

COURSE OUTLINE

Mathematics 341 Skills for College Success in Elementary Algebra

I. Catalog Statement

Mathematics 341 is designed to complement Mathematics 141 in the development and practice of essential study techniques and course material for success in elementary algebra. Topics include integration of web-based supplemental instruction, life management skills, strategies for successful classroom experience, and critical thinking/problem solving strategies.

Total Lecture Units: 2.0

Total Course Units: 2.0

Total Lecture Hours: 48.0 (3 hours per week)

Total Faculty Contact Hours: 48.0 (3 hours per week)

Corequisite: Mathematics 141.

Note: This course is Pass/No Pass only.

II. Course Entry Expectations

Skills Expectations: Reading 5; Writing 5; Listening-Speaking 5; Math 0

While enrolled in this course, the student should be able to:

1. solve percent problems;
2. use correct order of operations;
3. evaluate expressions;
4. find area and perimeter of squares, rectangles, triangles, and circles;
5. solve linear equations;
6. use laws of exponents;
7. add, subtract, and multiply polynomials;
8. graph linear equations;
9. use algebra to solve linear applications.

III. Course Exit Standards

Upon successful completion of the required course work, the student will be able to:

1. describe elementary algebra outcomes and objectives;
2. solve algebraic equations;
3. use critical thinking skills to better analyze, synthesize, and evaluate ideas and information;
4. make use of life-skills that improve the likelihood of success in Elementary Algebra;

5. apply knowledge of math community resources and college support services;
6. apply academic success strategies.

IV. Course Content

Total Contact Hours = 48

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| A. Mathematical Content | 32 hours |
| 1. Operations on real numbers | |
| 2. Solutions of linear equations and inequalities | |
| 3. Linear equations and inequalities in two variables | |
| 4. Systems of linear equations | |
| 5. Exponents and polynomials | |
| 6. Factoring | |
| 7. Rational expressions and equations | |
| 8. Roots and radicals | |
| 9. Quadratic equations and graphs | |
| B. Math Study Skills Content | 16 hours |
| 1. Time management | |
| 2. Motivation for college success in mathematics | |
| 3. Critical thinking skills | |
| 4. Test taking techniques | |
| 5. Goal setting | |
| 6. Transferring / career exploration resources | |
| 7. College support resources | |
| 8. Math community resources | |

V. Methods of Instruction

The following instructional methodologies may be used in this course:

1. classroom lecture/discussion;
2. classroom activities;
3. computer activities;
4. guest speakers;
5. small group work/discussion.

VI. Out of Class Assignments

The following out of class assignments may be used in this course:

1. reading and working exercises;
2. projects, for example, visiting various college resources and answering questions about their services;
3. using software to work exercises and watch videos related to content.

VII. Methods of Evaluation

The following methods of evaluation may be used in this course:

1. worksheets reinforcing algebraic techniques;
2. group work.

VIII. Textbook

Nolting, P., Math Study Skills Workbook, 4th Edition.

Boston: Houghton Mifflin Company, 2011.

10th Grade Textbook Reading Level. ISBN: ISBN 0-840-05309-6.

Barclay, Judy. Solving Algebra Word Problems.

Belmont, CA: Brooks/Cole Cengage Learning, 2005.

10th Grade Reading Level. ISBN 0-534-49573-7.

IX. Student Learning Outcomes

- 1 Student will work successfully on elementary algebra level assignments with fellow students both in and out of the classroom.
2. Incorporate strategic academic and life skills in planning and self-assessment of mathematics success.
3. Use available campus resources to make educational decisions.