

SINCLAIR COMMUNITY COLLEGE  
DAYTON, OHIO

DEPARTMENT SYLLABUS FOR COURSE IN  
**MAT 0470 - COLLEGE ALGEBRA BOOSTER**  
(1 CREDIT HOUR = 3 LAB CONTACT HOURS)

1. **COURSE DESCRIPTION:** This course is taken in conjunction with MAT 1470, College Algebra. This course reviews prerequisite concepts for the topics in MAT 1470. Each prerequisite is covered in this course just prior to being needed in MAT 1470. Topics covered include: operations on polynomial, radical, and rational functions, solving quadratic/rational equations/applications and graphing basic functions.
2. **COURSE OBJECTIVES:** This is a course of study that allows students to take College Algebra 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 a grade of "C" or better in MAT 1270.
4. **ASSESSMENT:**  
Grades will be calculated as follows:

In-class group work*	40%
Pre-Lecture MML	30%
Out-of-class assignments	30%
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. **TEXT:** **MAT 0470 Workbook**  
  
**MyMathLab** is a required component of this course. It will give students access to the online version of the MAT 1470 textbook, as well as a set of homework assignments and quizzes.
6. **CALCULATOR POLICY:** A scientific calculator is required. Graphing calculators are not allowed on exams.
7. **INTERNSHIP:** Please include the following in your syllabus:  
  
Experiencing an internship in your field of study is the best way to begin a career. Companies offer opportunities throughout the year for students to

practice what they learned in the classroom to solve real world of work problems. To learn more about internship opportunities and how to connect your skills with a future employer, contact Chad R. Bridgman, M.S.M. Internship Coordinator for Science, Mathematics & Engineering by phone 937-512-2508, office (3-134), or email [Chad.Bridgman@Sinclair.edu](mailto:Chad.Bridgman@Sinclair.edu), and begin test driving your future career today!

7. PREPARED BY:

Richard Uchida

**Effective: Spring 2017**

Week	Co-Requisite Content	MAT 1470 Content
1	Factoring; Simplifying Expressions; Solving Quadratic Equations; Solving Inequalities Evaluating Functions; Simplifying Rational Expressions; Add/Subtract Rational Expressions; Graphing Basic Functions	Section 2.4 Section 2.5
2	Slope of a Line; Equations of Lines Standard Form of Quadratic Functions; Graphing Basic Functions	Section 2.6 Section 2.7
3	Simplifying Expressions/Rational Expressions; Adding/Subtracting Rational Expressions; Complex Fractions	Section 2.8
4	Solving Quadratic/Rational Equations; Solving Literal Equations; Domain of Functions Pre-Exam 1	Section 2.9
5	Solving Quadratic Equations; Intercepts of Functions	Exam 1 Section 3.1
6	Solving Quadratic Equations; End Behavior of Functions	Section 3.2
7	Factoring Polynomials; Simplifying Expressions Polynomial Terminology; Solving Quadratic Equations; Dividing Polynomials	Section 3.3 Section 3.4
8	Imaginary Numbers; Simplifying Expressions; Synthetic Division	Section 3.5 Section 3.6
9	Interpreting Graphs; Solving Inequalities Pre-Exam 2	Section 1.5
10	Simplifying Exponential Expressions	Exam 2 Section 4.1
11	Simplifying Exponential Expressions; Solving Inequalities Compound Interest	Section 4.2 Section 4.3
12	Solving Equations	Section 4.3 Section 4.4
13	Solving Equations; Graphing Equations	Section 8.1 Section 8.2
14	Pre-Exam 3	Exam 3
15	Equations of Circles Review	Section 8.4 Section 9.1
16	Review	Final Exam