



Precalculus (College Prep)

Course Overview: This is a typical course in Precalculus, designed to prepare students for both the depth and rigor of Calculus at the AP or College/University level. Skills and concepts covered range from intermediate algebra skills to trigonometry and up to, and including, limits.

Teacher Expectations: Students will deepen and polish their algebra manipulation skills. They will also be able to demonstrate actual fluency in their Unit Circle knowledge and applications. This means they will be able to think in both degrees, radians and reference angles and not merely convert from one unit to another and memorize values. They will also be able to show understanding of mathematical concepts rather than just memorizing and applying algorithms to solve problems. Actual mathematical thinking will be shown.

Recommended Preparation: Students should have passed Algebra 2 or Honors Algebra 2 and demonstrated sufficient algebra skills as well as conceptual knowledge.

Average Time to Complete HW = Typically (under normal in-seat circumstances) HW would take up to a max of around an hour a day, but more commonly 30+ minutes. Under the current COVID19 circumstances we are typically teaching on in-seat/online days and students work on assignments on their off days so 30-60 minutes but only a couple of days per week.

Type of HW Assignments:

- Taking notes on each section/lesson
- Book problems (maybe 10-20)
- Online assignments using WebAssign (also 10-20 problems)

Student Learning Expectations/Outcomes: Students will be able to demonstrate knowledge of concepts by solving a variety of problems (including ones they may not

have seen exactly before but that apply the same concepts they have been working with). They will be able to demonstrate fluency in using and applying the unit circle and analyzing graphical limits as well.

Three Big Ideas of Precalculus:

1. Intermediate Algebra
2. Trigonometry
3. Limits

Format/Types of Assessments/Projects etc...

Tests and quizzes are typically done in-seat, on paper, with ALL work expected to be shown to demonstrate mastery. Under COVID19, all tests are done through WebAssign.net with students uploading all evidence of their work uploaded to Google Classroom/Canvas, etc.

Any other course information which may be valuable for an interested student to know: This is a very interesting course as it is the first class in which students finally get a glimpse of how many of the mathematical concepts from all of their previous class finally come together and start to integrate together to allow for understanding and applications.