Statistics 300   –   Introduction to Probability and Statistics (Course Code – 99909)
Time   –   Spring 2010: Sat. 9:00 a.m. to 1:05 p.m. [1/16/2010 to 5//2010]
Room   –   LRC 104
Instructor   –   Lawrence C. Larsen
Phone   –   (916) 346-6324
Office   –   <no office on campus>
Office Hours   –   After each class from 1:05 to 1:30 p.m.
e-mail: –   lclarsen@comcast.net (or larsenl@crc.losrios.edu)
Class Web Site   –   http://wserver.crc.losrios.edu/~larsenl/ (All letters, no numbers)

PREREQUISITES

Intermediate algebra (Math 120 or Math 125) with a "C" or better. An automated system checks prerequisites taken in the Los Rios District since 2003. Show older Los Rios grade reports to the instructor, but take transcripts from outside the Los Rios Community College District to the Counseling Center (2nd floor of the Library building), and have a counselor certify that the course you took satisfies the prerequisite for this class. Please give the instructor a Los Rios transcript, an assessment test record, or approval from the counseling office by the close of class on 1-30-2010. Instructor can accept math above algebra (trigonometry, pre-calculus, etc.) if the course was taken at a college. High School AP is only OK if taken at a college.

TEXTBOOK

Essentials of Statistics, 3rd Edition, loose-leaf, by Mario F. Triola. (Required.: Package includes "MyMathLab") You will need a 3-ring binder for this textbook.

You will also need a simple scientific calculator that handles two variables (x and y) at the same time. The Texas Instruments Model TI-30X IIS or TI-30X IIB is *"required"*. This calculator is widely available for less than $20.00 (tax included).

COURSE OBJECTIVES

1.   Develop skills in understanding and applying basic statistical methods.
2.   Develop an appreciation for the use of statistics in decision making, and an appreciation of its limitations.
3.   Develop an ability to use computers and/or calculators for statistical analysis of data.

COURSE DESCRIPTION

The course covers basic concepts, descriptive statistics, probability, random variables, probability distributions, parameter estimation, hypothesis testing, linear correlation, linear regression, contingency tables, and analysis of variance. Applications are made to business, social sciences, and natural/physical sciences.

GRADING POLICY

Every student has the opportunity to <u>earn</u> an "A" in the class. Students are in competition with the material, not with each other (i.e., not graded on a "curve"). Grades are based on three exams and about 20 quizzes as follows:

Quizzes   – 25 %   (One quiz will be dropped in each of three Units)
Unit1 Exam   – 25 %   (on Thursday, February 26)
Unit2 Exam   – 25 %   (on Thursday, April 2)
Unit3 Exam   – 25 %   (on Tuesday, May 19)
[no exams will be dropped]

Exams and quizzes are "open notes and open book." Do not plan to look everything up during an exam or quiz. The exams are challenging, and many problems will not "look like" others that you have practiced, though they will involve the same principles. "Open notes and open book" simply means that you will need to be very well organized. If you need to find something in the book or in your notes, you should be able to locate it in about 10 seconds (or even less).

Exercises from the book are assigned for practice in preparation for quizzes and exams. Solutions to these exercises should be collected in a spiral bound binder or in 'blue books." Your work on these exercises will not be handed in or graded, but it is considered part of your notes, so you can refer to them during exams.

Letter grades will be determined by the following schedule:

        A -- 90 to 100 %
        B -- 80 to   89 %
        C -- 70 to   79 %
        D -- 60 to   69 %
        F -- < 60 %

POLICIES
1. Missed exams are very difficult to make up. Check the schedule and plan for all exams. Talk to the instructor well ahead of time if the schedule for an exam is a problem for you.
2. If you decide to drop the class, it is your responsibility to follow the prescribed procedures. If you just stop attending, you may end up with an "F" on your transcript.
3. Cell phones must be powered "off" in the classroom (they cause annoying "clicks", etc., on the cable feed to home viewers. Other noise-makers (pagers, laptops, etc.) must be quiet.
4. Honesty (doing your own work as assigned) is required. Students may collaborate on all practice problems and "take home" quizzes, but you should try them before accepting any help from others. The instructor will follow campus policies on academic integrity. Please take this seriously, get the benefit of doing all your own work, and expect to be caught and reported if you "cheat". To reduce temptations to cheat, exams may be copied before they are returned, and multiple versions of exams may be prepared so the answers your neighbor gets may not be the correct answers for you.

RESOURCES

- ς Math Center (Enroll in ¼ unit for $5 to get full access for whole semester)
- ς informal tutoring
- ς computers special programs for statistical analysis
- ς good place to get together and work with others in the class
- • MESA (Math/Engineering/Science Achievement) Center
- • Instructor
- ς Phone or e-mail (call instructor to alert him if you send an e-mail)
- ς Phone or e-mail early so we have time to handle your questions in a timely way
- ς Desire2Learn (D2L) is a gateway to class resources on the web

Important Dates from the CRC website.

