AMS 7L  Computer Lab for Statistics  Summer 2017

Course Policies and Syllabus

Instructors:  Cheng-Han Yu
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Lab Sessions:
Tuesday, 2:00 – 3:45PM, Soc Sci 1 135, Cheng-Han Yu
Wednesday, 2:00 – 3:45PM, Soc Sci 1 135, Cheng-Han Yu

It is mandatory to attend the first lab. Attendance is NOT required for lab sessions after the first.

Web page:
We have a course website on Canvas. However, all course materials and lab assignments are in eCommons. Login to your eCommons using your GoldID and password and enter Summer 2017 AMS 7L. The login page for ecommons can be accessed using the url: http://its.ucsc.edu/ecommons

Associated Lectures:
Matthew Heiner, TuTh 9:00AM – 12:30PM, PhysSciences 136

Text:

Course Objectives:
To acquire the technological skills needed to implement methods learned in AMS 7 using the statistical software JMP, and to reinforce various concepts from AMS 7 through computer simulation and data analysis.

Lab Assignments:
Lab assignments will be completed, submitted, and reviewed in eCommons. The labs will be posted in the Tests & Quizzes section.

There are ten lab assignments. Two lab assignments will be posted every Monday at 9:00AM and due the following Monday at 9:00AM with the exception of the last two labs which will be due on 9/1/2017, 9AM, the last day of the summer session 2.

Labs are self-paced and do NOT have a time limit; however, ALL labs MUST be submitted by the posted due date. You do not have to complete lab assignments in one session. There is the option to save assignments in eCommons and return to complete them at a later time. Most lab assignments will consist of multiple sections, each of which you will be expected to complete,
submit, and review one at a time BEFORE starting the next section of the lab. Labs are designed to take approximately 90 minutes to complete all parts combined, but may be shorter or longer depending on your familiarity with the material. You are allowed and encouraged to work on labs along side your peers, but every student is expected to do their own calculations and JMP analysis required by the lab. Academic dishonesty is against school policy.

**Late Work:**
Late submissions will NOT be accepted. The class accommodates missing an entire Lab assignment by taking the highest 9 out of 10 Labs (see Course Grade section below). Therefore, the instructor will adhere to a strict assignment submission policy. Complete the Labs early in the week. Do not wait until the day the assignments are due! In cases of extenuating circumstances, accommodating late work will be left at the discretion of the instructor. In such cases, email the instructor at least 24 hours before the due date of the assignment.

**Student Support:**
Students are encouraged to email the instructor at any time throughout the course. Emails may be sent directly to an instructor or by using the Messages tool in eCommons. Note that last minute emails may not be answered immediately, thus be sure to send your inquiries to instructors well before the due date (don’t wait until the night before to do the lab!) In person appointments may be scheduled if additional help is needed.

All data files used in labs can be found in Resources in eCommons.

**Schedule and Content List:**

<table>
<thead>
<tr>
<th>Lab #</th>
<th>Due Date</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lab 1</td>
<td>8/7, 9AM</td>
<td>Practice with Data Types, Starting JMP.</td>
</tr>
<tr>
<td>Lab 2</td>
<td>8/7, 9AM</td>
<td>Looking at data. Measures of central tendency, Measures of dispersion.</td>
</tr>
<tr>
<td>Lab 3</td>
<td>8/14, 9AM</td>
<td>Relative Frequency, Probability (including Bayes Theorem), Binomial and Poisson distribution.</td>
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<tr>
<td>Lab 4</td>
<td>8/14, 9AM</td>
<td>Means of Normals, Central Limit Theorem, Normal Approximation to Binomial</td>
</tr>
<tr>
<td>Lab 5</td>
<td>8/21, 9AM</td>
<td>Review lab.</td>
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<tr>
<td>Lab 6</td>
<td>8/21, 9AM</td>
<td>Confidence Intervals for Means, Confidence Intervals for Proportions.</td>
</tr>
<tr>
<td>Lab 8</td>
<td>8/28, 9AM</td>
<td>Regression, Residuals and Transformations</td>
</tr>
<tr>
<td>Lab 9</td>
<td>9/1, 9AM</td>
<td>Multiple Regression, Goodness-of-Fit Tests</td>
</tr>
<tr>
<td>Lab 10</td>
<td>9/1, 9AM</td>
<td>Optional lab. Polynomial Regression, Optimization.</td>
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**Course Grade:**
Grades will be based off of a point system. Labs are worth **100 points** each. **60 points** will be awarded simply for completing (and submitting) ALL sections of a lab assignment. Students may
receive **30** completion points if **AT LEAST half** the lab sections are completed (eg. 2 out of 3, 2 out of 4, 3 out of 5, etc.). The remaining **40** points will be awarded for correct answers. **The first nine labs are required**, so that total number of points for the course is **900**. The tenth lab assignment will be available to replace your lowest Lab score. The same rubric applies to Lab 10, **60 points completing ALL elements of the lab and 40 points will be allocated for correct answers**. The percentage of the total points earned (out of 900) will determine a student’s letter grade: **90% - 100% is an A**, **80% - 89% is a B**, **70% - 79% is a C**, **60% - 69% is a D**, and **0 - 59% is an F**. Note that there is **NO +/- grade** and **A+ will NOT be given for people who earn more than 900 total points**.