IEE 2610 ENGINEERING STATISTICS

Course Syllabus

Catalog Description: Introduction to statistical methodology emphasizing applications in engineering. Topics include descriptive and inferential statistics, regression, analysis of variance, and design of experiments.

Prerequisites: MATH 1220 or MATH 1700 (Calculus I). Lecture Hours - 2; Lab Hours - 3

Instructor: Dr. Diana Prieto - Industrial and Entrepreneurial Engineering & Engineering Management (IEE & EM) Office: Floyd E-213 Phone: (269) 276-3342 Email: diana.prieto@wmich.edu

Required Textbook, Manual & Software:

- Probability and statistics for engineers, 5th edition
  Richard L. Scheaffer, Madhuri S. Mulekar and James T. McClave, Brooks/Cole, 2011 (ISBN: 9781285329918). Note: Unlicensed photocopies of the textbook will not be allowed into lectures or the tests.
- IEE 2610 Lab Manual: The manual is available online in the link: http://www.megeeonline.com/my- course-pack/. Once you are in the webpage, click on the link "Order Course Pack", which opens a new window. In the new window, write "Statistics Prieto" in the space that asks you to search for titles. You should be able to purchase the manual there. You can either pick up or have the manual sent to you. The address for immediate pick up is 509 Mills St., Kalamazoo, MI. If you choose to have your course pack delivered, you will receive a confirmation email with a USPS tracking number. Please bring your lab manual to each laboratory session.
- Software: MINITAB Release 17, MINITAB, Inc. This software is available for free through your GoWMU page (in the link "Other Software and License Files" located in the "Software Downloads" section of the page). Please go to the CEAS support center if you need assistance with the installation of the software.

Course Objectives	Performance Criteria Measured
1. To use graphical and descriptive statistics to summarize and display engineering problem information.	Identifies ethical dilemmas and proposes solutions.
2. To employ inferential statistics to solve engineering problems.	Applies appropriate statistical techniques.
3. To plan and conduct fundamental experiments of design, analyze the results, and make recommendations based on the analysis.	Gathers and uses data to assess processes and products.
4. To apply basic linear regression techniques in an engineering context.	

Evaluation: Your final grade will be based on the following:

(1) Laboratory Assignments	15%
(2) Electronic quizzes	5%
(3) Homework Assignments	10%
(4) 3 In-Class Tests	45%
Best of 3 tests:	20%
Second Best of 3 tests:	15%
Worst of 3 tests:	10%
(5) FINAL EXAM	25%
	100%

Grading Scale:

90 - 100	A
85 – 90	BA
80 – 85	B
75 – 80	CB
70 - 75	C
65 - 70	DC
60 - 64	D
Below 60	E

Attendance Policy: Attendance is mandatory for both lecture and laboratory sessions. A student will receive a score of zero for any assessment/evaluation item not submitted because of absence (this includes quizzes, lab assignments, homework, tests, and final exam). Extreme circumstances and religious observance will be considered on an individual basis; however, arrangements should be made prior to the date of the corresponding lab or lecture period when reasonably possible and supporting documentation is required.

Academic Honesty Policy: You are responsible for making yourself aware of and understanding the policies and procedures in the Undergraduate and Graduate Catalogs that pertain to Academic Honesty. These policies include cheating, fabrication, falsification and forgery, multiple submission, plagiarism, complicity and computer misuse. [The policies can be found at http://catalog.wmich.edu under Academic Policies, Student Rights and Responsibilities.] If there is reason to believe you have been involved in academic dishonesty, you will be referred to the Office of Student Conduct. You will be given the opportunity to review the charge(s). If you believe you are not responsible, you will have the opportunity for a hearing. You should consult with your instructor if you are uncertain about an issue of academic honesty prior to the submission of an assignment or test.

Electronic Devices: Cell phones must be silenced during lecture, labs, and testing periods. Music devices (e.g., iPods) are not to be used during lecture, lab or testing periods. Headphones must be removed from the ears, even if the connected device is turned off or the headphones are unplugged. Your computer should also be turned off during the lecture periods unless you are using it for note taking.

Homework Assignments: Homework assignments will be posted on the course webpage. Assignments are due at the DURING THE FIRST FIVE MINUTES of your assigned lecture period on the date indicated. Late assignments will NOT be accepted. Assignments will be returned during your lab session. Please place your Lab Group Number (see last page of syllabus) and your Lab Instructor's Name at the top of the first page of each assignment. You will be allowed to drop your lowest homework grade (including a missed homework).