Text: Advanced Mathematics A Precalculus Course

Prerequisite: successful completion of Algebra II.

**General thoughts:** the goal in this class is to help students learn how to develop problem solving techniques for problems they have not seen before.

**Attendance**: Good attendance is vital to success in mathematics. Students are expected to have excellent attendance. Students are expected to make up missed work promptly. Assignments are posted online.

**Tardy Policy**: the school tardy policy will be followed.

**Seating and Participation**: Students will sit in assigned seats. Students should come to class prepared to learn. This means coming to class with their textbook, ultrabook, paper, pencil, calculator, and previous assignments.

**Calculator**: A calculator of some type is allowed.

**Class Conduct**: students are strongly encouraged to ask questions, but are reminded that communication occurs most clearly when only one person at a time is speaking. It is always appropriate to raise ones' hand to ask a question during class. Class discussion about how to work a particular problem, and student presentation of various different solutions is often the most productive part of this class. Students will have many opportunities to solve problems at the board.

**Homework**: practice is essential in order to learn to solve math problems. Students will have many opportunities to practice solving problems. Quizzes will occur about every two weeks. Students who wish to may put together a packet of correctly completed assigned problems, along with a cover sheet (available here: <a href="http://www.johndilsaver.com/trigonometry/table.of.contents.pdf">http://www.johndilsaver.com/trigonometry/table.of.contents.pdf</a>). The instructor will collect these and spot check on quiz days. Well completed packets will increase quiz scores by about 4%. The instructor reserves the right to make the increase larger. This option is only available on the actual day of the quiz. This is an attempt to send the message to the student that in completing a homework assignment, you need to understand the material, not just have managed to obtain "the answer".

**Help**. Help exists in several forms to assist the student with completing work on time. Assignments are posted in advance in Rm 243. With block scheduling there is always a day between our class meetings. Students are encouraged to get help during advisory. Further, you are encouraged to come in before or after school for help. In addition, students are encouraged to form study groups and help each other.

**Trigonometry reviews**: occasionally a trig review sheet will be passed out. This review assignment is in addition to whatever analysis assignments we have that week. The review paper will be due at the beginning of the next week. Questions from trig review sheets are fair game for use as quiz questions.

**Technology use.** Generally, the use of technology is encouraged. Occasionally we may do an exercise or part of a quiz without technology. Using a cell phone to google the date that Leonhard Euler proved the infinite sum of the reciprocals of the squares of the positive integers  $=\frac{\pi^2}{6}$  would be appropriate. Using a cell phone to text your gf of bf or bff or mhfm would not be appropriate.

- **Quizzes**: -- will occur about every two weeks. Generally, students will receive a review sheet or some guidance as to what might be on the quiz.
- **Semester Final**: a comprehensive final will be given at the end of each semester covering all of the material for that semester. The semester final will count as 10% of the semester grade.
- **Grading.** Each students grade will be determined by their percentage of total possible points. Each assignment, quiz, or test is worth points. In a typical quarter, 50% of the points might be from tests, 10% from quizzes, and 40% from homework scores. Grades are on a percent scale as follows: 90 100% = A, 80 89% = B, 70 79% = C, 60 69% = D, 0 59% = F.

The major topics we will cover are: Counting and probability (ch 15). Some topics from geometry (Ch 7), Exponents and Logarithms (ch 5), Sequences and Series (ch 13)