UNIVERSITY OF CALGARY

FACULTY OF SCIENCE

Mathematics and Statistics - MS 476
Ph: (403) 220-5203

COURSE INFORMATION SHEET

FALL 2006

1. **Course**: MATHEMATICS 221 - LINEAR ALGEBRA FOR SCIENTISTS AND ENGINEERS
   Lecture/Time: L03 9:30 TR
   Instructor: Wentao Sun
   Office/Phone/Email: MS590 220-7346 wtsun@math.ucalgary.ca

2. **Prerequisites**: 70% or higher in Pure Math 30 or equivalent.
   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responsibility to ensure that they have the pre- and co-requisites for the course, and if they do not they will be withdrawn from the course without notice.**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:

Assignments (Homework)	[4]	0%
Quizzes	[5]	30%
Midterm Test	[1]	20%
Final Exam		50%

   There will be a final examination scheduled by the Registrar's Office. The use of calculators, formula sheet or cellphone is not allowed during the exams.

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 herself/himself 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. **Dates and times of class exercises held outside of class hours (evening tests, Saturday laboratory examinations, weekend field trips, etc.):**

   *****THERE WILL BE NO OUT-OF-CLASS-TIME ACTIVITY.*****

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.

COURSE INFORMATION **MATHEMATICS 221, L03 FALL 2006**

1. **TEXT**: *Linear Algebra With Applications, 5Ed,* by W. Keith Nicholson, McGraw-Hill Ryerson, 2006.

2. **INSTRUCTOR**: Wentao Sun.

   - Email: wtsun@math.ucalgary.ca
   - Tel: 220-7346
   - Office: MS 590

3. **GRADING**: The final grade will be based on the following tests:

   Quizzes (5): 30% **Midterm Exams** (1): 20%; **Final Exam** (1): 50%

4. **ASSIGNMENTS**: There are four assignments will be assigned (one assignment per chapter). Assignments do not count for marks but are good practice. Some of the questions in the assignments will often pop up in the exams.

5. **QUIZZES**: There are five 30-minute quizzes will be given in the last half hour of your lab on the following dates:

   Quiz 1: **Week of September 20.**
   Quiz 2: **Week of October 4.**
   Quiz 3: **Week of October 25.**
   Quiz 4: **Week of November 8.**
   Quiz 5: **Week of November 29.**

   The quizzes will be graded and returned in the following lab. No make-up quizzes will be given. ***The quizzes are worth 30% of the total grade***.

6. **MIDTERM EXAM**: **Thursday, October 19 in the lecture period** (75 minutes). ***The midterm is worth 20% of the total grade***.

7. **FINAL EXAM**: **Scheduled by the Registrar** (3-hour test)

   The final examination is worth 50% of the total grade.

8. **LABS**: You will have been assigned one Lab per week (in MS371, TRB101 and TRB102) to help you with questions about the course. It is important to remember that quizzes are held in the Labs (as scheduled above). They will be written during the last hours of the lab. Labs are also very important for you to learn skills to solve problems. Some of the exercises on the textbook will be explained in the labs. Those exercises will often pop up in the quizzes. *All marks of quizzes will be posted on the blackboard. Please check your own marks when they are posted.*

9. **CONTINUOUS TUTORIAL**: Held in **MS 569** as follows:

   Mondays, Wednesdays and Fridays 13:00 to 15:00.
   Tuesdays, Thursdays 12:00 to 15:00.

10. **LECTURE SCHEDULE:** Here is an approximate outline of the contents of the course. (LABS ARE NORMALLY CANCELLED DURING THE FIRST WEEK(SEP, 11-15)).

WEEK	MATERIAL	COMMENTS
Sep 12, 14	1.1, 1.2	Lectures begin Monday, Sep 11.
Sep 19, 21	1.3, 2.1	
Sep 20		Quiz 1 in Lab
Sep 26, 28	2.2, 2.3	
Oct 3, 5	2.4, 2.5	
Oct 4		Quiz 2 in Lab
Oct 10, 12	2.5, 3.1	
Oct 17, 19	3.1, Midterm	
Oct 24, 26	3.2, 3.3	
Oct 25		Quiz 3 in Lab
Oct 31, Nov 2	3.3,3.3	
Nov 7, 9	A1,A1	
Nov 8		Quiz 4 in Lab
Nov 11- 14		Reading days
Nov 16	4.1	
Nov 21,23	4.1,4.2	
Nov 28,30	4.2,4.3	
Nov 29		Quiz 5 in Lab
Dec 5, 7	review	
Dec 11-20		Final Examination.

11. **COVERAGE OF THE EXAMS:**

- QUIZ 1: §1.1 to §1.3;
- QUIZ 2: §2.1 to §2.3;
- MIDTERM: §1.1 to §2.5;
- QUIZ 3: §3.1 to §3.2;
- QUIZ 4: §3.2 to §3.3;
- QUIZ 5: A1, §4.1 to §4.2;
- FINAL: All material covered by the course.

The use of calculators, formula sheet or cellphone is not allowed during the exams.

General Guidelines To Write Your Exams

- 1. You must use complete sentences and paragraphs. Your explanations are worth of marks. Equations should be considered as part of sentences.
- 2. All mathematical symbols must be defined either in your writeup or in the textbook. Never string together a sequences of equations without connecting phrases stating what manipulation is being done or what mathematical theorem being applied at each step, unless it is very obvious. In short you need to state clearly and understand clearly what is really going on.
- 3. Unless asking you to fill the blank, otherwise you have to show clearly how you setup and solve a problem. Only showing the final result is not enough.
- 4. YOUR DESCRIPTION SHOULD MAKE SENSE ON ITS OWN WITHOUT ASSUMING TELEPATHIC SKILLS OF THE READER.