

SINCLAIR COMMUNITY COLLEGE  
DAYTON, OHIO

DEPARTMENT SYLLABUS FOR COURSE IN

**MAT 0450 – INTRODUCTORY STATISTICS BOOSTER**  
(1 CREDIT HOUR  $\equiv$  2 CONTACT HOURS)

1. **COURSE DESCRIPTION:** This course is taken in conjunction with MAT 1450, Introductory Statistics. This course reviews prerequisite concepts for the topics in MAT 1450. Each prerequisite concept is covered in this course just prior to being needed in MAT 1450. The topics covered in this course include use of summation notation, evaluation of algebraic expressions, rounding rules, solving equations and inequalities with square roots, extracting information from tables and graphs.
2. **COURSE OBJECTIVES:** This is a course of study that allows students to take Introductory Statistics simultaneously by providing just-in-time remedial mathematical support. The course is designed in the hope of motivating students who would otherwise need to complete Intermediate Algebra before getting to the college level course. This course focuses on areas where students are struggling and reinforces the college-level material.
3. **PREREQUISITE:** Satisfactory score on Mathematics Placement Test or grade of "C" or better in MAT 1270.
4. **ASSESSMENT**  
Grades will be calculated as follows:

In-class group work*	30%
Out-of-class assignments	70%
Total	100%

  
The following grading scale will be used:

A	90.0% - 100.0%
B	80.0% - 89.9%
C	70.0% - 79.9%
D	60.0% - 69.9%
F	0 – 59.9%
5. **CALCULATOR:** A scientific or graphing calculator is required.
6. **MAT 1450 TEXT:** **THE BASIC PRACTICE OF STATISTICS**, Seventh Edition  
Moore/Notz/Fligner  
Macmillan Education W. H. Freeman and Company  
**Adopted: Fall 2015**
7. **PREPARED BY:** Craig Birkemeier, Robert Chaney, Wendy Cheng  
**Effective: Spring 2017**

\*In-class group work is embedded in the weekly worksheet. The grading should be based on its completion. However, the out-of-class assignments should be graded based on the correctness.

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CLASS SCHEDULE FOR COURSE IN  
**MAT 0450 – INTRODUCTORY STATISTICS BOOSTER**  
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Week	Co-Requisite Content	MAT 1450 Content
1	Statistical Distributions Rounding Numbers Square Roots/Radicals	Chapter 1 Picturing Distribution with Graphs Chapter 2 Describing Distributions with Numbers
2	Use Summation Notation	Chapter 2 Describing Distributions with Numbers
3	Solve Linear Equations and Inequalities (with fractions) Convert Variables	Chapter 3 The Normal Distributions
4	Linear Equations More on the Sigma Notation ( $\Sigma$ )	Chapter 4 Scatterplots and Correlation Chapter 5 Regression
5	Exam 1 Practice Problems	Chapter 5 Regression Test 1
6	Sets and Set Notation Union and Intersection of Sets Two-Way Tables	Chapter 6 Two-Way Tables Chapter 8 Producing Data: Sampling Chapter 12 Introducing Probability
7	Sample Space and Basic Probability Rules	Chapter 12 Introducing Probability Chapter 13 General Rules of Probability
8	Convert Variables from $\bar{X}$ to Z Predict the Change in the Value of a Fraction	Chapter 15 Sampling Distributions
9	Exam 2 Practice Problems Plus-Minus Notation/Evaluating Expressions and Critical Thinking	Test 2 Chapter 16 Confidence Intervals: The Basics
10	Comparison of Decimal Numbers (P-Value) Equations with Square Roots (Solve for the Sample Size with a Desired Margin of Error)	Chapter 17 Tests of Significance: The Basics Chapter 18 Inference in Practice
11	Differentiating Matched Pairs from Two-Sample Problems The T-Table	Chapter 20 Inference about a Population Mean
12	Exam 3 Practice Problems	Test 3 Chapter 21 Comparing Two Means
13	Solve Equations with Square Roots (Test Statistics for Proportions)	Chapter 22 Inference about a Population Proportion
14	Use the Summation Formula to Find the Value of Chi-Square Test Statistics	Chapter 25 Two Categorical Variables: The Chi-Square Test
15	Exam 4 Practice Problems	Test 4
16	Review/Study Hall	Final Exam