

Pre-Calculus 2006

Upward Bound
Jason Miller, Instructor

Course Objectives:

The purpose of this course is to prepare the students for any Pre-Calculus course. This will include review topics discussed in Algebra II and introduction to key concepts in advanced functions and trigonometry.

Course Expectations:

It is expected that the students come to class prepared to take part in mature conversations about the topics being studied. This requires the students do all homework that is assigned.

Grading:

Notebook: 5%

Class Participation: 20%

Projects: 25%

Quizzes: 30%

Homework: 20%

Notebook:

Mathematics is a difficult subject made easier by organization. We can never hope to remember everything, so it is important that we have reference materials that can be accessed quickly and easily. During the summer we will be creating a notebook which may be used in this manner.

Classwork/Participation:

Participation is expected. This will consist of projects, exercises, and mathematical based conversations.

Quizzes:

Quizzes will occur quite frequently. You may plan on having a quiz at least once a week.

Projects:

We will be working on a couple of projects during the course of the summer. Participation on these projects is mandatory.

Homework:

Homework will be given on a daily basis. It is expected that the students complete each assignment. Collected homework will be graded based on neatness, completeness, and content.

Topics by Day:

June 26: Familiar Functions and Relations

June 28: Manipulating Graphs

June 30: Composition and Inverse Functions

July 5: Quadratic Functions

July 7: Polynomial Functions

July 10: Rational Functions – holes and asymptotes

July 12: Solving Rational Equations

July 17: Solving Radical Equations

July 19: Logarithms

July 21: Solving Logarithmic Equations

July 24: Pythagorean Theorem and the Unit Circle

July 26: Area and Law of Sines

July 28: Law of Cosines

July 31: Periodic Functions

August 1: Graphing Trig Functions

August 3: Wrap up