

VICTOR VALLEY COLLEGE SYLLABUS

SPRING 2008

Course No.: **Math 227** Course Title: **Calculus II** Units: **5**
Section No.: **18728** Class Hours: **5:30 – 8:00 PM** Days: **MW** Room: **21-125**

Instructor Name: **Michael Butros** Office No: **31 - 45**

Office Hours: **Monday 12:30 – 2:45, Tuesday 5:30 – 6:30, and Wednesday 2:30 – 3:30**
Other times available by appointment

Telephone: **(760) 245 – 2471 x 2506**

E-mail: butros@vvc.edu

Instructor URL: <http://www.butros.info/Michael.html>

SPRING 2008

Spring Semester Begins	February 11
Lincoln Day Holiday	February 15
Washington Day Holiday	February 18
Spring Holiday	March 21
Spring Break	April 7-12
Memorial Day Holiday	May 26
Spring Semester Ends	June 7

WITHDRAWAL POLICY

Last day to withdraw from a 16-week class and receive a “W” is April 29, 2008.

Prerequisite: Math 226 – Calculus I with a grade of “C” or better.

Textbook: Calculus 8th Edition, Larson, Hostetler, and Edwards

Course Description: This class covers the calculus of logarithmic, exponential trigonometric and hyperbolic functions, integration techniques, L’Hospital’s Rule, improper integrals, infinite series, conic sections, parametric equations and polar coordinates.

Course Objectives:

The student will be able to:

1. Differentiate and integrate logarithmic, exponential, trigonometric, and hyperbolic functions.
2. Integrate using the integration by parts, trigonometric substitution and partial fractions.
3. Obtain the power series of a given function.
4. Evaluate Improper Integrals using limits, L’Hopital’s Rule and the comparison test.
5. Define and plot curves using parametric equations.
6. Calculate the area and arc length using polar coordinates.
7. Identify the differences between the conic sections.
8. Determine the convergence or divergence of an infinite series.

Course Content

❖ Logarithmic, Exponential Trigonometric and Hyperbolic Functions:

- The Derivative of Logarithmic Functions.
- The Integral of Logarithmic Functions.
- Inverse Functions.
- Exponential Functions: Differentiation and Integration.
- Bases other than e
- Growth and Decay Models.
- Inverse Trigonometric Functions and Differentiation.
- Inverse Trigonometric Functions and Integration.
- Hyperbolic Functions.

❖ Integration Techniques:

- Basic Integration Rules
- Integration by Parts
- Trigonometric Integrals
- Trigonometric Substitution
- Partial Fractions
- Integration by Tables
- Indeterminate Forms and L'Hospital's Rule
- Improper Integrals

❖ Infinite Series

- Sequences
- Series and Convergence
- The Integral Test
- Comparison Test
- Alternating Series
- The Ratio and Root Tests
- Power Series
- Representing Functions Using Power Series
- Taylor and Maclaurin Series

❖ Conic Sections:

- Parabolas
- Ellipses
- Hyperbolas
- Rotation and The General Second-Degree Equation

❖ Plane Curves, Parametric Equations, and Polar Coordinates:

- Plane Curves and Parametric Equations
- Parametric Equations and Calculus
- Polar Coordinates and Polar Graphs
- Area and Arc Length in Polar Coordinates

Attendance Policy: **Regular attendance is strongly recommended.** *(Class attendance is not a measure of performance or proficiency. Whether a student is just physically present in the class is not a valid basis for grading. Reference Title 5 Section 55002 of the California Code of Regulations: (A) Grading Policy. The course provides for measurement of student performance in terms of stated course objectives and culminates in a formal, permanently recorded grade based upon uniform standards in accordance with section 55758 of this Division. The grade is based on demonstrated proficiency in the subject matter and the ability to demonstrate that proficiency, at least in part, by means of written expression that may include essays, or, in courses where the curriculum committee deems them to be appropriate, by problem solving exercises or skills demonstrations by students.)*

Grading Policy: The grading for this class will consist of the following components:

- Homework 10 %
- Quizzes 10 %
- Exam One 15 %
- Exam Two 15 %
- Exam Three 15 %
- Exam Four 15 %
- Final 20 %

The final grade will be given according to the following scale

Total Percentage	Final Grade
90 – 100	A
80 – 89	B
70 – 79	C
60 – 69	D
0 – 59	F

IMPORTANT NOTE: Students with disabilities, whether physical, learning, or psychological, who believe that they may need accommodations in this class, are encouraged to contact Disabled Student Program & Services as soon as possible to ensure that such accommodations are implemented in a timely fashion. Authorization from DSPS is required before any accommodation can be made.

Class Conduct Policies:

- Anyone caught cheating will receive an “F” for the course and I will also pursue **THE STRONGEST DISCIPLINARY ACTION AVAILABLE AT THE COLLEGE**
- **ONLY** those registered in the class are allowed in the classroom
- **TURN OFF** the sound feature on your cell phone or pager before class begins
- When you turn in your homework assignments **MAKE SURE THE ITEMS BELOW ARE SATISFIED:**
 1. Include your name and class
 2. Include the assignment number and due date
 3. The problems are done in order
 4. The pages are stapled (if it requires more than one page)

The first time these conditions are not satisfied will be a warning. Thereafter any time an assignment is missing the above information will result in points lost

- You are encouraged to work with each other on the homework assignments but each student should turn in their own assignment
- All assignments and exams are to be completed on the assigned date. **THERE WILL BE NO MAKE UP HOMEWORK ASSIGNMENTS, QUIZZES OR EXAMS.** Inform the instructor if you are going to miss a class on a day when an exam or an assignment is due
- You are **ENCOURAGED** to ask questions in class
- Make sure you contact the instructor if you have any questions regarding the class

Tentative Schedule for Math 227
Spring 2008
Butros

Day	Date	Topics
Monday	2/11/2008	Introduction and 5.1
Wednesday	2/13/2008	5.2 – 5.4
Monday	2/18/2008	NO CLASS
Wednesday	2/20/2008	5.5 – 5.7
Monday	2/25/2008	5.8 and Handout 1
Wednesday	2/27/2008	6.1 and Quiz 1
Monday	3/10/2008	6.2 – 6.4
Wednesday	3/12/2008	Review for Exam One
Monday	3/17/2008	EXAM ONE
Wednesday	3/19/2008	8.1 and Handout 2
Monday	3/24/2008	8.2 and Quiz 2
Wednesday	3/26/2008	8.3 – 8.5
Monday	3/31/2008	Review for Exam Two
Wednesday	4/2/2008	EXAM TWO
Monday	4/7/2008	NO CLASS
Wednesday	4/9/2008	NO CLASS
Monday	4/14/2008	8.6 – 8.8
Wednesday	4/16/2008	9.1, 9.2 and Handout 3
Monday	4/21/2008	9.3 and Quiz Three
Wednesday	4/23/2008	9.4 – 9.6
Monday	4/28/2008	Review for Exam Three
Wednesday	4/30/2008	EXAM THREE
Monday	5/5/2008	9.7 – 9.9
Wednesday	5/7/2008	9.10 and Handout 4
Monday	5/12/2008	10.1 and Quiz Four
Wednesday	5/14/2008	10.2 – 10.4
Monday	5/19/2008	Review for Exam Four
Wednesday	5/21/2008	EXAM FOUR
Monday	5/26/2008	10.5, 10.6 and Handout 5
Wednesday	5/28/2008	NO CLASS
Monday	6/2/2008	Review for Final Exam
Wednesday	6/4/2008	FINAL EXAM