

**UIC Department of Mechanical and Industrial Engineering**  
**IE 342 - Probability and Statistics for Engineers**  
**Spring 2007**

**Instructor**

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**TA**

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Office hours: TBA

**Meeting times**

The class meets on Mondays and Wednesdays at 4-5:15pm in ERF 1023. Please arrive on time and turn your cell phones off during the lecture.

**2005-2007 Catalog Description**

3 hours. Probability, random variables, mathematical expectation, discrete and continuous distributions, estimation theory, test of hypothesis, and introduction to standard experimental designs. Prerequisite: MATH 210.

**Textbook**

Walpole, Myers, Myers and Ye, *Probability and Statistics for Engineers and Scientists*, 8<sup>th</sup> Edition, Prentice Hall, 2007. Topics to be covered: Chapter 1-10.

**Web page**

Course-related information announcements, and homework solutions:  
<http://www.uic.edu/classes/ie/ie342ea>

**Homework**

Homeworks are due **in person** on Mondays at the beginning of the lecture. A homework turned in by someone else will not be accepted. Since the solution will be posted

on the course web page immediately after the lecture, no late homework will be accepted. Students with documented medical reasons may be excused.

Graded homeworks will be returned in class the following week, and then will be available for pick up at the TA's office hours.

Collaboration with other students is encouraged. You may discuss with your classmates possible approaches to solving the problems in the homework, but each student should write her/his solution **independently**. At the top of each homework you turn in, we expect you to briefly list the students you worked with.

### Study habits

In order to get the most out of the course, try to stay ahead. By the weekend, make sure you have reviewed the material covered in the lectures of the preceding week. Read the assigned material, but at a minimum, make sure to review your lecture notes. This way, the next lectures will be much more informative and meaningful.

Feel free to go to the instructor's or the TA's office hours if you have questions regarding the material covered in the lecture or solutions of homeworks that were posted on the web page, if you want to discuss your work, etc.

Also, it is a good idea to retain a copy of your homework before you turn it in. This lets you compare them with our solutions right away, rather than waiting a week until they come back to you graded.

In the exams and the homeworks, we expect you to concisely explain your reasoning. Giving a numerical answer, even correct, does not guarantee full credit if you don't justify it. Partial credit may be given if you show a correct understanding of the problem and the concepts involved.

### Grading

Homeworks, midterms, and final exams are graded numerically. The course grade will be determined as follows:

Homework and class participation	10 %
Midterm I	20 %
Midterm II	30 %
Final Exam	40 %

The homework and class participation grade is evaluated based on class attendance, class participation, and the average of all homework grades except the lowest one.

### Tentative course outline

Week 1	Jan. 17	Chapter 1	
Week 2	Jan. 22 - Jan. 24	Sections 2.1 - 2.4	HW 1 assigned on Jan. 22
Week 3	Jan. 29 - Jan. 31	Sections 2.5 - 2.7	HW 1 due on Jan. 29 HW 2 assigned on Jan. 29
Week 4	Feb. 5 - Feb. 7	Sections 2.8 - 3.2	HW 2 due on Feb. 5 HW 3 assigned on Feb. 5
Week 5	Feb. 12 - Feb. 14	Sections 3.3 - 3.5	HW 3 due on Feb. 12 HW 4 assigned on Feb. 14
Week 6	Feb. 19 - Feb. 21	Sections 4.1 - 4.2	<b>Midterm I</b> in class on Feb. 19
Week 7	Feb. 26 - Feb. 28	Sections 4.3 - 4.5	HW 4 due on Feb. 26 HW 5 assigned on Feb. 26
Week 8	March 5 - March 7	Sections 5.1 - 5.4	HW 5 due on March 5 HW 6 assigned on March 5
Week 9	March 12 - March 14	Sections 5.5 - 6.3	HW 6 due on March 12 HW 7 assigned on March 12
Week 10	March 19 - March 21	Sections 6.4 - 6.11	HW 7 due on March 19 HW 8 assigned on March 21
Week 11	April 2 - April 4	Sections 8.1 - 8.4	<b>Midterm II</b> in class on April 2
Week 12	April 9 - April 11	Sections 8.5 - 9.5	HW 8 due on April 9 HW 9 assigned on April 9
Week 13	April 16 - April 18	Sections 9.6 - 9.15	HW 9 due on April 16 HW 10 assigned on April 16
Week 14	April 23 - April 25	Sections 10.1 - 10.4	HW 10 due on April 23 HW 11 assigned on April 23
Week 15	April 30 - May 2	Sections 10.5 - 10.11	HW 11 due on April 30
	Thursday, May 10		<b>Final exam</b>