

Pre-Calculus Honors Syllabus

Course Details

Course Code: 413100HW

Subject: Mathematics

Required Prerequisites: Algebra1, Algebra 2, and Geometry

Suggested Prerequisites: Successful completion of honors level Algebra 1, Algebra 2, and Geometry or teacher recommendation

Recommended Grade Levels: 11th

Duration: Yearlong

Course Availability: A listing of when this course is offered in the current school year can be found on the <u>VirtualSC Current Course Offerings page</u> (opens in a new window).

Class Times: This course has scheduled instructional meetings. Information on scheduled meetings for each course is communicated by the teacher. Recordings of these meetings will be available for students unable to attend. Students should expect to spend 7-9 hours a week working on this course independently, in addition to any live meetings, and are expected to meet the deadlines posted in the course pacing guide.

Textbook: None

Required Course Materials: Desmos Online Calculator (opens in a new window)

Outside Websites: A list of links to websites and online textbooks used in this course can be found here: <u>VSC Course Links Document Folder (opens in a new window)</u>. Students will need to be able to access all of these links to access all course materials.

Final Exam: Students in this course take a VirtualSC final exam. Details on scheduling and taking final exams can be found on the <u>Final Exam Page</u> (opens in a new window) of the VirtualSC webpage.

Course Description

Precalculus is a program of mathematical studies focusing on the development of the student's ability to understand and apply the study of functions and advanced mathematics concepts to solve problems.

Emphasis is placed on active participation through modeling, activities, and communication in mathematics. With concentrated effort by the student, this course will provide an adequate foundation for a subsequent study of calculus.

The curriculum used in this course is guided by the <u>SCCCR Standard for Mathematics</u> (opens in a new window).

Scope and Sequence

- 1. Unit 1: Function Basics
- 2. Unit 2: Quadratics and Polynomials
- 3. Unit 3: Rational and Radical Functions
- 4. Unit 4: Exponential and Logarithmic Functions
- 5. Unit 5: Trigonometry Basics
- 6. Unit 6: Graphing Trigonometry Functions
- 7. Unit 7: Trigonometry Identities
- 8. Unit 8: Law of Sines and Cosines
- 9. Unit 9: Analytic Geometry
- 10. Unit 10: Vectors
- 11. Unit 11: Polar and Complex Numbers
- 12. Unit 12: Systems of Equations and Matrices
- 13. Final Exam

Students will be sent a full list of assignments and their due dates at the beginning of the course.

Current pacing guides for this course can be found on the <u>Current Course Offerings</u> page (opens in a new window) on the VirtualSC website.

Course Grades

The final grade in this course results from the following:

- Coursework: 80%
- Final Project: 5%
- Final Exam: 15%

VirtualSC Details

Information on VirtualSC student guidelines, policies and technology requirements can be found in the <u>VirtualSC Student Support Portal (opens in a new window)</u>.