Syllabus

COURSE AND CONTACT INFORMATION
Course: Statistics 1051
Semester: Fall 2011
Time: Monday and Wednesday 6:10-7:25 PM
Locations: Phillips Hall, B-152

INSTRUCTOR
Name: Darius Singpurwalla
Campus Address: None
Phone:
E-mail: dsingpur@gwu.edu
Office hours: Mondays after class

TA
Name: TBD
Dept. of Statistics
2140 Pennsylvania Avenue NW,
Washington, D.C. 20052
Phone :
Fax :
Email : TBD
Office hours: TBD

COURSE DESCRIPTION
This is an introductory course in statistics. We will focus on understanding the mechanics of statistics as well as how we can use statistics to make decisions. The main thrusts of the course will be calculating basic statistical techniques, applying them in the appropriate situation, and how the tests work. The student will also leave the course with a basic understanding of how to manipulate data, graph, and perform statistical calculations using Microsoft Excel.

COURSE PREREQUISITE(S)
None

TEXTS
Author : Moore
Title: The Practice of Statistics for Business and Economics
Edition: Third Edition

LEARNING OUTCOMES:
At the end of the semester you should be able to
--apply laws of probability
--construct and interpret large-sample and small-sample confidence intervals
--evaluate evidence for and against hypotheses using statistical tests
--find the least-squares equation for simple linear regression and assess the utility of the model

GRADING
- Homework 25%
  - Homework problems will be a selected set of problems from the textbook. They will be selected to test your understanding of the mechanics and underlying principles. Late HW’s will be accepted with a 5% deduction of points for each day it is late. Late HW’s will be accepted up to one week late. If you do not hand in the HW within one week after it’s due date, you cannot receive any credit for completing the assignment.
- Team Projects 20%
  - **Indicators Case Study.** The case study will focus on descriptive statistics and graphing by developing a set of statistical indicators to assess a particular topic. All case studies are to be typed. In general, they should be less than 5 pages, including graphs. All graphs are to be done in Excel. The specific details will be given after we cover chapters one and two of the text.
  - **Group Project.** The group project will be a sophisticated analysis project which you will work on together as a team. The details of the project will be revealed in the second half of the semester. At the end of the course, your team will present your findings to the class during a poster presentation.
- First Exam (Online): 20% The first exam will be after we cover probability distributions.
- Second Exam (Online): 20% The second exam will cover the remaining sections in class.
- Quizzes and In Class Activities (ICA): 15%.
  - There will be a brief in-class quiz, every few weeks at the beginning of class, on Wednesdays (specific dates will are included in the syllabus). The quiz will cover material from only the last two class periods and should take about 10-15 minutes to complete. You can use 1 page (front and back of an 8 ½ x 11 piece of paper) of notes for the quiz but experience has shown me that students who rely too heavily on their notes do not do as well as those who are prepared.
  - ICA’s are activities that we will do during class time to reinforce material.
  - There are no make-up on ICA's and quizzes.

NOTE: IN ACCORD WITH UNIVERSITY POLICY, THE FINAL EXAM WILL BE GIVEN DURING THE FINAL EXAM PERIOD AND NOT THE LAST WEEK OF THE SEMESTER

CLASS POLICIES
• Attendance Policy: I don’t take attendance. However, when you are in class, there will be no talking, no text messaging, IM’ing, browsing the internet. This is distracting to me and to fellow students.
• The general format of the class will be as follows: Monday's we cover conceptual material for the course; Wednesday's will focus on going over practice problems with the TA.
• Two examinations will be given throughout the semester. The exams will be given online and you will have 2 hours (the time you would have in class, to complete it). The first exam will cover material through probability distributions. The second exam, with the exception of one question, will cover the remaining course material and will be given during the scheduled final exam period. To prepare you for taking the online exam, I will give a pre-test before the first exam. The pre-test will not count toward your grade. If students are uncomfortable with the format of the online exam based upon the pre-test, then we can switch to a traditional setting. There will be no difference between the questions on the online exam vs. the paper pencil exam. Since the exam is given online, you can use your books and notes during the exam.
• Homework is due to the TA during the recitation period. The TA will handle all HW grading, solution sheets, and maintaining the grade on Blackboard. Please do not give me HW to give to the TA, or put HW in my box at the statistics department. Since I am an adjunct instructor, I do not check my mailbox very often at the statistics department. Hand in assignments to myself of the T.A. If an assignment is due on a day you have to miss class, please give it to a fellow student to hand in.
• Please keep me aware of specific religious holidays so I won’t schedule any ICA’s on that day.
• Email Communication: Logistical questions about the class will not be answered over email. Please ask these questions during class for the benefit of everyone. I will answer content questions over email.
• Stat 1051, 1053, and 1111 cover the same material. Only one of these can be taken for credit.

