete Course*, 5th edition.

NOTES:

- The section numbers refer to the text by Kohler & Johnson. Departures from this schedule may take place.
- The Midterm is scheduled for Thursday, November 2, 6:30 – 8:00 pm. No Calculators will be allowed.
- By the end of each week, you should have mastered the sections of the text indicated on the course schedule 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 you do, the stronger you get! In addition to the assigned WEBWORK 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 all everything in detail; they should guide you in the study of the text. Similarly, your tutorial instructor should help you diagnose your difficulties and teach you how to overcome them.