San Jose State University

STATISTICS 95 SYLLABUS SPRING SEMESTER 2011

Elementary Statistics

INSTRUCTOR AND CONTACT INFORMATION:

Professor Laree A. Huntsman, Ph.D.
email: laree.huntsman@sjsu.edu
Phone: 408-924-5633
Office: DMH 313
Office Hours: Monday and Wednesday 1:15-3:15

COURSE MEETING TIMES: M-W, Section 03, 10:30-11:45, WSQ 207

SPSS COMPUTER LAB: DMH 350

PREREQUISITES:

"By California State University policy, passage of the Entry Level Mathematics (ELM) is prerequisite to enrollment in this class. Failure to satisfy this prerequisite will result in retroactive assignment of a "U" grade in the course. Information on the ELM is printed in the Testing Section in the front of the Schedule of Classes."

Intermediate College Algebra is a prerequisite for this course.

COURSE DESCRIPTION:

This course is designed to provide an overview of elementary statistical procedures used by researchers in the behavioral and social sciences and to prepare students for more advanced statistical techniques presented in other courses.

The proficiency goals for this General Education (GE/SJSU Studies Category Area B4) course are: (a) the ability to solve mathematical problems, including those presented in verbal form, (b) the ability to arrive at descriptive and inferential conclusions on the basis of mathematical data presented through such forms as statistics, tables, graphs, and computer outputs, and (c) an understanding of the ways in which mathematics affects human activities. Measured assessments of these learning objectives will include completing computerized assignments and specific exam items.
TEXTBOOKS:


CALCULATOR:

Having the proper tool to do the job saves time and reduces stress. Any four function calculator that also gives you the square root of a number can get you through the course. However, having a calculator with statistical capabilities that will automatically compute the mean, standard deviation, correlation, slope, and intercept will save you time in checking your work. Since we spend an extensive amount of class time performing calculations, you are required to bring your calculator to every class.

EXAMS (300 points):

There will be 3 exams. Each exam has two parts. Part A is an open note/book/calculator/brain exam. Part B (closed notes/book etc.) consists of true/false, matching, and fill in the blank type questions. Part A and Part B will be administered over two consecutive testing sessions for Exams 1 and 2. Part A and Part B of Exam 3 will be administered during the university final examination scheduled time period. The exchange of any information during an exam is forbidden. Students may not share calculators nor may they use a cell phone or use a cell phone as a substitute for a calculator. Do not ever look at another student’s exam during a test. Additionally, you must not allow other students to look at your exam. Failure to adhere to these rules will result in a score of zero being recorded for any students who are in violation of this rule. According to the University's Academic Integrity Policy you are required to be honest in all of your coursework. Furthermore, faculty are required to report all infractions to the Office of Student Conduct and Ethical Development.

MISSED EXAM:

You must make every effort to take the exam on the scheduled day because THERE ARE NO MAKE-UP EXAMS given in this course. If you miss an exam or elect not to take an exam for any reason, then you will receive the score of zero for that exam.

PROBLEM SETS:

You will be given a homework assignment from your Huntsman Stat Workbook for every topic covered in class. Since problem sets are not collected or graded you must rely on your own motivation to complete them. Preparation for each class meeting is the secret of success in this course. It is important for you to practice each skill until you feel competent; and then move on to the next idea. Since exams are based primarily on similar problem sets, completing each assignment is essential if you want to do well in the course. The problem sets will be reviewed in class.
MISSED LECTURE:

Although attendance is not taken, perfect attendance is critical for success in this class, therefore you should never be absent and you should never be late. However, if you are absent, refer to your classmates for lecture notes. Please also be aware that I do NOT put any lecture material on the web, nor do I email them to students, nor do I give private lectures or allow students to copy my notes after class or during office hours. The only sure way for you to get lecture notes is to attend the lectures and take your own notes.

SPSS COMPUTER ASSIGNMENTS (100 points):

For simplicity, most of our classroom analyses will be performed by hand on small amounts of data. In actual practice most analyses are based on large amounts of data and it is more efficient to use a computer. The statistical program we will be using is called SPSS. You will be required to complete four SPSS assignments (4 at 25 points each = 100 points). Late assignments will have points deducted (3 points per day). Since SPSS assignments will be graded on a credit/no credit basis, students receiving "no credit" will be given the opportunity to resubmit their SPSS assignments. Instances of academic dishonesty will not be tolerated. Copied or plagiarized assignments will result in a score of zero. All SPSS assignments are to be completed by the individual student.

