

**YUBA COMMUNITY COLLEGE DISTRICT  
COURSE OUTLINE**

**STATIC ID #**

**DATE EFFECTIVE:** FALL, 2004

**DEPARTMENT** MATH **No.** 7  
**TITLE:** PRECALCULUS

**DIVISION** ATMESH **TOTAL HOURS** 72 **LECTURE** 72  
**LAB** 0 **UNITS** 4

**ABBREVIATED TITLE** (MAX. OF 20 INCL. SPACES) PRECALCULUS

**IS COURSE CROSS LISTED:** YES  NO  **IF YES, DEPARTMENT(S) & #(S):**

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**NEW COURSE**  **REVISED COURSE**  **TECHNICAL REVISION**

**DISTRIBUTIVE ED.**

(IF NEW COURSE, COMPLETE NEW COURSE ADDENDUM) (IF ON-LINE/ITV, COMPLETE ON-LINE/ITV  
ADDENDUM)

(IF REVISED COURSE, ANNOTATE SECTION):

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**DEGREE CREDIT**  **NON-DEGREE**  **NON-CREDIT**  **GRADING METHOD:**  
**LETTER**  **CR/NC**

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**ARTICULATION:** This course is intended to be (respond to all that apply):

A. General education at: CSU  UC  Yuba  (petition filed?)

B. Transferable to: CSU  UC  Other

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C. Required in transfer major Yes  No  If yes, in what major?

\_\_\_\_\_

To what school? \_\_\_\_\_;

What is the title of that school's equivalent course? UCD – Math 12, UCSC –

Math 3,

UCR – Math 5, CSUS – Math 29

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**APPROVALS:** The following signatures are required:

California Education Code (Title V) Requirements are Met by Course

I have contacted full-time faculty in the discipline and the Instructional Deans at the Lake, Marysville, and Woodland Campuses to inform them of course development/revision.

**Signatures (Signed/Printed):**

**For Office Use**

Data Entry By \_\_\_\_\_

YCCD Equate Code \_\_\_\_\_

TOPS CODE \_\_\_\_\_

SAM CODE \_\_\_\_\_

Crs. Classification \_\_\_\_\_

Transfer Code \_\_\_\_\_

UC Trnsfr Code(s) \_\_\_\_\_

Unit Limitation \_\_\_\_\_

CSU Trnsfr Code(s) \_\_\_\_\_

Course CAN Code \_\_\_\_\_

Author: \_\_\_\_\_ / \_\_\_\_\_ Date: \_\_\_\_\_

Dean: \_\_\_\_\_ / \_\_\_\_\_ Date: \_\_\_\_\_

Articulation Officer's Recommendation:

Articulation: \_\_\_\_\_ / \_\_\_\_\_ Date: \_\_\_\_\_

VPI: \_\_\_\_\_ / \_\_\_\_\_ Date: \_\_\_\_\_

Curriculum Co-chairs:

\_\_\_\_\_ / \_\_\_\_\_ Date: \_\_\_\_\_

\_\_\_\_\_ / \_\_\_\_\_ Date: \_\_\_\_\_

Board Approval Date: \_\_\_\_\_

Date of Revision/Review: \_\_\_\_\_

**YUBA COMMUNITY COLLEGE DISTRICT  
COURSE OUTLINE**

**DEPARTMENT:** Math  
**COURSE NUMBER:** 7

**TITLE:** Precalculus  
**NUMBER:**

**UNITS:** 4                      **CAN**

**TOTAL COURSE HOURS:** 72                      **LECTURE HOURS:** 72  
**LAB HOURS:** 0

**COREQUISITE(S):** None

**PREREQUISITE(S):** Math 52 and Math 21 with “C” or better

**PREREQUISITE REVISION:** Is there a significant change in the prerequisite? Yes [ ]  
No [X]  
If yes, validate with a new prerequisite content review summary form. Attach to course outline.

**RECOMMENDATION(S):**  
                                    Language [X]                      Mathematics [X]                      Other [ ]

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**I. CATALOG/CLASS SCHEDULE DESCRIPTION**

Calculus-oriented coverage of geometry, algebra, and trigonometry including elementary transcendental functions, conics, systems of equations, and mathematical induction; designed to prepare students for calculus (Math 1A). (L)

**COURSE CONTENT**

**A. Course Purpose**

To prepare students for Calculus.

**B. Course Objectives**

At the conclusion of this course, the student will be able to:

Complete mathematics problems associated with calculus-oriented algebra, trigonometry and geometry.

