Syllabus – Course Information and Policies

Statistics 215 – Fall 2013 Engineering Statistics

Instructor Dr. Gayla R. Olbricht

Email: olbrichtg@mst.edu – Please put STAT 215 in the subject line

Office: 215 Rolla Building Office Phone: 341-4913

Office Hours 2:00-3:00 PM Tues/Thurs, 1:00-2:30pm Wed, or by appointment

Important information about the course will be available on the Blackboard site for this course (http://blackboard.mst.edu/). Information you can find on the blackboard site

includes: syllabus, contact information, course announcements, handouts, assignments and solutions, exam information, and grades. Please check the course Blackboard site

regularly as it will be updated continuously throughout the semester!

Lectures Section 1C: 12:30-1:45 PM, Tues/Thurs, Toomey Hall 256

I plan to begin and end each class promptly – please be on time. <u>Cell-phones and other</u> electronic devices should be turned off while in class. Brief on-topic questions during

class are welcomed and encouraged.

Attendance <u>Excellent attendance is expected and required.</u> Students with 3 or more absences will

receive an academic alert. With 5 or more absences, the student may be dropped from

the course.

Text Probability and Statistics for Engineering and the Sciences, 8th Edition, by Jay L.

Devore. (Required)

Course Description An introduction to statistical methods in engineering and the physical sciences dealing

with basic probability, distribution theory, confidence intervals, significance tests, and

sampling. Credit will be given for only one of Stat 211, 213, 215 or 217.

Prerequisites Competence in Calculus as demonstrated in successful completion of Math 15 or 21

with a grade of "C" or better.

Goals To introduce students to basic probability models and statistical methods that will be of

use in their careers as engineers and scientists. While the emphasis will be on the use of probability models and statistical methods, attention will be paid to the basic theory that

underlies these tools.

Topics Covered We will cover chapters 1-5 and 7-8 of the text. Chapter 12 and additional topics may be

covered if time permits. Topics for these chapters are:

Chapter 1 – Populations, samples, and descriptive statistics

Chapter 2 – Probability Laws

Chapters 3 & 4 – Random variables and probability distributions

Chapter 5 – Joint Probability Distributions & Random Sampling

Chapter 7 – Confidence Intervals

Chapter 8 – Hypothesis Testing

Chapter 12 – Simple Linear Regression (time permitting)

Homework

There will be problem sets assigned every week. Homework will typically be assigned on Thursdays or Fridays and due the following Thursday, *at the beginning of class*. Please check the Blackboard site for homework assignments and due dates. Grades and solutions to all assigned problems will be posted on Blackboard after the due date.

<u>Late homework will not be accepted under any circumstances and will receive a score of zero</u>. To allow for situations beyond your control (e.g., illness, family emergencies) your lowest homework score will be dropped. If you know in advance that you will not be able to turn in the homework on the due date, please make arrangements with the instructor <u>prior to</u> the homework due date for submitting your assignment.

Homework solutions submitted for grading should be legible and neat. <u>You must show</u> <u>your work.</u> Both the correctness of the answer and work that you show are considered in grading.

For each assignment, all or only a subset of problems may be graded, but the problems to be graded will NOT be announced in advance. The solutions to all problems will be posted after the assignment is due, so that you can check answers for problems that were not graded. After receiving back your graded homework, it is your responsibility to check to make sure the grade recorded on Blackboard is accurate. Let your instructor know within one week of receiving your assignment back if there is a discrepancy.

Exams

There will be three required exams, the first two will be held in class and the third will be held during finals week. The in-class exams are **tentatively** scheduled for the class periods on **Thursday**, **September 19**th and **Thursday**, **October 24**th. The final will be held during the university's finals week on **Tuesday**, **December 10**th, **from 4:00-6:00 PM in Toomey 256**.

Exams will be closed book, but you may bring one sheet of handwritten notes to each exam. The sheets should be standard 8.5 x 11 paper and may be <u>hand-written</u> on both sides. You will also need a calculator for the exams. You may not share notes or calculators during the exams. <u>All work on exams must be entirely your own and academic dishonesty will not be tolerated.</u> It is just as dishonest to give help as to receive it.

In the event you must miss an exam for a university validated reason such as illness, university documented absence, or death in your family, you must (a) notify me by email or in person at least one week prior to the exam date (if possible) AND (b) provide appropriate documentation in order to receive a makeup exam. If you are missing the exam due to an emergency, you must email me with details of your situation within 24 hours of the scheduled exam time and follow up with appropriate documentation. Also, please note that airline schedules, planned family trips, or work DO NOT constitute valid reasons to receive a makeup exam.

Your final grade will be determined as follows:

Grading

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Homework: 25%
Test 1: 25%
Test 2: 25%
Test 3: 25%
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The percentage grades needed to achieve an A, B, C, or D will follow approximately the following scale: 90 - 100 = A, 80 - 89 = B, 70 - 79 = C, 60 - 69 = D, 0 - 59 = F. If you registered S/N a grade of C or higher is needed to earn an S.

Computing

All students should have a portable scientific calculator. Bring this to class. You will also need the calculator for the Exams. We will also occasionally use the statistical software Minitab. This can be accessed in some computer labs on campus.

Disability Services

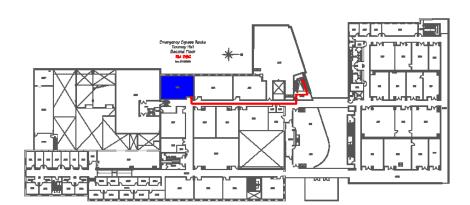
If you have a documented disability and anticipate needing accommodations in this course, you are strongly encouraged to meet with me early in the semester. You will need to request that the Disability Services (http://dss.mst.edu/) staff send a letter to me verifying your disability and specifying the accommodation you will need before I can arrange your accommodation.

Academic Dishonesty

Academic dishonesty is not tolerated and will be dealt with as specified in the Missouri S & T Student Academic Regulations policy. This policy is located online at the following address: http://registrar.mst.edu/academicregs/index.html. Academic dishonesty includes, but is not limited to cheating, plagiarism, or sabotage.

Emergency Egress Route

In case of an emergency, the egress route for evacuation of our classroom is depicted below.



Changes to Syllabus

I reserve the right to make changes to this syllabus. Any such changes will be announced in class.