



Honors Precalculus

Syllabus SP27

Introduction

Welcome to the Richland High School Syllabus for SDC Honors Precalculus. This syllabus serves as a comprehensive guide to the structure, objectives, and key components of this course.

Course Information

- **Course Title:** State Dual Credit (SDC) Honors Precalculus
- **Course Code:** G02H23
- **Instructor:** Mrs. Hawkins
- **Email:** jhawkins@gcboe.us
- **Office Hours:** Mondays 3:00-4:00 or by appointment
- **Academic Year:** Spring 2027

Course Description

This course offers an in-depth exploration of Algebra II Review (Prerequisites), Functions and Graphs, Polynomial Power & Rational Functions, Exponential, Logistic, and Logarithmic Functions, Conics, Trigonometry, Discrete Mathematics, and an Introduction to Calculus. Students who successfully complete this sequence will have a strong background for a first year Calculus sequence. As part of the requirement for this honor's level course, students must complete rigorous assignments which may include complex problem-solving, research that involves reading assignments outside of class time, investigations and explorations, and making connections within the discipline and to the workplace.

Course Objectives

In preparation for Calculus, by the end of this course, students will be able to:

1. Analyze functions and their graphs.
2. Evaluate trigonometric and inverse trigonometric functions, and their graphs.
3. Simplify expressions and solve various types of equations.
4. Investigate real world applications involving functions, polar coordinates, and vectors.

Textbook and Materials

- **Textbook:** ["Precalculus: An Investigation of Functions" by David Lippman and Melanie Rasmussen](#)
- **Additional Materials:** Four function calculator, Chromebook, paper, pencil
- In class resources will follow the curriculum produced by the State Dual Credit board and will be made available for review within 10 days of a written parental request.

Grading Policy

Grades will be based on the following components:

- **Practices:** 15%
- **Quizzes:** 20%
- **Exams:** 65%

Classroom Rules and Expectations

- enter/exit the classroom in an orderly manner.
- pay attention to announcements and deadlines.
- turn in papers properly (with names).
- use class materials properly.
- turn in cell phones to the assigned caddy number.
- dispose of trash properly.
- take care of all needs before class begins.
- treat yourself and others with respect.
- work efficiently and follow deadlines.
- bring all materials to class.
- determine work missed during absences and turn it in by set deadlines.
- keep chromebooks charged.
- follow guidelines set in the student handbook.
- adhere to academic integrity at all times.

Possible Consequences

- verbal reprimand
- disciplinary referral
- parent contact
- teacher discretion
- zero on assignment/exam

Late Work

Practice work is accepted late for a **15 point deduction** past the due date, up until the Unit Exam.

Make Up Work

Make-up work is accepted up to 2 days per day absent (per board policy) without penalty.
IT IS YOUR RESPONSIBILITY TO RESCHEDULE and TURN IN MISSED ASSIGNMENTS AND/OR ASSESSMENTS.

**Preannounced work is expected on due dates.*

Course Pacing Guide

The course pacing guide outlines the timing for the semester. The following table provides a glimpse of what to expect: *timing is subject to school calendar changes

SDC Precalculus Pacing: RHS SP27			
Pacing	Lesson	*Textbook	**Objectives
Day 1	Getting Started/Orientation	*online link will be provided in class	**corresponding objectives can be located through Google Classroom
Day 2	Pretest of Prerequisite Skills		
Day 3	Intro Chapter 1 and 2: Functions and Linear Functions Functions and Function Notation	Section 1.1	3a
Day 4	Domain and Range	Section 1.2	3a
Day 5	Rates of change; behavior of graphs	Section 1.3	3a,3c,6c
Day 6	Operation and composition of functions	Section 1.4	3e
Day 7	Transformation of functions	Section 1.5	3a,3b
Day 8	Inverse Functions	Section 1.6	3a,3f
Day 9	Linear functions and Equations/Inequalities	Section 2.1	1a,2a,2b,2c,3a,
Day 10	Graphs of linear functions; modeling with linear functions	Sections 2.2 and 2.3	1a,3a,3b,3c,6a,6c,6d,6e
Day 11	Absolute value functions and equations	Section 2.5	1a,1e,1f,2a,2b,2c,3a,3b,3c,3d
Day 12	REVIEW Intro Chapter 3: Polynomial and Rational Functions		
Day 13	Power and polynomial functions	Section 3.1	3a
Day 14	Unit 1 and 2 Exam		
Day 15	Quadratic functions; quadratic equations; quadratic inequalities	Section 3.2	1a,1b,1f,1i,2a,2b,2c,3a,3b,3c,3d,5d,6a,6d,6e
Day 16	Graphs of Polynomial Functions	Section 3.3	1c,1f,3a,3b,3c,3d
Day 17	Factor and Remainder Theorem; Real Zeros of Polynomials	Sections 3.4	1a,1b,1c,1d,1f
Day 18	Real Zeros of Polynomials	Section 3.5	1a,1b,1c1d,1f
Day 19	Complex Zeros	Section 3.6	1a,1b,1c1d,1f,1i,2a,2b,2c,3a,3d
Day 20	Rational functions and equations; Rational functions and inequalities	Section 3.7	1a,1e,1f,1h,1i,2a,2b,2c,3b,3c
Day 21	Inverses and Radical Functions and Equations/Inequalities	Section 3.8	1e,1f,1h,1i,2a,2b,2c3a,3b,3c
Day 22	REVIEW Intro Chapter 4: Exponential and Logarithmic Functions		
Day 23	Exponential functions; graphs of exponential functions	Sections 4.1 and 4.2	1g,3a,3b,3c