Recognize, understand, and work with a wide variety of functions and graphs.

Recognize applications of pre calculus mathematics to such fields as Physics, Biology, Engineering, Astronomy, Business, and Earth Science.

**C. Course Topical Outline**

Review of numbers, algebra, and geometry

Functions and graphs  
Polynomials and rational functions  
Conics  
Exponential and logarithmic functions  
Trigonometric functions and polar coordinates  
Systems of equations  
As time permits: mathematical induction, sequences, series, and parametric equations.

**D. Critical Thinking**

Activities that require critical thinking include:

Complete math problems

Analyze functions, limits and graphs

Understanding families of functions that can be used to model real world behavior

**III. GENERAL METHODS OF INSTRUCTION**

*Please indicate all appropriate methods of instruction*

Lecture, discussion, ITV

Possible group work

**IV. METHODS OF ASSESSMENT**

*Please indicate all methods of assessment*

Quizzes, problem solving exercises, exams

**V. MATERIALS OF INSTRUCTION**

Textbook(s)

Pre Calculus, Mathematics for Calculus, 4<sup>th</sup> edition by Stewart

B. Other Material (if applicable)

**VI. ASSIGNMENTS**

**Degree Applicable Course:**

A. Reading Assignments

B. Writing Assignments

C. Outside Assignments

Problem solving exercises/activities

Skills practice

**VII. APPROPRIATENESS TO COLLEGE MISSION** (*Check all that apply*):

X *Lower Division Degree Credit*

     *Community Interest*

     *Occupational Preparation*

     *Upgrade of Skills*

X *Transfer Course*

     *Remedial*

**Revised & Classified (Show the semester this outline will be implemented.)**

**Yuba Community College District  
Distributive Education Addendum**

Course Dept/Number: Math 7 Course Title: Pre calculus

Telelecture     Online     Telepackage     Enhanced  
Telepackage

**Course Content and Evaluation**

The following will be utilized to replace the traditional face-to-face instruction. For instance, a three-unit lecture class meets students three hours per week. Check the appropriate areas that are comparable.

<input type="checkbox"/> E-mail searches	<input type="checkbox"/> Calendar	<input type="checkbox"/> Web-
<input type="checkbox"/> Quizzes	<input type="checkbox"/> Bulletin Board	<input type="checkbox"/> Chat
<input type="checkbox"/> Assignments Lectures	<input type="checkbox"/> Reading Lectures	<input type="checkbox"/> Watching
<input type="checkbox"/> Web-browsing	<input type="checkbox"/> Textbook	

**How will On-Line and ITV techniques be used to accomplish the grading method indicated in the course outline.**

Students are required to take exams and quizzes on campus

**Student-Instructor Contact**

**What methods will the instructor use to keep in contact with students?**

E-mail                       Message/Bulletin Board     Telephone

Mail                               Other

**How will students with disabilities be accommodated?**

Both state and federal law require community colleges to operate all programs and activities in a manner, which is accessible to students with disabilities. Accordingly,

as the Yuba Community College District develops its capacity for creation of technology based instructional resources and the delivery of distance education, it must proceed with the needs of all students in mind, including the unique needs of students with disabilities.

Title 5, Code of Regulations, Section 55370 et seq. expressly states that the Requirements of the Americans with Disabilities Act are applicable to Distance Education courses. Accordingly, as the Yuba Community College District develops its capacity for creation of technology base instructional resources and the delivery of distance education; it must proceed with the needs of all students in mind, including unique needs of students with disabilities.

**How will students have access to course materials?**

Via mail, bookstore and library

**Yuba Community College District  
New Course Addendum**

**Course Dept/Number:** \_\_\_\_\_ **Course Title:**  
\_\_\_\_\_

SITE OF ORIGIN: MARYSVILLE [ ]      WOODLAND [ ]      LAKE [ ]      DISTRICT [ ]

1. For what student population is this course intended?
  
2. What is the justification for adding this course?
  
3. Are there existing courses with similar content? Yes [ ] No [ ]

If yes, list the courses considered and answer the questions below:

\_\_\_\_\_

- a. Why are they not suitable for the content of this course?
  
- b. How might they be affected by offering this course?

What new or additional facilities, equipment, staffing or other non-budgeted items will be required to teach the course? How will they be provided?

What new or additional library, media and other district resources will be needed to offer the course?

If this course is started from grant funding, how will it be continued thereafter?