HOW TO EVALUATE YOUR PERFORMANCE ON AN EXAM OR SPSS ASSIGNMENTS:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>93 - 100</td>
<td>C</td>
<td>74 - 76</td>
</tr>
<tr>
<td>A-</td>
<td>90 - 92</td>
<td>C-</td>
<td>70 - 73</td>
</tr>
<tr>
<td>B+</td>
<td>87 - 89</td>
<td>D+</td>
<td>67 - 69</td>
</tr>
<tr>
<td>B</td>
<td>84 - 86</td>
<td>D</td>
<td>64 - 66</td>
</tr>
<tr>
<td>B-</td>
<td>80 - 83</td>
<td>D-</td>
<td>60 - 63</td>
</tr>
<tr>
<td>C+</td>
<td>77 - 79</td>
<td>F</td>
<td>0 - 59</td>
</tr>
</tbody>
</table>

COURSE GRADE: Course grade = three exams (100 points each) and four SPSS computer assignments (25 points each = 100).

HOW WILL YOUR COURSE GRADE BE DETERMINED?

Your final grade is determined by the total of all the points you have received. Grades are NOT curved. For example, if you get a score of 88% (B+), you earn 88 points for that exam. Because grades are never curved, it is easy to keep track of how well you are doing in the course. A form for this purpose is provided below. There is NO extra credit in this course.
PERSONAL GRADE RECORD:

Be sure to keep a written record of your progress in this course.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Range</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>372 - 400</td>
<td>(93+ %)</td>
</tr>
<tr>
<td>A-</td>
<td>360 - 371</td>
<td>(90+ %)</td>
</tr>
<tr>
<td>B+</td>
<td>348 - 359</td>
<td>(87+ %)</td>
</tr>
<tr>
<td>B</td>
<td>336 - 347</td>
<td>(84+ %)</td>
</tr>
<tr>
<td>B-</td>
<td>320 - 335</td>
<td>(80+ %)</td>
</tr>
<tr>
<td>C+</td>
<td>308 - 319</td>
<td>(77+ %)</td>
</tr>
<tr>
<td>C</td>
<td>296 - 307</td>
<td>(74+ %)</td>
</tr>
<tr>
<td>C-</td>
<td>280 - 295</td>
<td>(70+ %)</td>
</tr>
<tr>
<td>D+</td>
<td>268 - 279</td>
<td>(67+ %)</td>
</tr>
<tr>
<td>D</td>
<td>256 - 267</td>
<td>(64+ %)</td>
</tr>
<tr>
<td>D-</td>
<td>240 - 255</td>
<td>(60+ %)</td>
</tr>
<tr>
<td>F -</td>
<td>239</td>
<td>(-60%)</td>
</tr>
</tbody>
</table>

EXAM 1 _______   (100)
EXAM 2 _______   (100)
EXAM 3 _______   (100)
SPSS _______   (100)

COURSE TOTAL _______   (400)

In order to be fair to the entire class, I do not assign extra credit to raise grades. In addition, I follow University policy on the assignment of Incompletes (i.e., at least 75% of the course work must have been completed and there must be a compelling reason). Students are responsible for understanding the policies, procedures, current deadlines, and penalties about add/drop, late drop, late add, academic renewal, etc. Refer to the current semester’s catalog policies section for specific registration information. This semester, the last day to drop or withdraw without a "W" grade is Monday, February 7, 2011.

