

Math 4047/5047

Mathematical Statistics I

Fall 2008

Time: T R 12:45 p.m. – 2:05 p.m.

Place: Gilbreath Hall 205

Instructor: Robert Price, Ph.D.

Email: pricejr@etsu.edu

Office: Gilbreath Hall 312 – B

Office Phone: 439-6981

Office Hours: T R 2:15 p.m. – 3:15 p.m. and also by appointment

Objective: To have an understanding of probability and probability distributions. This course is typically called Distribution Theory.

Text: Hogg, R. V., and E. A. Tanis, *Probability and Statistical Inference*, 7th ed., Prentice Hall, NJ, 2006.

Supplemental Text: Casella, G., and R. L. Berger, *Statistical Inference*, 2nd ed., Duxbury, 2002.

Software: Matlab, Minitab, R, SAS, Maple

Prerequisite: Math 2050, 2210 and 2250

Course Evaluation:

| | % of grade |
|--------------|------------|
| Homework | 33.3 |
| Midterm Exam | 33.3 |
| Final Exam | 33.3 |
| <hr/> | |
| Total | 100 |

Comments:

- (A) We will be using statistical software programs to solve some of the applied problems.
- (B) We will also be using software to solve many of the numerical exercises. The CD-ROM that comes with the text contains a folder with supplementary Maple programs that are useful in probability and statistics.
- (C) Late homework will not be graded.
- (D) You are encouraged to cooperate with each other on the homework.
- (E) You will be asked to present homework problems in class.
- (F) LEARNING DISABILITY: Students requesting special assistance due to a learning disability must show proof that they have properly registered their disability. Call Disability Services at 439-4841 for information.
- (G) The final examination will be administered on Thursday, December 10, 2008 from 1:20 p.m. to 3:20 p.m.

Grading Scale:

| | | | |
|----|-----------------------------------------------------------------------------------------------------|----|--------------------|
| A | Average of 92 – 100 | C+ | Average of 67 – 71 |
| A- | Average of 87 – 91 | C | Average of 60 – 66 |
| B+ | Average of 82 – 86 | C- | Average of 50 – 59 |
| B | Average of 77 – 81 | D+ | Average of 45 – 49 |
| B- | Average of 72 – 76 | D | Average of 40 – 44 |
| F | Average less than 40 or for academic misconduct or an extremely low grade on the final examination. | | |

DEPARTMENT ATTENDANCE REQUIREMENTS: (approved February 28, 1994)

The Department of Mathematics strongly advises students to attend all mathematics classes when physically able. Because there is a positive correlation between attendance and student success in mathematics, the following attendance guidelines will be used in all mathematics courses. Regardless of the reasons for the absences, should a student exceed the following limits, the instructor has the authority to assign a grade of F or W. This policy supersedes the grade assignment policy separately for MATH 1710 and MATH 1530:

- 7 absences for classes scheduled for MWF.
- 5 absences for classes scheduled for TX classes or any 2 day (nights) per week and SUMMER DAY CLASSES.
- 3 absences for classes scheduled for one evening per week.
- 9 absences for all daytime sections of 4-hour classes.

| Monday | Tuesday | Wednesday | Thursday | Friday |
|-------------------|---------------------|-----------|--------------------|---------------|
| Aug 25 | 26 Intro; Ch.1.1 | 27 | 28 Ch.1.2 | 29 |
| Sept 1 HOLIDAY | 2 Ch.1.3 | 3 | 4 Ch.1.4 | 5 |
| 8 | 9 Ch.1.5 | 10 | 11 Ch.1.6 | 12 |
| 15 | 16 Ch.2.1 | 17 | 18 Ch.2.2-2.3 | 19 |
| 22 | 23 Ch.2.4 | 24 | 25 Ch.2.5 | 26 |
| 29 | 30 Ch.2.6 | Oct 1 | 2 Ch.3.1-3.2 | 3 |
| 6 | 7 Ch.3.3-3.4 | 8 | 9 Ch.3.5 | 10 |
| 13 FALL | 14 BREAK | 15 | 16 Ch.3.6 | 17 |
| 20 | 21 EXAM | 22 | 23 Ch.4.1 | 24 |
| 27 | 28 Ch.4.2 | 29 | 30 Ch.4.3 | 31 |
| Nov 3 | 4 Ch.4.4 | 5 | 6 Ch.4.5 | 7 |
| 10 | 11 Ch.4.6 | 12 | 13 Ch.4.7 | 14 |
| 17 | 18 Ch.5.1-5.2 | 19 | 20 Ch.5.3 | 21 |
| 24 | 25 Ch.5.4-5.5 | 26 | 27 THANKSGIVING | 28 HOLIDAY |
| Dec 1 | 2 Ch.5.6-5.7 | 3 | 4 Review | 5 Last Day |