

Cuyamaca College

Math 280 – Analytic Geometry & Calculus II
Section 9384 – Spring 2012

Instructor: Dan Curtis
Class Times: MW 6:00-7:50 pm
Office Hours: Monday 11:30 am-1:00 pm
Tuesday 2:00-4:00 pm
Wednesday 11:30 am-1:00 pm
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Office: H115

Prerequisites: A grade of C or better in Math 180 or the equivalent.

Text and Materials:

- **Calculus, Early Transcendentals**, Seventh Edition, Stewart
- A scientific or graphing (recommended) calculator is required. The TI 84+, TI 89, Voyage 200 or TI-92+ are highly recommended.

Course Description: Continuation of Math 180. Includes parametric equations, polar coordinates, hyperbolic functions, techniques of integration, indeterminate forms, infinite series and conics.

<u>Important Dates:</u>	Last day to add classes/Last day to drop and qualify for a refund and to drop without receiving a “W”	Friday, Feb 3
	Last day to file a petition for credit/no credit	Friday, Feb 24
	Last day to drop with a ‘W’	Friday, Apr 20
	Final Exam (Cumulative)	Wed, May 23 6:00-8:00pm

It is the student’s responsibility to take care of any administrative procedures involved in dropping should he/she stop attending class.

Grading: Your final grade will be based on the percentage of total points you earned, using the standard scale: A = 90% and above, B = 80-89.9%, C = 70-79.9%, D = 60-69.9%, F = below 60%.

Exams: There will be three two-hour exams (each worth 70-100 points each) during the semester. Exam questions will be based on the homework, and I will review the material covered on the exam during class on the last class day before the exam. You will be allowed one 5 x 8 sheet of notes. No makeup exams will be given, but if you contact me **before** the day of an exam, I may be able to make arrangements for an alternate time for you to take the exam. The final (worth 150) will be cumulative. For the final, you will be allowed one 8 ½ x 11 sheet of notes, front and back.

Homework: You have the option to do homework on paper or online using WebAssign. For the paper option, homework assignments will be collected on exam days (including the midterm and final) each worth 2 points per section. Each section should start on a new sheet of paper and be clearly labeled. To receive credit, you must show your work. A list of answers is not acceptable. Your homework grade will be based on the number of problems you attempted. If you choose the WebAssign option, the assignments will typically involve fewer problems, but you must correctly solve each problem to get full credit.

Individual and Group Projects: Throughout the semester, there will be projects due (worth 10-20 points each). The projects will consist of problems that are more interesting and involved than the typical homework and exam problems. Most projects will start as in class assignments, but will require time outside the classroom to finish. For individual projects, students are encouraged to work together, but each student is responsible for completing and submitting his/her own project. For group projects, only one finished assignment will be turned in for each group.

STEM Achievement Center: To support your efforts to succeed in this class, I refer you to the STEM Achievement Center (H-Building). The STEM Achievement Center is a resource center that provides individual assistance in mathematics and science. Instructors and student tutors are available to answer homework questions, give confidence, and support math students. Students also have access to graphing calculators, textbooks, instructional videos, and computer tutorial programs. Computers are also available for student use. The STEM Achievement Center is open Monday through Thursday from 8:30 am to 5:30 pm and Friday from 9:00 am to noon.

Course Objectives (Expected Student Learning Outcomes)

To successfully complete this course, students must demonstrate the ability to:

- Use various techniques of integration to evaluate the antiderivative of a single-variable function.
- Apply numerical methods of integration including midpoint, trapezoidal and Simpson's rule and their relationship and order of errors to evaluate both proper and improper integrals.
- Use integrals to represent a quantity of interest such as volume or total income by first examining a finite sum approximation of the quantity and then extrapolating to the limit (applications from geometry, economics, physics and probability).
- Use the Mean Value Theorem and L'Hopital's Rule to evaluate integrals and solve problems.
- Apply Taylor and Fourier series as approximations of functions using simpler functions.
- Use Geometric series to solve application problems.
- Convert between polar and rectangular coordinates and use the area formula in polar coordinates.
- Identify, manipulate and graph the standard and general forms of parabolas, ellipses and hyperbolas including translations and rotations.
- Select and apply appropriate technology including but not limited to computer programs and graphing utilities to model, analyze and interpret a collection of data or to solve real-world application problems requiring the use of analytic geometry and calculus.

