

Expectations for Pre-Calculus: Functions, Trigonometry, and Practical Applications
Watershed School Fall 2009
Pete Kalajian

Course summary: This will be a course that continues building on the algebra foundations of earlier work, with particular emphasis on visualizing functions. We will explore the relationships between theoretical and applied mathematics through a combination of classroom study, individual projects, group collaboration and problem solving work on ALEKS. We may also explore trigonometric functions during the fall semester. This course will be taught at a high level and require a considerable amount of preparatory work outside of the classroom.

The first week of class will be an ALEKS refresher, just to get your heads back into the swing of mathematics.

This is a discussion-based class, and as such, the teacher is peripheral. Students will be responsible for keeping the discussion lively and productive. Students are responsible for helping each other gain mastery over problems presented. Confusion and frustration are inevitable parts of the learning process, and can best be met with cheerful acceptance.

Specific Course expectations to receive credit:

- Students will come prepared for class with math notebook, suitable sharp pencils, a calculator. Laptop computers with graphing software are highly recommended.
- Students will be ready to begin class with notebooks open promptly at the scheduled time.
- Students are expected to maintain a cheerful and collegial attitude during class. Participation is *vital*, not just desirable. This is meant to be a discussion, not a series of lectures.
- Each student will be responsible for preparing to lead an enquiry into several problems presented during class sessions.
- Students are required to keep a journal of their daily work in a bound examination book. All coursework is to be recorded in this book. A double line will separate the daily entries and a date will be written in the top left corner below each double line. All work to be in pencil. Please don't erase anything. Mark a single horizontal line through anything you would have erased. These journals are to be neat organized, and legible so that I can review them.
- Reading assignments will be assigned periodically. Students are expected to make reading notes and be prepared to take assessments based on the reading material. Questions about the readings can be brought up during class periods. Students are expected to master the material presented.

- At least once per week, students will work independently on ALEKS or on problems/projects at the direction of the instructor.
- Students who are struggling with a particular concept or problem type are encouraged to seek help from the instructor as early as possible to avoid frustration.
- Homework will be a part of this class. As a goal, aim for setting aside 4 hours per week to prepare the homework. Homework may consist of readings, problem presentation preparation, preparation for assessments, or assessment corrections. I am prepared to have an ongoing dialog on the workload outside of class, but consider the 4-hour goal to be fair and acceptable.
- Maintain a 75% or better average on periodic assessments. All wrong answers must be revised within one week of receipt of graded assessment.
- Score 75% or better on the end of semester evaluation.

Assessment will be based on:

- The quantity and quality of in-class participation.
- Periodic in-class problem assessments.
- Quality of in-class presentation work.
- End of semester final assessment.

In order to receive honors evaluation, the student must:

- Demonstrate a high level of enthusiasm for the material in class discussions.
- Demonstrate a high level of understanding of your individual presentation concepts and make a clear and interesting presentation.
- Maintain an 85% average on periodic assessments.
- Score 85% or better on the end of semester Assessment.