

MATH 176 PRE-CALCULUS SYLLABUS SPRING SEMESTER 2012

INSTRUCTOR: Bryan Elliott www.cuyamaca.edu/bryan.elliott

SECTIONS: Section 9375 MW room H127 7:30am-10:20am

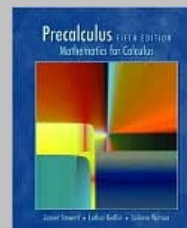
CONTACT INFORMATION: You may contact me in my office H112 at 660 4551. You may contact via email at bryan.elliott@gcccd.edu

OFFICE HOURS: MW 6:45am-7:30am & 12:30pm – 1:00pm
W 1pm –1:30pm
These are subject to change.

My office is in H112, I am also available by appointment. Please be sure to call or email me if you are going to miss class to get the homework assignment so you can be prepared for the next class.

INTRODUCTION: Welcome to Pre-Calculus! Please read this syllabus carefully. I feel that it will answer most of the questions you may have about how Math 176 fits in with your goals as a student at Cuyamaca College. This course is intended to prepare students for a comprehensive course in calculus and is required for a major in mathematics, physics, chemistry, engineering, and computer science, as well as many of the life sciences. Math 176 satisfies the graduation requirement in mathematics at Cuyamaca College.

TEXT: Precalculus Mathematics for Calculus; 5th Edition; Stewart et al.



PREREQUISITES: Mathematics 110 with a grade of “C” or better. (Math 103 does not meet the prerequisite.) or satisfactory score on the math placement test.

MATERIALS: Use of graphing technology is required in this course. You will be assigned homework problems and lab projects which require the use of a graphing calculator. Cuyamaca College recommends the TI84plus, TI89, Voyage 200 or TI Nspire. The instructor will primarily use the TI84plus.

Any information given here may change at the discretion of the instructor at any time.
This course adheres to the policies outlined in the Cuyamaca College catalogue.
For further information, see Academic Policies stated in the catalogue.

EXPECTED STUDENT LEARNING OUTCOMES:

- Define all six trigonometric functions in terms of a triangle, the coordinate system and the unit circle.
- Compute angles and sides of triangles in terms of degree or radian measure.
- Graph trigonometric functions and their inverse functions, and discuss the domain, range and properties of these functions.
- Prove trigonometric identities and apply trigonometric identities to solve for exact values, simplify expressions and solve equations.
- Analyze physical problems and create trigonometric relationships involving triangles, the coordinate system, the unit circle or vectors.
- Analyze linear, quadratic, polynomial, rational, absolute value, exponential, logarithmic and piecewise-defined functions as well as inverse functions from a graphic, numeric and analytic perspective
- Analyze and solve applied problems from various disciplines and involving a variety of equations including but not limited to: linear, quadratic, polynomial, rational, radical, absolute value, exponential and logarithmic equations as well as systems of equations
- Apply critical thinking and mathematical reasoning skills necessary in collegiate-level algebraic problem solving in related disciplines such as science, business and engineering
- Classify conic equations and construct graphs of conic sections
- Observe, interpret and analyze the behavior of graphs of a wide variety of functions and statistical plots
- Utilize sequences and series equations to solve theoretical and applied problems from various disciplines such as science, business and engineering
- Select and apply appropriate technology including but not limited to graphing utilities to model, analyze and interpret a collection of data or to solve real-world application problems requiring the use of collegiate level problem solving skills
- Advance readily to higher level math classes - Calculus.

EXAMINATIONS:

- CHAPTER TESTS: There will be at least 5 exams, your lowest score from this group will be **REPLACED** by your next lowest exam score.
- FINAL EXAM: The final exam will be comprehensive. This exam **may not** be dropped.

MAKEUP TESTS: There will be NO MAKEUP or RESCHEDULED TESTS. Please don't ask.

HOMEWORK: You will be provided a list of assignments for each chapter. You are expected to do all assignments. Failure to complete the assignments, will almost **definitely assure a failing grade** in the course. Mathematics is a subject that is *learned by doing*, not by watching. Any difficulties with homework assignments may be discussed with your instructor. Homework will be turned in every third week.

LAB PROJECTS: The lab projects will be available at the appropriate time of the course. There will be at least 2 lab projects each designed to allow the student to examine "real world" applications using technology as a tool. Incomplete lab assignments will not be accepted.

GRADING: Your grade will be computed as follows:

Exams will each be worth 100 points; quizzes will vary in points, individual & group projects may be assigned, each will be worth 10 points.

The following grading scale is used:

90-100%	A	Excellent Achievement of Course Objectives
80-89%	B	High Achievement of Course Objectives
70-79%	C	Satisfactory Achievement of Course Objectives
60-69%	D	Minimal Achievement of Course Objectives
below 60%	F	Failure

MAKING THE GRADE: In order to pass this class with a grade of C or higher, the student must:

- **Earn a D or better on the final exam**, and
- Have an overall grade in the class of at least 70%.

For example, if a student has an overall grade of 92% before taking the final exam, and earns an F on the final exam which drops the overall grade down to 84%, the highest grade the student could earn for the class would be a D.

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OTHER ITEMS:

- **ATTENDANCE:** Class attendance is **strongly** advised. I have the authority to do an instructor initiated drop, should you miss the equivalent of 2 weeks of classes. Students find that learning is enhanced through in class interaction with their peers and their instructor. For most students regular attendance will be essential to achieve satisfactory results.
- **TARDINESS:** Chronic tardiness will not be tolerated. Arriving late and/or leaving early will cause you to be dropped after 10 incidents.
- **PERMANENT FOLDER:** Please retain all quizzes, exams, labs, and homework etc. in a folder until you have received your grade for the course.
- **WITHDRAWAL POLICY:** Students may withdraw from the course through November 10. No withdrawals will be approved after that date without documented evidence - such as a medical emergency or relocation - or being physically unable to complete the course.
- **CHEATING POLICY:** Students found cheating on tests will receive an "F" for the assignment, suspended from class for a minimum of 3 classes, and be subject to the College's disciplinary procedures.
- **CELL PHONES:** These will be ***turned off or completely silent***(vibrate mode is not silent) while inside our classroom.

ACCOMMODATIONS: A student with a verified disability may be entitled to appropriate academic accommodations. Please contact the instructor and/or the Disabled Students Program and Services Office for further information

- **EXTRA HELP:** To support your efforts to succeed in this class, it is highly recommended that you utilize the free math tutoring services available in the STEM tutoring center. The hours last semester were 9am-5pm M-Th, 9am-12pmF. Please check with the STEM center for the current semesters hours.

CONCLUSION: Pre-Calculus is a challenging course but the methods for success are simple: study every day to make sure you don't fall behind in the class; get help as needed from your instructor and /or the learning center; get to know other students in class - many students find it helpful to study in groups; and most of all, cultivate the attitude **"I can do this!"**. Success in Pre-Calculus helps build a solid foundation in mathematics which in turn will provide you with career opportunities in many fields including science, business, and medicine.