Attendance: Good attendance is a must for success in this class. College policy states that a student may be dropped from the course for excessive absences or tardies.

My Policy: Four absences during the first four weeks or six absences during the entire semester and you may be dropped – arriving significantly late or leaving significantly early counts as half an absence.

Disability Support Services: Academic accommodations are available for students with disabilities. Please identify yourself to your instructor and to DSPP staff so that the appropriate accommodations can be ensured. DSPP is at A-300, LRC (660-4239)

Academic Honesty: Academic dishonesty of any type by a student provides grounds for disciplinary action by the instructor or college. If you cheat, there will be consequences: I may give you a zero on the assignment or a zero in the course, or other additional consequences, regardless of whether you were the giver or receiver of the cheating.

Misconduct: Disruptive or threatening behavior or any conduct that interferes with my ability to teach or another student's ability to learn will not be tolerated. Such actions could result in a warning, removal from the class, or referral to the Dean for disciplinary action. Please turn off your cell phones during class.

Week	Monday	Wednesday
Wk 1 (1/23)	Intro, 7.1	7.1
Wk 2 (1/30)	7.2	7.3
Wk 3 (2/6)	7.4	7.5
Wk 4 (2/13)	7.7	4.4
Wk 5 (2/20)	No Class	Review
Wk 6 (2/27)	Exam #1	7.8
Wk 7 (3/5)	10.1	10.2, 8.1
Wk 8 (3/12)	10.3	10.4
Wk 9 (3/19)	10.5	10.6
Wk 10 (3/26)	Review	Exam #2
April 2 – April 6 Spring Break		
Wk 11 (4/9)	11.1	11.2
Wk 12 (4/16)	11.3	11.4
Wk 13 (4/23)	11.5	11.6, 11.7
Wk 14 (4/30)	Review	Exam #3
Wk 15 (5/7)	11.8	11.9
Wk 16 (5/14)	11.10	Review for Final
Finals Week		Final Exam Wed, May 23 6:00-8:00 pm

Homework Assignments

7.1 #3, 11, 17, 19, 21, 25, 27, 37, 45, 55
 7.2 #3, 9, 11, 13, 21, 25, 31, 33, 37, 41
 7.3 #5, 7, 9, 11, 14, 17, 19, 21, 23, 32
 7.4 #11, 15, 17, 19, 23, 29, 33, 43, 49, 57
 7.5 #1, 5, 9, 13, 23, 27, 49, 53, 63, 75
 7.7 #1, 3, 5, 7, 11, 13, 19, 21, 31, 35
 4.4 #7, 11, 17, 19, 25, 31, 41, 49, 57, 63
 7.8 #1, 5, 7, 13, 27, 31, 43, 49, 51, 55
 8.1 #7, 11, 13, 15, 19, 23, 33
 10.1 #3, 7, 9, 11, 13, 17, 21, 25, 31, 37
 10.2 #7, 11, 15, 17, 19, 25, 27, 31, 41, 65
 10.3 #1, 3, 5, 11, 17, 25, 35, 55, 61, 69
 10.4 #1, 5, 9, 13, 21, 27, 29, 41, 45, 47
 10.5 #7, 15, 19, 25, 27, 33, 41, 43
 11.1 #1, 5, 11, 17, 21, 25, 33, 39, 41, 73
 11.2 #1, 5, 15, 19, 23, 27, 31, 43, 53, 57
 11.3 #5, 7, 11, 15, 25, 27, 29, 37
 11.4 #1, 2, 3, 5, 7, 13, 15, 17, 25, 31
 11.5 #1, 3, 5, 7, 9, 13, 17, 23, 29, 33
 11.6 #1, 3, 5, 11, 13, 15, 21, 23, 29, 35
 11.7 #1, 5, 9, 11, 13, 17, 23, 25, 31, 33
 11.8 #1, 2, 3, 7, 9, 11, 15, 19, 23
 11.9 #5, 7, 9, 11, 13, 15, 17, 27, 31
 11.10 #5, 13, 25, 33, 37, 49, 51, 57, 61, 63