

BERGEN COMMUNITY COLLEGE
DIVISION OF MATHEMATICS, SCIENCE AND TECHNOLOGY
DEPARTMENT OF MATHEMATICS

COURSE SYLLABUS

MAT-250 STATISTICS II

COURSE DESCRIPTION:	This course is an introduction to methods for the design of research studies and the interpretation of data that result from these studies. Topics considered include a brief review of elementary statistical concepts, additional cases of hypothesis testing and estimation, analysis of variance, analysis of enumerative data, linear regression and correlation, and nonparametric statistics. Laboratory assignments using a statistical software package are include in the course
CREDITS/HOURS:	3 credits 4 hours
PREREQUISITE:	MAT-150 with a grade of C or better or by permission of the Department Chair
GENERAL EDUCATION COURSE:	Yes
STUDENT LEARNING OBJECTIVES:	<p>Upon successful completion of this course, the student will be able to:</p> <ol style="list-style-type: none">1. Analyze sample data in order to construct a confidence interval for one and two populations and make inferences based on the results.2. Conduct a test of hypothesis by gathering data and information from various sources. Organize and synthesize information to draw conclusions about the validity of a claim about one and two populations.3. Collect data from various information sources, and effectively evaluate and organize data to create graphical displays. Use these graphical displays of data to analyze data and develop the simple linear regression model to make predictions from this data.4. Demonstrate comprehension of the fundamentals of experimental design and develop the analysis of data collected from a completely randomized design using ANOVA.
ASSESSMENT MEASURES:	Each of the above listed student learning objectives will be assessed by, <ol style="list-style-type: none">1. Written assignments and/or quizzes.2. Written examinations3. Other, as announced by the instructor
COURSE GRADE:	Students should refer to the instructor's grading policy which will be distributed during the first meeting of the class.
TEXTBOOK:	<u>Statistics II</u> , Allan Bluman, 9 th Edition, McGraw Hill Publisher Customized for Bergen Community College

COURSE CONTENT:

<u>TOPIC</u>	<u>CHAPTER</u>
Review of Estimation and Hypothesis Testing	7, 8
Inferences for Two Populations	9
Linear Correlation and Regression	10
Goodness of Fit and Contingency Tables	11
Analysis of Variance	12
Nonparametric Statistics	13 (optional)

REFERENCES: Fanur, Mosteller, et al. Statistics: A Guide to the Unknown.
Larson and Farber, Elementary Statistics, Pearson/Prentice-Hall.
Richmond, Statistical Inference, Ronald Press.
Spiegel, Statistics, Schaum Publishing Co.
Weinberg and Schumaker, Statistics: An Intuitive Approach, Brooks/Cole.

ELECTRONIC DEVICES: **The Department of Mathematics prohibits the use of cell-phones, PDA's, laptops, headphones, IPODs and other such devices in mathematics classes unless otherwise specified in the grading policy provided by the instructor at the beginning of the semester.**

FACULTY ABSENCE PROCEDURE: CLASS CANCELLATIONS may be found at <http://www.bergen.edu/classcancellations>
A list is also posted in a glass case near A-129, the main corridor on the first floor and in Ender Hall. If a cancelled class is not listed, it should be reported to the Department Office (A-327) or the Adjunct Office (C-107).

WEBSITE: Go to <http://www.bergen.edu/academics/academic-divisions-departments/mathematics> for more information regarding the Mathematics Department.

STUDENT	Learning Assistance Center	Room: L-125	879-7489
SUPPORT	Math and Science Walk-In	Room: L-131	879-7489
SERVICES:	Office of Specialized Services	Room: L-115	612-5269