



COLORADO SPRINGS SCHOOL DISTRICT 11
Achievement, Learning, & Leadership

COURSE CHANGE

REQUEST FOR APPROVAL

SPRING 2023



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HIGH SCHOOL LEVEL

Course Name: Honors Precalculus 1 & 2

New Course Name: AP Precalculus 1 & AP Precalculus 2

Course Code: MA.PRCAL1H; MA.PRCAL2H

New Course Code: MA_PC1AP & MA_PC2AP

State Course Code: 02114

Subject/Department: Mathematics, AP

Course Length: Two (2) Semester(s)

Grade: 9-12

Prerequisite: Algebra 1 & 2, Geometry, Algebra 3 & 4, Teacher Recommendation

New Credits per Semester: (1) AP Precalculus 1/2, (1) Elective

Course Description: The student who is planning to take AP Calculus should take this course. This course offers an analytical and cohesive study of concepts introduced in previous courses and introduces new topics such as functions, vectors, analytic geometry, and probability. Theory and rigor are stressed. A special project may be required. Graphing calculators are required for this course. (12/94)

New Course Description: AP Precalculus introduces students to mathematical modeling and functions as a foundation for calculus and other college-level mathematics needed for various STEM majors and careers. Topics typically include polynomial & rational functions, exponential and logarithmic functions, trigonometric & polar functions, and functions involving parameters, vectors, and matrices.

Reason for Change: This course is replacing Honors PreCalculus. While the content covered is similar, it allows students to take the AP exam to receive potential college credit and prepare them for college-level mathematics expectations.

NEW COURSE OR COURSE CHANGE REQUEST

Content Facilitator Name/Role: Paul Bunge – K12 Math/STEM Facilitator	Content Area: Mathematics	Date: 1/24/2023
If request originated by a staff member at a school, list name(s) below. Ashley Weitzel, Math teacher at Doherty High School.		

Course Title (if this is a deletion request, provide the current details):

Course Length: Year Long

Course Code: MA_PC1AP, MA_PC2AP

State Course Code/SCED: 02114

Subject/Department: Mathematics, AP

Prerequisite: Algebra 1/2, Geometry, Algebra 3/4

Credits per Semester: (1) - Mathematics

Graduation credit priority cascade: AP Precalculus 1/2 meets mathematics credit first, general elective second

Course Description: AP Precalculus introduces students to mathematical modeling and functions that serve as a foundation for calculus and other college-level mathematics needed for a variety of STEM majors and careers. Topics typically include polynomial & rational functions, exponential and logarithmic functions, trigonometric & polar functions, and functions involving parameters, vectors, and matrices.

If this is a change, what is the new Course Description? Yes, see course description above.

If this is a change please share the Reason for the Change/Deletion:

This course is replacing Honors PreCalculus. While the content covered is similar, it provides students the opportunity to take the AP exam to receive potential college credit and prepare students for college level mathematics expectations.


Remember to include a copy of a course outline (not a link) with this approval form when submitting for signature. No requests will be processed without this documentation.

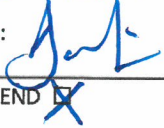
NEW COURSE OR COURSE CHANGE REQUEST


Is this a new course?	YES: <input type="checkbox"/> NO: <input checked="" type="checkbox"/>
Is this a course change?	YES: <input checked="" type="checkbox"/> If yes, Please specify the change: <i>change stated above.</i> NO: <input type="checkbox"/>
Is this a course deletion?	YES: <input type="checkbox"/> NO: <input checked="" type="checkbox"/>
Will this course require submission to NCAA Clearinghouse? (all Math, ELA, Science, SS, WL courses are required)	YES: <input checked="" type="checkbox"/> NO: <input type="checkbox"/>

Please share any additional context if needed

SIGNATURES

Content Facilitator: Name: <i>Paul Bunge</i> Date: <i>1/24/2023</i> Signature: 	
RECOMMEND <input type="checkbox"/>	DO NOT RECOMMEND <input type="checkbox"/> Why?

Area Superintendent: Name: <i>Darren Joiner</i> Date: <i>2/13/23</i> Signature: 	
RECOMMEND <input checked="" type="checkbox"/>	DO NOT RECOMMEND <input type="checkbox"/> Why?

Director of Curriculum and Instruction: Name: <i>KAROL GATES</i> Date: <i>3-1-2023</i> Signature: 	
RECOMMEND <input checked="" type="checkbox"/>	DO NOT RECOMMEND <input type="checkbox"/> Why?

AP Pre-Calculus
Fall Semester/Spring Semester

Instructor: Dr Tracy Vinton

Location: Doherty High School, Room 227

Office Hours: M-F 3:10-3:30pm

Office Phone Number: 719-328-2747

Email Address: tracy.vinton@d11.org

Text: Carter, Cuevas, Day, Malloy, Bryan, Holliday, Hovsepian. (2014). *Precalculus*. McGraw-Hill Education.

Graphing Calculators: A graphing calculator will be required for this course. Strongly recommend using the TI-84/84+ calculator.

