

**MATH 2377 3X, SUMMER 2009  
OUTLINE FOR PROB. & STATS. FOR ENGINEERS**

**Professor:** Catalin Rada

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**Textbook:** Applied Statistics and Probability for Engineers, 4th ed. Montgomery and Runger

**Timetable:** Tuesday, 17:00 - 19:00 CBY B012 and Thursday, 17:00 - 19:00 CBY B012

**Prerequisite:** MAT 1322 or MAT 1303

**Office Hours:** In my office (Room B07-B) on TUE 19:00-20:00 or by appointment.

**Midterm Exam:** June 4th, 2009. The exam will be open book and multiple choice. The textbook and a calculator are required.

**Term Work:** The assignments must be submitted in class on Thursdays (check the website for questions and due dates). Note: No late assignments will be accepted!

**Final Exam:** It will be a three hour open book multiple choice exam. The textbook and a calculator are required.

**Evaluation:** If your mark on the final exam is less than 40%, the mark on the final exam will be your grade in the course. If your mark on the final exam is 40% or more, your grade in the course will be calculated as follows:

Assignments 15%

Midterm Exam 15%

Final Exam 70%

Total 100%

**Note:** If your mark on the final exam is greater than that on the test, or if you miss the test due to illness (medical certificate required), the final will replace the test (i.e. the final will count for 85% of the final grade). You must write the midterm, and there will be no replacement for the term work or the final exam.

**Cours Description** A concise survey of: combinatorial analysis; probability and random variables; discrete and continuous densities and distribution functions; expectation and variance; normal (Gaussian), binomial and Poisson distributions; statistical estimation and hypothesis testing; method of least squares, correlation and regression. The emphasis is on statistics and quality control methods for engineers. This course cannot be combined for credits with MAT1371, MAT1372, MAT2371, MAT2375 or MAT2378.

We will cover the following sections (subject to change):

Chapter 2: 2.1-2.8

Chapter 3: 3.1-3.7; 3.9

Chapter 4: 4.1-4.9

Chapter 5: 5.5

Chapter 7: 7.1-7.3

Chapter 8: 8.1-8.5

Chapter 9: 9.1-9.3; 9.5

Chapter 10:

Chapter 5: 5.1-5.3

Chapter 11: 11.1-11.3; 11.4.1; 11.5; 11.6; 11.8

Chapter 16: 16.5; 16.10.1

### **Assignments**

Assignment and Deadline

1. May 14
2. May 21
3. May 28
4. June 18
5. July 2
6. July 9

The solutions are going to be posted on the website.

Website: <http://www.mathstat.uottawa.ca/~crada292>

It is essential to check the website at least once a week for course materials, updates, corrections, solutions to assignments, etc.