STA 3032 Engineering Statistics – Summer B 2011

Section 4718: MTWRF 2nd period (09:30 – 10:45) in TUR L005
Prerequisite: MAC2311

Instructor:

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Course Web Address: http://www.stat.ufl.edu/~dathien/sta3032.html
Office Hours: Office Hours subject to change and will be posted on the course website

Teaching Assistants:

Yuan Liao (yliao@stat.ufl.edu) & Yuanzhou Yang (yyang@stat.ufl.edu)
Office: Griffin Floyd 209 / McCarty C 401
Phone:
Office Hours: Office Hours subject to change and will be posted on the course website

Course Description:
A survey of the basic concepts in probability and statistics with engineering applications. Topics include probability, discrete and continuous random variables, estimation, hypothesis testing and linear and multiple regression.
[General Education: Mathematics (M), Math Requirement (MR)]

Course Materials Required:

1) *Statistics for Engineers and Scientists 3rd Edition* by William Navidi [ISBN: 978-0-07-337633-2]

2) Calculator capable of calculating means and standard deviations

Additional Material:
Examples to topics covered in the class will be provided but due to time restrictions and the fact that some theoretical results and procedures need to be covered, it is strongly recommended that students look at additional examples/problems in the 2nd edition of the book and in *Probability and Statistics for Engineering and the Sciences* by Jay L. Devore (any edition). These books and solution manuals are available in the Marston Science Library.

Statistical software:
Some assignments require the use of statistical software, such as Minitab (a statistical computing package) and tests will use Minitab printouts. Minitab can be found on the CIRCA lab computers, may be purchased at a campus bookstore. You may download Minitab free for 30 days at www.minitab.com.

Homework and Quizes:
There will be 10-20 problems assigned each week. These will not be collected. However, one or more of these questions will be a quiz question. There will be **a 5 minute quiz every Wednesday and Friday**, based on the assigned homework questions. The lowest quiz grade will be dropped. You are encouraged to go to the TA's for help with the homework/quizzes.

Exams: There will be four (4) in-class exams (1 hour each), given on the dates listed below.

Exam 1: July 8th
Exam 2: July 19th
Exam 3: July 28th
Exam 4: August 5th

Each exam is composed of multiple choice questions (approximately 75%) and some open-ended questions.

If a student is unable to take an exam at the scheduled time, they must notify the instructor as early as possible. If an emergency situation precludes an advance arrangement, you should let the instructor know within 24 hours of the missed exam. Each case will be reviewed individually. You will be required to provide official documentation to be eligible for make-up examination.

Grades:
Each exam is worth 20% the final grade and the quizzes the additional 20%.
Note: Lowest exam's weight of final grade may be reduced and highest exam's increased.

Grading Scale:
The grading scale will be as follows:

A:	93-100%,	A-:	88-92%,		
B+:	85-87%,	B:	81-84%,	B-:	78-80%,
C+:	75-77%,	C:	71-74%,	C-:	68-70%,
D:	56-67%,				
E:	< 55%.				

It is the policy of the Department of Statistics not to give grades of D+. To see the effect of the + and – grades on your GPA, look at the following link:
http://www.registrar.ufl.edu/catalog/policies/regulationgrades.html.

Course Policies:
Academic Dishonesty: I adhere to the University of Florida rules and guidelines for handling instances of academic dishonesty. Please refer to the Office of Students Services for detailed information about the current policies.

Instructor's Honor Code: We the members of the University of Florida community pledge to hold ourselves and our peers to the highest standards of honesty and integrity.

Grading: Grades will be changed only when an error has been made by the instructor.

Incomplete: Incompletes are only assigned when extraordinary circumstances, arising after the date for dropping off the course, prevent the student from completing the course requirements. The student must be currently passing the course and discuss the circumstances with the instructor before the final exam takes place. Having a failing grade in the course is not a valid reason for requesting an incomplete.

Getting Help: Students may ask questions during the lectures (preferred) or the office hours. The TAs will answer questions during office hours. A list of private tutors (if needed) may be obtained from the Statistics Department Secretary in Griffin Floyd 103.

Students with disabilities: Students requesting classroom accommodation must first register with the Dean of Students office. The Dean of Students will provide documentation to the students who must then provide this documentation to the Instructor when requesting information.

Privacy Policies: Student records are confidential. Only information designated "UF directory information" may be released without your written consent. UF views each student as the primary contact for all communication. If your parents contact me about your grade, attendance or other information that is not "UF directory information". I will ask them to contact you.

The instructor reserves the right to update any parts of this syllabus as necessary. Students will be notified of any changes.

Tentative schedule:

	Subjects	Sections
1	Numerical and graphical summaries	1.1 – 1.3
2	Basic Ideas of Probability	2.1 – 2.3
3	Random Variables (RV), Jointly Distributed RV	2.4, 2.6
	Exam - 1	
4	Discrete Distributions	4.1 –
5	Continuous Distributions, CLT	4.11
6	Confidence interval for population means	5.1, 5.3, 5.4, 5.6
7	Confidence interval for population proportions	5.2, 5.5, 5.7
	Exam - 2	
8	Significance tests for population means	6.1, 6.4
9	Significance tests for $\mu_1 - \mu_2$, p, $p_1 - p_2$	6.3, 6.5, 6.6, 6.7, 6.8, 6.11
	Exam - 3	
12	Simple Linear Regression and Correlation	7.1 – 7.4
13	Multiple Linear Regression	8.1 – 8.4
14	One-way ANOVA	9.1 – 9.2
15	Statistical Quality Control	10.1 – 10.2
	Exam - 4	

There will be no classes on the following days:
July 4th