Course Description: Polynomial, rational, exponential, logarithmic, trigonometric and polar functions; and functions involving parameters and vectors. The following Mathematical Practices are incorporated throughout the curriculum: procedural and symbolic fluency, multiple representations (graphical, numerical, analytic and verbal), communication and reasoning. Prerequisites: Two years of high school algebra or equivalent.

Evaluation/Grading Procedures:

Grading Scale: A: 100-89.5%; B: 79.5-89.4%; C: 69.5-79.4%; D: 59.5-69.4%; F: anything below 59.5%

Grade Basis: points will be accumulated from classwork, homework, quizzes, tests, projects and cumulative semester exams. Grade will be comprised of 15% classwork/homework, 30% quizzes, 40% chapter tests/project, and 15% cumulative semester exam.

Grading & Cheating: ALL work must be SHOWN to receive credit. Papers with answers only will NOT be accepted for credit. Cheating is a form of academic dishonesty where a student attempts to give the appearance of a level of knowledge or skill that they have not attained. Cheating is defined as participation in any activity in which a student knowingly misrepresents or assists another student to misrepresent his or her actual achievement in any form of academics.

Examples include, but are not limited to:

- Copying from work that is not one's own while completing an independent assignment or assessment.
- Allowing someone to copy one's work while completing an independent assignment or assessment.
- Completing an assignment for another person.
- Using unauthorized materials not approved by the teacher during a quiz, test, or exam.
- Stealing, reproducing, circulating, or otherwise gaining access to quiz, test, or exam materials prior to the time authorized by the teacher.
- Retaining, possessing, using, or circulating previously given quiz, test, or exam materials without approval from the teacher.

In any case of cheating or academic dishonesty, the following consequences will occur:

1. Student will receive an automatic "0" for the assignment/assessment in question and no make-up will be granted
2. Teacher will notify the student's parents/legal guardians
3. A disciplinary referral will be written.

Make-Up/Late Work: You will have 2 class periods from day assigned to submit homework for full credit. YOU are responsible for getting assignments and setting up a time to make up quizzes and tests. Tests are to be made

up within one week of the date taken. If you know you are going to be gone, you are to get assignments BEFORE you leave.

Schedule of Activities: following is a TENTATIVE schedule of information being covered

Sem. 1 Week #	Sections covered
1	1.1 (Functions & their properties)
2	1.2 (Analyzing Graphs of Functions & Relations) & 1.3 (Continuity, End Behavior & Limits)
3	1.4 (Extrema and Average Rates of Change) & Review, Quiz
4	1.5 (Parent Functions & Transformations) & Piecewise Functions
5	1.6 (Function operations & Composition of Functions)
6	1.7 (Inverse Relations and Functions) Review, Ch. 1 (Functions & Graphs) Test
7	2.1 (Power and Radical Functions) & 2.2 (Polynomial Functions)
8	2.3 (The Remainder and Factor Theorems) , Review, Quiz
9	2.4 (Zeros of Polynomial Functions) & 2.5 (Graphs of Rational Functions)
10	2.5 & 2.6 (Nonlinear Inequalities)
11	Review, Ch 2 (Power, Polynomial, and Rational Functions) Test
12	3.1 (Exponential Functions) & 3.2 (Logarithmic Functions)
13	3.3 (Properties of Logarithms) Review , Quiz
14	3.4 (Exponential and Logarithmic Equations) & 3.5 (Modeling with Nonlinear Regression)
15	3.5 & Review, Ch 3 (Exponential and Logarithmic Functions) Test
16	10.1 (Sequences, Series, & Sigma Notation) & 10.2 (Arithmetic Sequence and Series)
17	10.3 (Geometric Sequence and Series) Review, Quiz
18	Exam Review and Final Exam

Sem. 2 Week #	Sections covered
1	4.1 (Right Triangle Trigonometry)
2	4.2 (Degrees and Radians), Review, Quiz 4.3 (Trigonometric Functions on the Un

3	4.3 & 4.4 (Graphing Sine and Cosine Functions)
4	Review, Mid-Chapter Test, 4.5 (Graphs of Tangent, Cotangents, Secant, and Unit Circle Quiz
5	4.5 & 4.6 (Inverse Trigonometric Functions)

6	4.7 (The Law of Sines and Law of Cosine Graphing Trigonometric Functions Quiz
7	Review & Ch. 4 (Trigonometric Function 5.1 (Trigonometric Identities)
8	5.2 (Verifying Trigonometric Identities) & 5.3 (Solving Trigonometric Equations)
9	Review, Quiz 5.4 (Sum and Difference Identities)
10	5.5 (Multiple-Angle and Product-to-Sum Review, Ch 5 (Trigonometric Identities a
11	9.1 (Polar Coordinates) 9.2 (Graphs of Polar Equations)
12	9.3 (Polar and Rectangular Forms of Eq Review, Quiz
13	7.5 (Parametric Equations),

	Review, Quiz
14	Standardized Testing-PSAT, SAT, CMAS
15	8.1 (Introduction to Vectors) & 8.2 (Vectors in the Coordinate Plane)
16	8.3 (Dot Product & Vector Projections) Review, Quiz
17	12.1 (Estimating Limits Graphically) & 12.2 (Evaluating Limits Algebraically)
18	Review, Quiz Exam Review
19	Exam Review and Final Exam