MATH 215 Course Outline as of Summer 2019

CATALOG INFORMATION

Dept and Nbr: MATH 215 Title: STAT CONCURRENT SUPPORT
Full Title: Elementary Statistics Concurrent Support
Last Reviewed: 9/9/2024

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	2.00	Lecture Scheduled	2.00	17.5	Lecture Scheduled	35.00
Minimum	2.00	Lab Scheduled	0	8	Lab Scheduled	0
		Contact DHR	0		Contact DHR	0
		Contact Total	2.00		Contact Total	35.00
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 70.00 Total Student Learning Hours: 105.00

Title 5 Category:	AA Degree Applicable
Grading:	P/NP Only
Repeatability:	00 - Two Repeats if Grade was D, F, NC, or NP
Also Listed As:	
Formerly:	

Catalog Description:
A review of the core prerequisite skills, competencies, and concepts needed in statistics. Intended for students who are concurrently enrolled in (MATH 15) Elementary Statistics. Topics include concepts from arithmetic, pre-algebra, elementary and intermediate algebra, and descriptive statistics that are needed to understand the basics of college-level statistics. Additional emphasis is placed on solving and graphing linear equations and modeling with linear functions.

Prerequisites/Corequisites:
Concurrent Enrollment in STAT C1000 (or MATH 15)

Recommended Preparation:

Limits on Enrollment:

Schedule of Classes Information:
Description: A review of the core prerequisite skills, competencies, and concepts needed in statistics. Intended for students who are concurrently enrolled in (MATH 15) Elementary Statistics. Topics include concepts from arithmetic, pre-algebra, elementary and intermediate

algebra, and descriptive statistics that are needed to understand the basics of college-level statistics. Additional emphasis is placed on solving and graphing linear equations and modeling with linear functions. (P/NP Only)
Prerequisites/Corequisites: Concurrent Enrollment in STAT C1000 (or MATH 15)
Recommended:
Limits on Enrollment:
Transfer Credit:
Repeatability: Two Repeats if Grade was D, F, NC, or NP

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree:	**Area**	Effective:	Inactive:
CSU GE:	**Transfer Area**	Effective:	Inactive:
IGETC:	**Transfer Area**	Effective:	Inactive:

CSU Transfer:	Effective:	Inactive:
UC Transfer:	Effective:	Inactive:

CID:

Certificate/Major Applicable:
Not Certificate/Major Applicable

COURSE CONTENT

Student Learning Outcomes:
At the conclusion of this course, the student should be able to:
1. Apply arithmetic, pre-algebra, and algebra skills necessary for success in Elementary Statistics.
2. Apply knowledge of algebra and descriptive statistics to inferential statistics.

Objectives:
At the conclusion of this course, the student should be able to:
1. Apply statistics-related pre-algebra skills necessary for success in Elementary Statistics.
2. Apply statistics-related algebra skills necessary for success in Elementary Statistics.
3. Apply descriptive statistics to communicate findings in the context of the data.
4. Apply knowledge of linear functions to construct, use, and interpret mathematical models to represent and communicate relationships in quantitative data.
5. Apply proportional reasoning, percents, and fractions to probability problems found in an Elementary Statistics course.
6. Recognize the distinction between sample statistics and population parameters and interpret the results of statistical inference contextually.
7. Use technology to solve problems found in an Elementary Statistics course, such as calculating probabilities, data exploration, regression, and statistical inference.
8. Apply effective learning strategies for success in college.

Topics and Scope:

I. Topics from Pre-Algebra: Review of Pre-Algebra Topics, as Needed, in the Context of

Statistics That May Include:
A. Arithmetic of signed numbers
B. Conversion of verbal descriptions of inequalities to interval form, graphical and algebraic form
C. Operations with fractions, as needed, proportions, ratios and percent
D. Exponents, square roots, scientific notation
E. Simplification of algebraic expressions; order of operations
F. Graphing fractions, decimals, and signed numbers on a number line
G. Graphing ordered pairs in the Cartesian coordinate system

II. Topics from Beginning and Intermediate Algebra: Review of Algebra Topics, as Needed, in the Context of Statistics That May Include:
A. Evaluation of expressions and formulas
B. Mathematical models
C. Linear functions, constant rate of change, graphing, interpreting slope and y-intercept in context
D. Scatterplots and regression lines
E. Area under the graph of a function

III. Topics from Elementary Statistics: Concurrent Support for Statistical Topics That May Include:
A. Summarizing and communicating essential features of data sets
B. Interpreting results of statistical inference in context
C. Calculating probabilities and using the rules of probability in applied situations

IV. Technology (Calculator or Computer Software)
A. Evaluate Formulas
B. Calculate probabilities
C. Analyze data
D. Perform statistical inference

V. Topics Related To Developing Effective Learning Skills
A. Study skills: organization and time management, test preparation and test-taking skills
B. Self-assessment: using performance criteria to judge and improve one's own work, analyzing and correcting errors on one's test
C. Use of resources: strategies identifying, utilizing, and evaluating the effectiveness of resources in improving one's own learning, e.g., peer study groups, computer resources, lab resources, tutoring resources

Assignment:

1. Reading outside of class (0-60 pages per week)
2. Problem sets (5-16 per week)
3. Quizzes (0-4 per week)
4. Projects (0-5)
5. Exams (0-5)
6. Final exam

Methods of Evaluation/Basis of Grade:

Writing: Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

None, This is a degree applicable course but assessment tools based on writing are not included because problem solving assessments are more appropriate for this course.	Writing 0 - 0%

Problem Solving: Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Problem sets	Problem solving 5 - 80%

Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

None	Skill Demonstrations 0 - 0%

Exams: All forms of formal testing, other than skill performance exams.

Exams and quizzes	Exams 20 - 50%

Other: Includes any assessment tools that do not logically fit into the above categories.

Projects	Other Category 0 - 50%

Representative Textbooks and Materials:
Elementary Statistics. 13th ed. Triola, Mario. Pearson. 2018
Mathematics in Action: An Introduction to Algebraic, Graphical, and Numerical Problem Solving. 5th ed. The Consortium for Foundation Mathematics. Pearson. 2016
Intermediate Algebra: Functions & Authentic Applications. 5th ed. Pearson. 2015
Instructor prepared materials