SUFFOLK COMMUNITY COLLEGE
MATHEMATICS DEPARTMENT
STUDENT COURSE OUTLINE/SYLLABUS
MA23 - Summer 2008

INSTRUCTOR: Dr. James Fulton
OFFICE: R345
COURSE: MA23 - Statistics I
OFFICE HOURS: By Appointment
SECTION: 1512
M- Th 10:20AM-12:20PM
CLASSROOM: R202
PREREQUISITE: MA06 or MA07 or equivalent
TELEPHONE: 451-4784 (Prof. Fulton)
451-4270 (Secretary)
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Copies of the departmental syllabus for this course are available in the Math Office (R352).

COURSE PHILOSOPHY:
Students considering careers in business, education, health science, industry, science, or social science will find this an interesting and useful course. Statistical concepts will be illustrated by examples drawn from the above fields.

MA23 is a course in the fundamentals of statistical methods and reasoning as applied to a variety of real-world problems at a level suited to students with a limited mathematics background. The theory of probability is used to develop the methods of statistical inference, confidence intervals, and decision theory.

MA23 is a course that introduces students to the field of applied mathematics and can be followed by MA24 (Statistics II). MA23 coupled with MA36 (Finite Mathematics) and/or MA64 (Calculus for Non-Science Majors) would form a strong applied mathematics sequence for students in the above mentioned fields. Alternatively, a liberal arts student could take MA21 and MA23 for a well-rounded math sequence.

It is required that all students use hand calculators (equipped with the square-root function and memory keys) in class and at home.

COURSE OBJECTIVES:
Upon successful completion of this course, students should be able to
1. demonstrate an understanding of basic statistical terms;
2. organize and describe data, mathematically and pictorially;
3. understand and compute measures of central tendency and variability;
4. apply basic probability principles;
5. write and do basic analysis using binomial, normal, t, and chi square distributions;
6. understand and apply the central limit theorem;
7. understand, conduct and interpret hypothesis tests;
8. understand, construct and interpret confidence intervals.

STUDENT REQUIREMENTS:
The student is required to:
1. Attend class.
2. Read assigned chapters in the textbook.
3. Complete homework assignments before the next scheduled class.
4. Take all the examinations at scheduled times.
COLLEGE-WIDE ATTENDANCE POLICY: 
All students are expected to attend every session of each course for which they are registered. Students are responsible for all that transpires in class whether or not they are in attendance. The College defines excessive absence or lateness as more than the equivalent of one week of class meetings during the semester. Excessive absence or lateness may lead to failure in a course or removal from the class roster.

GRADING POLICY:
1. There will be four (4) exams. The lowest, of the first three (3) exam grades will be dropped. The last exam will not be dropped. There are NO makeup exams.
2. There will be a project that will take place throughout the course
3. Your course average will be determined as follows:

   Exams.................75%
   Project.............25%

TEXTBOOK: 
BEGINNING STATISTICS, 2nd Edition  
By: Larry J. Stephens  
Schaum’s Outlines  
McGraw Hill

TOPIC OUTLINE:
Descriptive Statistics: Chapters 1, 2, and 3  
Probability: Chapters 4, and 5  
Probability Distributions & Sampling: Chapters 6, and 7  
Inferential Statistics: Chapters 8, and 9  

Test 1, Monday June 9th  
Test 2, Tuesday June 17th  
Test 3, Tuesday June 24th  
Test 4, Wednesday July 2nd

USEFUL WEB LINKS:
http://www.learner.org/resources/series65.html
http://www.davidmlane.com/hyperstat/
http://it.stlawu.edu/~rlock/10sites.html
http://www.mste.uiuc.edu/hill/dstat/dstat.html

MATHEMATICS LEARNING CENTER:
Free tutoring and use of computer software is available in the Math Learning Center (R235). Hours are posted on the door. You must sign in each time you use the MLC. The College and the Mathematics Department support the MLC.