AMS 7L Computer Lab for Statistics (AMS 7) Fall 2018

Course Policies and Syllabus

Instructors: Sharmistha Guha Matthew Heiner
Email: shguha@ucsc.edu mheiner@ucsc.edu

Lab Sessions:

Monday	9:00 – 10:45 am	Soc Sci 1 135	Guha	***
Monday	11:00 am – 12:45 pm	Soc Sci 1 135	Guha	***
Tuesday	9:00 – 10:45 am	Soc Sci 1 135	Heiner	***
Tuesday	5:00 – 6:45 pm	Soc Sci 1 135	Heiner	***
Wednesday	1:00 – 2:45 pm	Soc Sci 1 135	Heiner	
Wednesday	3:00 – 4:45 pm	Soc Sci 1 135	Heiner	
Thursday	9:00 – 10:45 am	Soc Sci 1 135	Heiner	
Thursday	5:00 – 6:45 pm	Soc Sci 1 135	Guha	
Friday	1:00 – 2:45 pm	Soc Sci 1 135	Guha	
Friday	3:00 – 4:45 pm	Soc Sci 1 135	Guha	

*** These labs will only be offered the first mandatory occurrence, October 1 and 2. After that, you will need to attend another lab for drop-in help. If no other lab fits your schedule, contact Sharmi or Matt to schedule an appointment.

Please attend the first lab for orientation. Attendance is NOT required for lab sessions after the first.

Web page: All announcements and lab assignments are in *Canvas*. Login to your *Canvas* using your GoldID and password and enter AMS 7L Fall 2018. The login page for *Canvas* can be accessed using the following URL:

https://canvas.ucsc.edu/

Associated Lectures:
David Draper, TuTh 11:40 am – 1:15 pm, Jack Baskin Auditorium 101
Bruno Mendes, TuTh 7:10 – 8:45 pm, Thimann Lecture Hall 3

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 *Canvas*. The labs will be posted in the *Quizzes* section.

A single lab assignment will be posted (as multiple quizzes) and due once a week. Labs will be posted every Monday at 9:00 am and due the following Monday at 9:00 am with the exception of the last three labs. Lab 8 will be due on Dec. 3 at 9:00 am. Labs 9 and 10 will be due on the last Friday of the fall finals week, 12/14/2018 at 9:00 am.

Labs are self-paced and do NOT have a time limit; however, ALL labs MUST be submitted by the posted due dates. You do not have to complete lab assignments in one session. You can save quizzes in *Canvas* 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. Each section (quiz) of a lab may be submitted twice, with the highest score counting toward your grade. You are allowed and encouraged to work on labs alongside your peers, but every student is expected to do their own calculations and JMP analysis required by the lab. Submitting work not completed by you is a violation of academic integrity.

In the event a student is found in violation of the UCSC Academic Integrity policy, they may face both academic sanctions imposed by the instructor of record and disciplinary sanctions imposed either by the provost of his or her college or the Academic Tribunal convened to hear the case. Violations of the Academic Integrity policy can result in dismissal from the university and a permanent notation on a students transcript. For the full policy and disciplinary procedures on academic dishonesty, students and instructors should refer to the Academic Integrity page https://www.ue.ucsc.edu/academic_misconduct at the Division of Undergraduate Education.

Late Work: Late submissions will **NOT** be accepted. The class accommodates missing Lab assignments by designating Labs 5 and 10 as extra credit (see **Course Grade** section below). Therefore, instructors 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 instructors. In such cases, email both instructors at least 48 hours before the due date of the assignment.

Student Support: Students are encouraged to email instructors at any time throughout the course. Emails may be sent directly to an instructor or by using the *Messages* tool in *Canvas*. Lab instructors will also monitor the *Discussions* section and provide response when necessary. Note that last minute emails may not be answered immediately. 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.

Data files used in labs can be accessed in the quizzes themselves, but they are also available for download in the *Files* tab on *Canvas*.

Schedule and Content List:

Lab #	Due Date	Content
Lab 1	Oct. 8, 9 am	Practice with Data Types, Starting JMP.
Lab 2	Oct. 15, 9 am	Looking at data. Measures of central tendency, Measures of dispersion.
Lab 3	Oct. 22, 9 am	Relative Frequency, Probability (including Bayes Theorem), Binomial and Poisson distribution.
Lab 4	Oct. 29, 9 am	Means of Normals, Central Limit Theorem, Normal Approximation to Binomial
Lab 5	Nov. 5, 9 am	EXTRA CREDIT. Review lab.
Lab 6	Nov. 12, 9 am	Confidence Intervals for Means, Confidence Intervals for Proportions.
Lab 7	Nov. 19, 9 am	One Sample Hypothesis Tests for Means, Hypothesis Tests for Proportions. Two-sample Tests for Means.
Lab 8	Dec. 3, 9 am	Regression, Residuals and Transformations
Lab 9	Dec. 14, 9 am	Multiple Regression, Goodness-of-Fit Tests
Lab 10	Dec. 14, 9 am	EXTRA CREDIT. Polynomial Regression, Optimization.

Course Grade: Grades will be based on a point system. Each question within a required lab is worth one point. The total number of questions in the eight required labs is approximately 250, and the primary grade percentage will be calculated out of the total. Extra credit labs carry an additional 20% total, more than enough to replace an entire missed lab. The final score (the raw percentage plus extra credit) 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 A+ will not be given for students who finish higher than 100%. We will not round or bargain for scores that are borderline between different grade levels.