

Ms. Regan
College Algebra - Math 113
Weds. and Fri. 11:30 am - 2:30 pm CST

General Information

- This course is intended as a preparation for liberal arts or business calculus. This course will concentrate on Functions, i.e. their equations, graphs, composition and application. Functions studied include polynomial, rational, radical, exponential, logarithmic, trigonometric, and inverse trigonometric. The use of graphing calculators is an integral part of this course.
- No prerequisites.
- Restrictions: This course is not open to students who have successfully completed Finite Mathematics or Calculus.
- Credit hours: 3
- Textbook: Beginning and Intermediate Algebra (4th Edition) by Elayn Martin-Gay

College-wide Competencies

Holy Cross College has five college-wide competencies and related learning outcomes:

- critical and creative thinking
- written and oral communication
- human and spiritual growth
- technology and information management
- quantitative reasoning

In this course specifically, quantitative reasoning and critical thinking will be skills developed by the students through following lessons in algebra that include both word problems and equations. This will be measured by homework assignments and tests throughout the semester.

Objectives

- 1) Recognize different types of equations.
- 2) Gain mastery at solving algebraic equations using symbolic manipulation and using graphing techniques.
- 3) Develop a fluency in applying equations and problem solving techniques for real world applications.
- 4) Compute lengths and angles in triangles using trigonometric functions.

Grading

Weekly homework assignments will be given - it is better to complete these on your own (see copying vs. collaborating policy). In order to receive full credit for the weekly assignments, they

must be turned in on time. Late work will be accepted, but not for full credit. The possible grade will drop by 10% each class it is late. The assignments can be revised and re-submitted for corrections to improve scores, only if it was turned in on time. Class participation is expected, which includes verbal participation in lectures when possible and participation in class worksheets and activities. There will be a midterm exam after the first four weeks of material and a final exam on the last day of class. Final grades will be assigned based on the following rubric:

- 15% Class Participation
- 60% Homework Assignments
- 10% Midterm Exam
- 15% Final Exam

The grading scale is:

A = 94-100	C+ = 77-79
A- = 90-93	C = 72-76
B+ = 87-90	C- = 70-71
B = 82-86	D = 60-69
B- = 80-81	F = 59 or below

Copying vs. Collaborating

Solving homework problems can be challenging and involve multiple people to discuss ideas. Thus, collaboration is heavily encouraged unless stated that an assignment should specifically be completed alone. The class is free to work in groups to discuss possible solutions and check arguments. However, all written work to be handed in is required to be done individually and in your own words. All students should always try problems by themselves in order to prepare for exams. Copying statements and solutions word for word, especially if you do not personally understand, is dishonorable and the work will not be accepted. Any copied homework will be returned with a grade of a zero. If working in collaboration, please list collaborators on top of written work.

Topics (Subject to Change Depending on Progress)

Week 1/2 - Review of real numbers, fractions/decimals, variable expressions and equations (Chapter 1)

Week 3 - Equations and problem solving - applications! (Chapters 2 and 4)

Week 4 - Types of Equations: polynomial (Chapters 5 and 6)

Week 5 - Types of Equations: radical, exponential and logarithmic (Chapter 10 and 12)

Week 6 - Composition of functions and graphing (Chapter 12.1 and Chapters 3 and 8)

Week 7 - Graphing Cont. and Summary of Solving/Recognizing Equations

Week 8 - Trigonometry!