Spring Term	Start-End Dates of Terms	Last Day to Drop Class to Qualify for a Refund for Enrollment and Tuition Fee	Last Day to Drop Class Without Notation on Record	Last Day to Drop Class with a "W" Grade	Last Day to Petition for Pass/No Pass
Full Semester	Jan 16 - May 19 (Last day to enroll, Jan 31)	Jan 29	Feb 14	Apr 18	Feb 11

CONTACT NUMBERS

CRC Science/Math/Engineering Department (916-691-7204)

CRC Math Center (916-691-7459)

CRC Bookstore (916-691-7319)

CRC Admissions & Records (916-691-7411)

		Tentative Schedule Unit #1
Date	**Chapter/Sections**	**Sections in Textbook and Homework Exercises***
1/16	1-1, 1-2, 1-3, 1-4	**1-1**(study the vocabulary on pages 4 and 5); **1-2**(odd problems 1-27); **1-3**(odd problems 1-27);
1/23	1-4, 2-1, 2-2, 2-3, 2-4	**1-4**(odd problems 1-29); **2-2**(terms,5,7,9,11,13,15,21); **2-3**(read only); **2-4**(read only)
1/30	3-2, 3-3, 3-4, 3-5	**3-2**(1-5,7,9,15,17,25); **3-3**(1-5,9,19,31,33,35); **3-4**(1-5,7,9,11,13,15,17,19,20,22,24,27); **3-5**(5)
2/6	4-2, 4-3, 4-4, 4-5, 4-6	**4-2**(7,9,11,13,15,17,21,27, [if you want try this one] 36); **4-3**(7,9,13,15, 17,21,23,27); **4-4**(7,11,13,15,17,19, [next 2 are optional] 21,23); **4-5**(5,7,11,13,15,17,19,27)
2/13	5-2, 5-3, 5-4	**5-2**(5,7,9,17,19,21); **5-3**(odd problems 5-31,34); **5-4**(5,9,11,13,15,17,19)
2/20	**Unit#1 Exam**	Review from 9 to 11 AM. Exam from 11 AM to 1:05 PM Complete as many problems as you can in the Example Exam Questions for Unit1 (distributed to students and also available on WEB site) before this review session.

* Homework exercises are only for your practice and will not be turned in to the instructor. Solutions to selected homework problems will be shown during class time, especially when students ask for solutions to particular problems.

Tentative Schedule Unit #2		
Date	**Chapter/Sections**	**Sections in Textbook and Homework Exercises***
2/27	6-2, 6-3, 6-4, 6-5	**6-2**(1,4,odd problems 5-39, 43); **6-3**(1,2,4,5,7,9,11,13,15,17,23);
3/6	6-3, 6-4, 6-5, 7-2	**6-4** (read only); **6-5**(1,4,5,7,11,13,15); 7-2(3,4,9,11,21,23,25,27,29,33,35,41,43,45)
3/13	7-3, 7-4, 7-5	7-3(33,35,37); 7-4(3,13,17,19,21,25); 7-5(1,2,5,7,9,11,17,19,21)
3/20	8-2, 8-3, 8-4, 8-5, 8-6	8-2(odd problems 3-39, bonus 47); 8-3(1,2,3,5,8,9,11,19,23); 8-4(no problems); 8-5(1,2,5,7,13,15,17,19,21,27); 8-6(1,5,7,9,11,13)
3/27	**Unit#2 Exam**	Review from 9 to 11 AM. Exam from 11 AM to 1:05 PM Complete as many problems as you can in the Example Exam Questions for Unit1 (distributed to students and also available on WEB site) before this review session.

* Homework exercises are only for your practice and will not be turned in to the instructor. Solutions to selected homework problems will be shown during class time, especially when students ask for solutions to particular problems.

Tentative Schedule Unit #3		
Date	**Chapter/Sections**	**Sections in Textbook and Homework Exercises***
4/3	No Class – Easter / Spring Break	
4/10	9-4, 9-2	**9-4**(5,7,11); **9-2**(1,2,3,4,5,7,13,15,17,23); **9-3**(5,6,7,8,9($\sigma_1=\sigma_2$),13($\sigma_1=\sigma_2$),17($\sigma_1=\sigma_2$),21($\sigma_1<>\sigma_2$),23($\sigma_1<>\sigma_2$));
4/17	9-3, 10-2, 10-3, 10-4	**9-3**(5,6,7,8,9($\sigma_1=\sigma_2$),13($\sigma_1=\sigma_2$),17($\sigma_1=\sigma_2$),21($\sigma_1<>\sigma_2$),23($\sigma_1<>\sigma_2$)); **10-2**(5,9,10,11,13,15)
4/24	10-3, 10-4 11-2, 11-3	**10-3**(5,9,10,13,15,36); **10-4**(5,7,13,15,17,19)
5/1	11-2, 11-3, 11-4	11-2(1,2,3,5,9,12,21); 11-3(1-4,13,17,21); 11-4(1-4,5,9,11)
5/8	10-5 and Bootstrap and additional topics.	10-5(9,13) In-class bootstrap exercise. Discussion on (2%) extra credit opportunity. Practice
5/15	**Unit#3 Exam**	Review from 9 to 11 AM. Exam from 11 AM to 1:05 PM Complete as many problems as you can in the Example Exam Questions for Unit1 (distributed to students and also available on WEB site) before this review session.
* Homework exercises are only for your practice and will not be turned in to the instructor. Solutions to selected homework problems will be shown during class time, especially when students ask for solutions to particular problems.		

Date	Event
January 16	Instruction Begins
January 18	Holiday - Martin Luther King, Jr. birthday (no classes, offices closed)
February 12	Holiday - Lincoln's birthday (no classes, offices closed)
February 15	Holiday - Washington's birthday (no classes, offices closed)
March 29 - April 4	Spring Recess
April 18	Last Day to Drop Full Semester classes *
May 13-19	Final Exams - Final Exam Schedules
May 19	End of Full Semester