If you need course adaptations, accommodations, or special arrangements because of a disability, please let me know as soon as possible. Presidential Directive 97-03 requires that students with disabilities requesting accommodations must register with the Disability Resource Center (http://www.drc.sjsu.edu). Additionally, if you have emergency medical information to share with me, or if you need special arrangements in case the building must be evacuated, please let me know as soon as possible.
SCHEDULE

WEEK 1  Course orientation
1/26

WEEK 2  Introduction to statistics
Types of data
Tables
Graphs
Averages
1/31, 2/2

WEEK 3  Variability
Distributions
Standard Scores
2/7, 2/9

WEEK 4  Correlation
Prediction
2/14, 2/16

WEEK 5  Correlation
Prediction
*** EXAM 1 PART A *** Wednesday, 2/23
2/21, 2/23

WEEK 6  *** EXAM 1 PART B *** Monday, 2/28
SPSS packet distributed, 2/28
Populations, samples,
Sampling distributions
Hypothesis testing
2/28, 3/2

WEEK 7  Statistical significance
Directionality
Type I and II errors
Power
$ t $-test for one sample
EXAM 1 SCORES RETURNED, Monday, 3/7
3/7, 3/9

WEEK 8  $ t $-test for correlation
3/14, 3/16

WEEK 9  One Way Chi Square
SPSS Lab Day 3/23
3/21, 3/23

WEEK 10 *** SPRING BREAK ***
3/28, 3/30

WEEK 11 SPSS Lab Day 4/4
Two Way Chi Square
Probabilities
4/4, 4/6

WEEK 12 Chi Square
Probabilities
*** EXAM 2 PART A *** Wednesday, 4/13
4/11, 4/13

WEEK 13 *** EXAM 2 PART B *** Monday, 4/18
Independent t-test
4/18, 4/20

WEEK 14 EXAM 2 SCORES RETURNED, Monday, 4/25
Dependent t-test
Confidence intervals
4/25, 4/27

WEEK 15 Analysis of Variance
*** SPSS 1-4 DUE *** Wednesday, 5/4
5/2, 5/4

WEEK 16 Two Factor ANOVA
SPSS 1-4 Returned Wednesday, 5/11
5/9, 5/11

WEEK 17 Two Factor ANOVA
5/16

WEEK 18 *** FINAL EXAM 3 *** Wednesday, 5/25, 9:45 - 12:00
*** SPSS REDO DUE *** Wednesday, 5/25, 9:45 a.m
EXAM SCHEDULE:

*** EXAM 1 PART A *** Wednesday, 2/23 (50 points)
*** EXAM 1 PART B *** Monday, 2/28 (50 points)
*** EXAM 2 PART A *** Wednesday, 4/13 (50 points)
*** EXAM 2 PART B *** Monday, 4/18 (50 points)
*** EXAM 3 PARTS A & B *** Wednesday, 5/25, 9:45-12:00 (100 points)

COMPUTER ASSIGNMENTS:

*** SPSS 1 - 4 DUE *** Wednesday, 5/4 (100 points)
*** SPSS 1 - 4 REDO DUE *** Wednesday, 5/25 (100 points)

EXAM AND SPSS RETURN SCHEDULE

*** EXAM 1 SCORES RETURNED *** Monday, 3/7
*** EXAM 2 SCORES RETURNED *** Monday, 4/25
*** SPSS SCORES RETURNED *** Wednesday, 5/11

QUESTIONS NOT TO ASK:

"When do we get our exam/SPSS scores?" (Return dates listed above)
"I wasn't in class today, did I miss anything important?" (Yes)
"May I have a copy of your notes and overheads?" (No)
"I was late to class today so I probably missed this but..." (Too bad)

CLASSROOM EXPECTATIONS:

Come to class with a positive attitude.
Be respectful to your instructor and to your peers.
Come to class everyday.
Be punctual - late students are to enter the room discreetly and sit in the back.
Do not leave early (if you absolutely must leave early sit near the door and leave discreetly).
Unless you have an emergency there are no in and out privileges.
Be prepared and have necessary materials with you.
Do assigned homework and readings on time.
Do not interrupt.
Raise your hand if you wish to ask a question or make a comment.
Do not talk/joke with your peers during lecture.
Cover your mouth when you yawn, burp, or cough.
Do not read the newspaper during lecture.
Refrain from obviously looking at the clock or your watch.
Refrain from eating, drinking (water is fine) or chewing gum.
Refrain from wearing perfume, colognes, and/or scented deodorants.
Turn off pagers, cellular phones, and watch alarms.
Do not send or receive text messages or phone calls during class.
Do not sleep during class.