

# MA 171 INTRODUCTION TO PROBABILITY AND STATISTICS

Fall Semester, 2002

M-W-Th-F, 1:00-1:50 PM, West 3808

## **Instructor:**

Professor John Kiltinen

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## **Prerequisites:**

For new freshman: a pre-calculus placement test recommendation.

For others: MA 103, MA 104, or MA 105 with a grade of C- or better.

**Office Hours:** 2:00-2:50 PM, M-W-Th-F.

I am in and out of the office throughout the day and am willing to meet with students who drop in at other times if whatever I am doing can be set aside. To be sure I will be there when you can come, make an appointment.

## **Course Materials:**

Textbook: GENERAL STATISTICS, 4th edition, Warren Chase and Fred Bown, John Wiley and Sons, Inc., 2000.

## **Content:**

**Topics:** The course will provide an introductory survey of probability and statistics. The subjects covered will include basic concepts of probability such as random variables, probability distributions, and mean and variance, and both descriptive and inferential statistics, including topics such as hypothesis testing and confidence intervals, regression and correlation, analysis of variance. The content will be taken from Chapters 1 through 11 in the text.

**Computer and Calculator Usage:** You will be expected to learn to use either your computer or a calculator to perform some computations involving statistics, and will be tested on this knowledge. The University has a site license for Minitab, a statistical software package which will be available for installation onto your laptop computers, as well as for TI Interactive!, which ought to be there already. These packages will do everything that we need. In some cases, a good calculator will also be sufficient, and can be used when appropriate.

**Expectations Regarding Writing:** One of the very important aspects of dealing with statistical issues is being able to communicate accurately and clearly about statistics. For this reason, there will be an emphasis in the course on developing the students' written communications skills. Good writing will be expected, and writing quality will be taken into account in the grading.

**Grading:** Course grades will be based on scores of 5 to 8 unannounced quizzes, 4 hour exams, one or two group project reports, equivalent to one hour exam, and a final exam, which will be weighted the same as two hour exams. The two lowest quiz scores will be thrown out, and the remaining quiz scores will together be equivalent of an hour exam. The final grade will be based upon the average of the best 7 of the 8 scores resulting from the quiz average, the 4 hour exams, the project report(s), plus the doubly

weighted final exam. The grading scale will be absolute: A = 93-100; A- = 90-92; B+ = 87-89; B = 83-86; B- = 80-82; C+ = 77-79; C = 73-76; C- = 70-72; D+ = 67-69; D = 63-66; D- = 60-62; and F = 0-59.

**Make-up policy:** Quizzes cannot be made up. A missed quiz will be a zero, and you will have to be one of your throw-away quizzes. Hour exams can be made up for valid reasons of health or family emergency. Prior notification of your missing a test is expected whenever possible.

**Attendance policy:** Regular attendance at class is expected, and is essential for success in the course.

**Schedule:** The daily schedule to be given will be followed reasonably closely. Coverage of topics may vary up to a few days from the dates indicated on the schedule. Test dates, however, will remain fixed. It is expected that students will work the assigned problems. Again, this is essential for success in the course.

**Some Planned Make-Up Sessions:** I need to be away for two planned trips during the semester. As a result, I hope to be able to use several Tuesdays at 1 pm for make-up sessions. See the daily schedule for details.

**Special Needs:** If you have a need for disability-related accommodations or services, please inform the Coordinator of Disability Services in the Disability Services Office at 1104 University Center (227-1737). Reasonable and effective accommodations and services will be provided to students if requests are made in a timely manner, with appropriate documentation, in accordance with federal, state, and University guidelines.

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## MA 171 Introduction to Probability and Statistics Daily Schedule

<u>Date</u>	<u>Sections</u>	<u>Problem Assignment</u>
Aug. 26	1.1-1.4	p.3: 1-22; p.9: 23-28; p. 15: 29-37
28	2.1-2.3	p. 27: 1-14; p. 35: 15-30
29	2.4-2.6	p. 40: 31; p. 44: 32-40
30	2.7-2.8	p. 55: 41-58; p. 66: 59-70
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Sept. 2	Labor Day - No Class	
4	2.9-2.10	p. 72: 71-78; p. 78: 79-88
5	3.1-3.2	p. 110: 1-24
6	3.2-3.3	p. 130: 245-46
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9	3.3-3.4	
11	Review for Test 1	
12	Test 1	
13	Discuss Test 1	
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16	4.1-4.2	p. 154: 1-9
18	4.3-4.4	p.158: 10-23; p.167: 24-33
19	4.5	p.174: 34-48
20	4.6	p. 181: 49-57
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23	5.2	p. 196: 11-18
25	5.3	p. 201: 19-28
26	5.4	p. 208: 29-40
27	5.5	p. 217: 41-64
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30	6.1-6.2	p. 230: 1-4
Oct. 2	6.3-6.4	p. 240: 5-12
3	6.4	
4	6.5	p. 250: 13-24
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7	6.6	p. 257: 25-38 9 6.7 P.266: 39-48
10	Review for Test 2	
11	Planning-Conference Day No Classes	

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Oct. 14	Test 2	
16	Discuss Test 2	
17	7.1-7.2	p.283: 1-24
18	7.2-7.3	p. 299: 25-38

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21	7.3	
22	7.4	p. 304: 39-54 (Tues. make-up for 10-25)
23	7.5	p. 320: 55-82
24	7.6	p. 335: 83-114
25	No class. Replaced by make-up session on Tues. Oct. 22.	

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28	8.1-8.2	p. 352: 1-12
30	8.2-8.3	p. 361: 13-20
31	8.3	

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Nov. 1      No class. Campus-wide conversation activities

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4	Review for Test 3	
6	Test 3	
7	Discuss Test 3	
8	9.1-9.2	

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11	9.4	p. 405: 15-26
12	10.1-10.2	p. 437: 1-12 (Tues. make-up for 11-15)
13	10.2-10.3	p.450: 13-26
14	10.3	
15	No class. Replaced by make-up session on Tues. Nov 12	

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18	No class. Replaced by make-up session on Tues. Nov. 26	
20	Statistical software session	
21	11.1-11.2	p.471: 1-14
22	11.2-11.3	p.482: 15-21

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25 11.3  
26 Review for Test 4 (Tues. make-up for Mon. Nov. 18)  
27-29 Thanksgiving Recess - No Class

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Dec. 2 Test 4  
4 Discuss Test 4  
5 Review for Final Exam  
6 Review for Final Exam

Final Exam Tuesday, December 10, 12:00 - 1:50 P.M.