



# COURSE OUTLINE OF RECORD

**Number:** MATH A096

**TITLE:** Support for Introduction to Statistics

**ORIGINATOR:** Timothy Cooley

**EFF TERM:** Fall 2019

**FORMERLY KNOWN AS:**

**DATE OF**

**OUTLINE/REVIEW:** 11-28-2018

**CROSS LISTED COURSE:** MATH A160

**TOP NO:** 1702.00

**CID:**

**SEMESTER UNITS:** 2.0

**HRS LEC:** 36.0

**HRS LAB:** 0.0

**HRS OTHER:** 0.0

**CONTACT HRS TOTAL:** 36.0

**STUDY/NON-CONTACT HRS RECOMMENDED:** 72.0

## CATALOG DESCRIPTION:

A concurrent support course for Math A160, Introduction to Statistics, designed to review prerequisite skills necessary for success. Topics include operations with real numbers; percents, ratios and proportions; selected algebraic topics essential to statistics; the graph of a line; and problem-solving strategies.

## JUSTIFICATION FOR COURSE:

AB 705, the guidelines from the Chancellor's Office, and the Academic Senate strongly recommend the creation of a concurrent support course for students enrolling into transfer level mathematics who are identified as underprepared and in need of support. This course is designed to provide underprepared students with concurrent support while they are enrolled in Math A160.

## PREREQUISITES:

### COREQUISITES:

- MATH A160: Introduction to Statistics

## ADVISORIES:

### ASSIGNED DISCIPLINES:

Mathematics

**MATERIAL FEE:** Yes [ ] No [X] Amount: \$0.00

**CREDIT STATUS:** Noncredit [ ] Credit - Degree Applicable [ ] Credit - Not Degree Applicable [X]

**GRADING POLICY:** Pass/No Pass [X] Standard Letter [ ] Not Graded [ ] Satisfactory Progress [ ]

**OPEN ENTRY/OPEN EXIT:** Yes [X] No [ ]

**TRANSFER STATUS:** CSU Transferable [ ] UC/CSU Transferable [ ] Not Transferable [X]

**BASIC SKILLS STATUS:** Yes [X] No [ ]

**LEVELS BELOW TRANSFER:** 1 level below transfer level

**CALIFORNIA CLASSIFICATION CODES:** Y - Not Applicable

**NON CREDIT COURSE CATEGORY:** Y - Not applicable, Credit Course

**OCCUPATIONAL (SAM) CODE:** E

**REPEATABLE ACCORDING TO STATE GUIDELINES:** No [ ] Yes [X] **NUMBER REPEATS:** 0

**REQUIRED FOR DEGREE OR CERTIFICATE:** No [X] Yes [ ]

## GE AND TRANSFER REQUIREMENTS MET:

**COURSE LEVEL STUDENT LEARNING OUTCOME(S) Supported by this course:**

1. Graph linear equations and identify the slope and intercepts.
2. Solve linear inequalities in one variable and graph the solution on a number line.

**COURSE OBJECTIVES:**

1. Address the affective side of learning in order to provide students with the skills necessary to be successful in a transfer level math course.
2. Perform operations with real numbers.
3. Understand and use percents, ratios and proportions.
4. Understand and use algebraic topics essential to statistics.
5. Graph lines.
6. Developed skills essential from solving word problems.

**COURSE CONTENT:**

**LECTURE CONTENT:**

**Lecture Content:**

- A. Learning skills
  1. Study skills
  2. Time management
  3. Math anxiety
  4. Test taking skills
- B. Operations with real numbers
  1. Rounding
  2. Addition, subtraction, multiplication, and division of real numbers
  3. Order of operations
  4. Computations with a calculator
  5. Scientific notation
  6. Summation notation
  7. Interval notation
- C. Percents
  1. Percents as decimals and fractions
- D. Ratios and proportions
  1. Ratios as fractions
  2. Solving problems involving proportions
- E. Algebraic topics essential to statistics
  1. Evaluating algebraic expressions
  2. Solving linear equations
  3. Solving inequalities in one variable
  4. Graphing an inequality in one variable on the number line
  5. Function notation and the algebra of functions
  6. Square roots
  7. Rational exponents
- F. Introduction to graphing lines
  1. The Cartesian coordinate system
  2. Finding intercepts and slopes of lines
  3. Graphing linear equations
  4. Interpreting the graph of a linear equation
- G. Skills for solving word problems in statistics
  1. Identify the question to be answered
  2. Setting up appropriate notation
  3. Setting up an appropriate equation/inequality
  4. Clearly communicating the correct answer

H. Exponential and logarithmic functions. (optional)

1. Introduction to exponential and logarithmic functions. (optional)

2. Properties of exponential and logarithmic functions. (optional)

Solving equations involving exponential and logarithmic terms. (optional)

**Lab Content:**

None

**LABORATORY CONTENT:**

**METHODS OF INSTRUCTION:**

A. Lecture:

B. Independent Study:

**INSTRUCTIONAL TECHNIQUES:**

Lecture, discussion, collaborative learning

**COURSE ASSIGNMENTS:**

**Reading Assignments**

Textbook chapters and supplements

1.0 hour/week

**Out-of-class Assignments**

Out of class assignments may include:

A. Practice problem sets requiring application of course material

B. A data set assignment requiring the organization, analysis, and interpretation of raw data

C. Preparation assignments that require students to answer specific questions that will be discussed in an upcoming class meeting.

2 hours/week

**Writing Assignments**

A. Short-answer questions.

B. Essay questions.

C. Group and/or individual projects.

1.0 hour/week

**METHODS OF STUDENT EVALUATION:**

Midterm Exam

Final Exam

Short Quizzes

Written Assignments

**Demonstration of Critical Thinking:**

Group work, quizzes, written tests or comprehensive final exam, and application of skills in support of Statistics.

**Required Writing, Problem Solving, Skills Demonstration:**

Group work, quizzes, written tests, or comprehensive final exam.

**TEXTS, READINGS, AND RESOURCES:**

**TextBooks:**

## MATH A096-Support for Introduction to Statistics

1. Sullivan, M.. *Statistics with Integrated Review (to accompany Statistics: Informed Decisions Using Data 5th edition)*, 2nd ed. Pearson, 2017

### **Other:**

1. Instructors may choose to use software such as MyStatLab, StatCrunch, ALEKS, WebAssign, Excel, R, JMP, MINITAB, ActivStats, SAS, SPSS, or TI-graphing calculators.
2. Other appropriate textbook as chosen by fulltime faculty

### **LIBRARY:**

**Adequate library resources include:** Print Materials  
Non-Print Materials  
Online Materials  
Services

### **Comments:**

### **Attachments:**

[Attached Files](#)