



Syllabus for EGR 252.001
Applications of Engineering Mathematics
Fall Semester 2009
TR 10:50 – 12:05
Room EGC 217/216B

Instructor: Dr. Laura Moody, Associate Professor
Department of Industrial Engineering & Industrial Management

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Textbooks and Supplies:

Required: Walpole, R.E., Myers, R.H., Myers, S.L., & Ye, K. (2002). *Probability & Statistics for Engineers & Scientists (7th ed.)* Upper Saddle River, NJ: Prentice Hall. (ISBN 0-13-041529-4)

Recommended: Berk, K.N. & Carey, P. (2004) *Data Analysis with Microsoft[®] Excel*. Belmont, CA: Brooks/Cole – Thomson Learning. (ISBN 0-534-40714-5)

Web Site: Mercer Blackboard (<http://www.mercer.edu/webct/>)
http://faculty.mercer.edu/moody_le/egr252.htm

Class Listserv: egr25200109f@mercer.edu

Bulletin Description: Techniques and applications of probability and statistics. Variability and representation of data. Laws of probability, random variables and distributions. Confidence intervals and statistical hypothesis testing. Quality control and statistical inference. Design of experiments. Regression analysis. Use of spreadsheets and statistical software packages.

Course Objectives: Upon successful completion of this course, you should be able to do the following:

1. Use probability and statistics particularly in the areas of
 - a. Representation of data
 - b. Statistical inference
 - c. Design of experiments
 - d. Regression analysis
2. Use software programs such as Excel and Minitab to perform analyses.

Prerequisites: C or better in MAT 191

Grading:

Online quizzes	15%
Exam 1	15%
Exam 2	15%
Exam 3	15%
Final Exam	25%
Exercises	15%

Course Standards:

1. Homework problems will be assigned daily, and will be reviewed during the class period following the assignment. You are encouraged to work in groups on the homework, but be aware that relying on another's work or simply copying another's solution is a poor way to prepare for this course. Similarly, do not assume that being able to follow another person's explanation of the solution is an indicator that you truly understand how to solve similar problems. Working on a problem for the first time on a quiz or exam usually results in very poor grades.
2. After we have had a chance to review the homework in class, an **Online Quiz** will be assigned and you will be given 1 or 2 class periods to complete it (the due date will be given on each quiz assignment). If technical difficulties prevent you from completing the quiz in the time allotted, you may be given an option of taking a paper quiz under the following conditions: 1) you inform me of the technical difficulty before the beginning of class on the day the online quiz is due; and, 2) the paper quiz will be given the same day as the online quiz is due and you will usually have 15 minutes to complete the quiz. Your lowest online quiz grade will be dropped when the final grade is calculated.
3. **Midterm exams** will be closed-book, closed-notes. You will be allowed to bring in one 8½ x 11 sheet of notes in your own handwriting and I will provide all necessary tables from the appendix. The final exam will be open-book, closed-notes.
4. Several lessons during the semester are identified as **Exercises**. These will be worked in groups of two or three. Your submission of the exercise signifies that you have complied with the Mercer Honor Code and the work on the exercise represents *solely* the efforts of your group. Detailed requirements will be given with each exercise, but merely submitting several pages of numbers will in no case be sufficient – in every case, you should have sufficient explanatory material to define for the reader your objective, how you went about your analysis, and your conclusions. In an exceptional circumstance you may petition to hand in an assignment late. If granted, the grade will be reduced one letter grade per day late.
5. File-naming conventions for electronically submitted documents will be prescribed in order to avoid needless confusion. Please be sure to include "EGR 252" in the title of the email, followed by a specific descriptive subject (e.g., "EGR 252 homework 1 question"). Set your email so as to assure that you get a time-and-date confirmation of any assignments submitted electronically. You are responsible for using the correct mailing address either to me individually, or to the class listserv.
6. Students are expected to attend all classes. Although failure to attend class in itself will not adversely affect your final grade, good attendance, class participation, and a good homework record will be looked upon favorably.
7. Reading assignments are to be completed by the date shown on the schedule. Additional or supplemental readings will be assigned as needed. The student is accountable for the material in the readings regardless of their inclusion in the lectures.

8. Please turn off cell phones and pagers before entering the classroom.
9. The **honor code** provisions as outlined in the *Bulletin* and in the student handbook, *The Lair*, will be assumed for everyone. It should be clear from this document and class discussion which assignments can be collaborative and which ones must be individual. When in doubt, please ask to avoid potentially embarrassing situations. Plagiarism is a violation of the honor code and is prohibited.
10. Students requiring accommodations for a disability should inform the instructor at the close of the first class meeting or as soon as possible. If you are not registered with Disability Services, the instructor will refer you to the Disability Support Services office for consultation regarding documentation of your disability and eligibility for accommodations under the ADA/504. In order to receive accommodations, eligible students must provide each instructor with a "Faculty Accommodation Form" from Disability Services. Students must return the completed and signed form to the Disability Services Coordinator on the 3rd floor of the Connell Student Center. Students with a documented disability who do not wish to use academic accommodations are also strongly encouraged to register with Disability Services and complete a Faculty Accommodation Form each semester. For further information, please contact Carole Burrowbridge, Disability Services Coordinator, at 301-2778 or visit the website at http://www.mercer.edu/stu_support/swd.htm
11. This syllabus is subject to change. Changes will be announced in class and will appear on the class web site.