Day 24	Unit 3 Exam		
Day 25	Logarithmic Functions	Section 4.3	1g
Day 26	Logarithmic Properties	Section 4.4	1g
Day 27	Graphs of Logarithmic functions	Section 4.5	1g,3a,3b,3c
Day 28	Exponential and logarithmic models	Section 4.6	1g,3a,3b,3c,6a,6c,6d,6e
Day 29	Solving logarithmic equations and inequalities	Section 4.6; supplement with outside resources	1a,1e,1f,1g,1i,2a,2b,2c,3a,6d,6e
Day 30	REVIEW Intro Chapter 5: Trigonometric Functions of Angles		
Day 31	Circles	Section 5.1	5d,5e
Day 32	Unit 4 Exam		
Day 33	Angles in Standard Position, angles in degrees and radians, converting from degrees to radians and radians to degrees; coterminal angles	Section 5.2	4a
Day 34			
Day 35	Arc length, area of a sector; Linear speed and angular speed	Section 5.2; supplement with outside resources	5f
Day 36	Unit Circle	Section 5.3	4a
Day 37	Trigonometric Values of special angles on the unit circle (all six trig functions)	Section 5.4	4a
Day 38	Right Triangle Trigonometry	Section 5.5	4a,5a,6b,6d,6e
Day 39	REVIEW Intro Chapter 6: Periodic Functions		
Day 40	Graphing Sine and Cosine with varying amplitude, period, phase shifts, vertical shifts	Section 6.1	4b,6c
Day 41	Unit 5 Exam		
Day 42	Graphing Sine and cosine with varying amplitude, period, phase shifts, vertical shifts	Section 6.1; supplement with outside resources	4b,6c
Day 43	Graphing Secant, cosecant, tangent and cotangent functions	Section 6.2	4b,6c
Day 44	Inverse Trig Functions and compositions of inverse trig functions	Section 6.3	4a,4d
Day 45	Solving trig equations	Section 6.4	1f,1i,4a,4e
Day 46	Solving trig equations	Section 6.4 and supplement with outside resources	1f,1i,4a,4e
Day 47	Modeling with trigonometric equations	Section 6.5	1f,1i,4a,4b,6a,6c,6d, 6e
Day 48	REVIEW Intro Chapter 7: Trigonometric Equations and Identities; Chapter 8: Further Applications of Trigonometry		
Day 49	Basic trigonometric identities (including Pythagorean identities)	Section 7.1	4c,4d,4e
Day 50	Unit 6 Exam		
Day 51	Solving Trig equations with identities	Section 7.1; supplement with outside resources	1f,1i,4a,4c,4d,4e

Day 52	Sum and Difference Identities	Section 7.2	4c,4d,4e
Day 53	Double Angle Identities; Power-Reducing and half-angle identities	Section 7.3	4c
Day 54	Modeling Changing Amplitude and Midline	Section 7.4	6a,6c,6d,6e
Day 55	Oblique Triangles: Law of Sines and Law of Cosines	Section 8.1	5b,6b,6d,6e
Day 56	Graphing Polar Coordinates	Section 8.2	5g
Day 57	Introduction to Vectors and operations on vectors; Finding magnitude and direction of vectors	Section 8.4	4a,5c
Day 58	Review		
Day 59	Review		
Day 60	Unit 7 and 8 Exam		
FLEX Days for Schedule Adjustments			
Day 61	FLEX DAY		
Day 62	FLEX DAY		
Day 63	FLEX DAY		
Day 64	FLEX DAY		
Projects and Final Exams			
Day 65	Teach the Teacher Prep		
Day 66	Teach the Teacher Prep		
Day 67	Teach the Teacher Presentations		
Day 68	Teach the Teacher Presentations		
Day 69	Teach the Teacher Presentations		
Day 70	Teach the Topic Project		
Day 71	Teach the Topic Project		
Day 72	Teach the Topic Project		
Day 73	Teach the Topic Project		
Day 74	Teach the Topic Project		
Day 75	Teach the Topic Project		
Day 76	Teach the Topic Project		
Day 77	Review for Finals		
Day 78	Final Exam		