COURSE GRADING
The course is not graded on a curve. Your homework and exams will be combined according to the percentages shown in the syllabus. Final grades will be assigned based on the scale below:

<table>
<thead>
<tr>
<th>Percentage Range</th>
<th>Grade</th>
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<tbody>
<tr>
<td>92% - 100%</td>
<td>A</td>
</tr>
<tr>
<td>90% - 91.9999%</td>
<td>A-</td>
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<tr>
<td>88% - 89.9999%</td>
<td>B+</td>
</tr>
<tr>
<td>82% - 87.9999%</td>
<td>B</td>
</tr>
<tr>
<td>80% - 81.9999%</td>
<td>B-</td>
</tr>
<tr>
<td>78% - 79.9999%</td>
<td>C+</td>
</tr>
<tr>
<td>72% - 77.9999%</td>
<td>C</td>
</tr>
<tr>
<td>70% - 71.9999%</td>
<td>C-</td>
</tr>
<tr>
<td>65% - 69.9999%</td>
<td>D+</td>
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Unless a computational error has been made, grades will not be changed after the end of the semester. Keep up with your scores in Blackboard. I will not make adjustments for missing work after two weeks from when the assignment was returned to you. Also, please do not come seeing extra-credit opportunities; course grades are based on the above calculations.

**CLASS SCHEDULE (this is approximate)**

<table>
<thead>
<tr>
<th>Week</th>
<th>Material</th>
<th>Lab</th>
<th>Other</th>
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<tbody>
<tr>
<td>1</td>
<td>Syllabus Day &amp; Get to Know You</td>
<td>Excel</td>
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<td>2</td>
<td>Labor Day</td>
<td>Excel (continued)</td>
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<td>3</td>
<td>Introduction and Statistical Thinking</td>
<td>Excel (Continued)</td>
<td>ICA on Monday</td>
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<td>4</td>
<td>Descriptive Statistics &amp; Graphing</td>
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<td>5</td>
<td>Collecting Data</td>
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<tr>
<td>6</td>
<td>Introduction to Probability</td>
<td>Quiz #1</td>
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<td>7</td>
<td>Probability Continued</td>
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<td>8</td>
<td>Discrete Random Variables</td>
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<td>9</td>
<td>Continuous Random Variables</td>
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<td>ICA on Monday</td>
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<tr>
<td>10</td>
<td>Introduction to Statistical Inference and Sampling Distributions &amp; Review</td>
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<tr>
<td>11</td>
<td>Midterm</td>
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<td>12</td>
<td>Confidence Intervals</td>
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<td>13</td>
<td>Hypothesis Testing</td>
<td>Quiz #3</td>
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<td>14</td>
<td>Two Sample Tests</td>
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<td>ICA on Monday</td>
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<tr>
<td>15</td>
<td>Simple Linear Regression and Correlation</td>
<td>Quiz #4</td>
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<tr>
<td>16</td>
<td>Poster Session</td>
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**ACADEMIC INTEGRITY**
I personally support the GW Code of Academic Integrity. It states: “Academic dishonesty is defined as cheating of any kind, including misrepresenting one's own work, taking credit for the work of others without crediting them and without appropriate authorization, and the fabrication of information.” For the remainder of the code, see: http://www.gwu.edu/~integrity/code.html

**SUPPORT FOR STUDENTS OUTSIDE THE CLASSROOM**

*DISABILITY SUPPORT SERVICES (DSS)*
Any student who may need an accommodation based on the potential impact of a
disability should contact the Disability Support Services office at 202-994-8250 in the
Marvin Center, Suite 242, to establish eligibility and to coordinate reasonable
accommodations. For additional information please refer to: http://gwired.gwu.edu/dss/

UNIVERSITY COUNSELING CENTER (UCC)  202-994-5300
The University Counseling Center (UCC) offers 24/7 assistance and referral to
address students' personal, social, career, and study skills problems. Services for students
include:
- crisis and emergency mental health consultations
- confidential assessment, counseling services (individual and small group), and
  referrals
  http://gwired.gwu.edu/counsel/CounselingServices/AcademicSupportServices

SECURITY
In the case of an emergency, if at all possible, the class should shelter in place. If the
building that the class is in is affected, follow the evacuation procedures for the building.
After evacuation, seek shelter at a predetermined rendezvous location.