

COURSE SYLLABUS

Course Title:	Statistics II with Technology Application		Date submitted:	March 2015 (AAC: 15-30)
Department:	Mathematics & Science			
Curriculum:	Mathematics			
Course Descriptors: Make certain that the course descriptors are consistent with college and Board of Trustees policies, and the current course numbering system.	Course Code: (eg. ACC 101)	MAT*222	Prerequisites:	
	Course Type:	L	C- or better in Elementary Statistics with Computer Applications (MAT*165)	
	A: Clinical B: Lab D: Distance Learning I: Individual/Independent L: Lecture N: M: Seminar Internship P: Practicum U: Studio X: Combined Lecture/Lab Y: Combined Lecture/Clinical/Lab Z: Combined Lecture/Studio			
	Elective Type:	G/LAS/M		
	AH: Art History E: English FA: Fine Arts FL: Foreign Language G: General HI: History HU: Humanities LAS: Liberal Arts & Sciences M: Math S: Science SS: Social Science			
	Credit Hours:	3	Corequisites:	
	Developmental: (yes/no)	No	None	
	Lecture:	3		
	Clinical:	0		
	Lab:	0		
Studio:	0			
Contact Hours:	Other: 0			
	TOTAL:	3	Other Requirements:	
	Class Maximum:	35	None	
	Semesters Offered:	F/S/Su		
Catalog Course Description:	Designed for those students who desire a more in-depth study of Statistics, especially those wishing to transfer to a 4-year institution. Topics include hypothesis testing, statistical inference about means and proportions with two populations, linear regression and correlation, multiple regression, analysis of variance, inferences about population variances, goodness of fit and independence, and nonparametric methods.			
Topical Outline: List course content in outline format.	1. Statistical Inference <ul style="list-style-type: none"> a. Hypothesis testing (one and two populations) about means and proportions b. Population variances c. Experimental design and analysis of variance 2. Regression and correlation <ul style="list-style-type: none"> a. Simple linear regression b. Correlation analysis c. Multiple regression 3. Goodness of fit and independence			

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	4. Nonparametric methods
<p>Outcomes: Describe measurable skills or knowledge that students should be able to demonstrate as evidence that they have mastered the course content.</p>	<p>Upon successful completion of this course, the student will be able to do the following:</p> <p>COURSE:</p> <ol style="list-style-type: none"> 1. use appropriate methodology to test hypotheses about the means and proportions of one and two populations 2. produce accurate ANOVA tables and interpret and apply the information 3. use the F-test and the chi-square test to analyze population variances, goodness-of-fit and independence 4. produce linear and multiple regression formulas and correlations; interpret and apply the information 5. utilize various nonparametric methods to draw conclusions about data 6. use technology to analyze data and support statistical conclusions <p>PROGRAM: <i>(Numbering reflects Program Outcomes as they appear in the college catalog)</i></p> <p>GENERAL EDUCATION: <i>(Numbering reflects General Education Outcomes as they appear in the college catalog)</i></p> <p>7. Quantitative Reasoning -Students will learn to recognize, understand, and use the quantitative elements they encounter in various aspects of their lives. Students will develop a habit of mind that uses quantitative skills to solve problems and make informed decisions.</p> <p>Demonstrates: Interprets numerical information and applies sufficient laws of logic and mathematics to solve problems using numbers, symbols, graphs and/or descriptions.</p> <p>Does Not Demonstrate: Misinterprets numerical information or insufficiently applies laws of logic and mathematics to solve problems using numbers, symbols, graphs and/or descriptions.</p>
<p>Evaluation: List how the above outcomes will be assessed.</p>	<p>Assessment will be based on the following criteria:</p> <ol style="list-style-type: none"> 1. teacher-made quizzes, tests and exams 2. computer projects 3. group and in-class work, where assigned
<p>Instructional Resources: List library (e.g. books, journals, on-line resources), technological (e.g. Smartboard, software), and other resources (e.g. equipment, supplies, facilities) required and desired to teach this course.</p>	<p>Required: Computer classroom with sufficient seating, board space and appropriate software Desired: None</p>
<p>Textbook(s)</p>	<p>Refer to current academic year printout.</p>