

UNIVERSITY OF THE VIRGIN ISLANDS

MATHEMATICS 232 CALCULUS FOR BUSINESS AND SOCIAL SCIENCE MAJORS (4 credits)

COURSE DESCRIPTION:

Students will be introduced to calculus with emphasis on techniques, graphs and applications rather than theory. Topics include functions; limits; continuity and rates of change; the derivative; exponential and logarithmic functions; anti-differentiation; the definite integral; and functions of several variables.

PREREQUISITES:

MAT 140 or 143

REQUIRED MATERIALS:

TEXT: Calculus for Business, Economics, Life Sciences, and Social Sciences (11th edition) by Barnett, Ziegler, and Byleen.

GRAPHING CALCULATOR:

TI-83 or TI-83+ or TI-84+ (highly recommended) or equivalent

BLACKBOARD ACCESS: <http://blackboard.uvi.edu>

OBJECTIVES:

By the end of the course students should be able to successfully:

- Understand an algebraic approach to calculus concepts;
- Apply, interpret and communicate the results of techniques in calculus;
- Use technology, when appropriate, to analyze graphs and data.

COURSE POLICIES:

1. Students who attend regularly tend to do better in the course. Therefore, students are advised and expected to attend all classes. Please note that **YOU** are held responsible for all materials covered and all announcements made in class or posted on Blackboard. A participation grade will depend in part on your presence.
2. Cheating will **not** be tolerated. See pp. 57-59 of the UVI catalog for University policy on Academic Integrity.
3. Cell phones should be turned off prior to the start of class.

HOMEWORK:

- Homework will usually be assigned and posted on Blackboard, collected and given a grade. Late homework will be penalized.
- Homework assignments will be the basis for exam and quiz questions.

- Doing the homework well will be the best preparation for exams and will contribute up to 17% of your grade.

QUIZZES:

- Quiz problems will reflect the type and difficulty level of the homework problems.
- Up to eight quizzes will be administered. Details for each quiz will be given in class. Each quiz is worth 10-25 points.
- Quizzes will normally be given at the beginning of a class. No quiz can be made up.
- Any take-home quizzes assigned must be done without any collaboration except with the instructor.

GROUP ACTIVITIES:

- There will be up to 3 group activities assigned throughout the semester.
- Each activity is worth up to 10 points, for a maximum of 30 points.
- The group activities serve to emphasize the concepts presented in the previous chapter.

IN-CLASS EXAMS:

- Four in-class exams will be administered during the semester.
- These exams will constitute 44% of your grade.
- If the lowest in-class exam score is lower (in percentage) than the final exam score, that low exam score will be replaced by the final exam score (scaled to match the in-class exam).
- No make-up exams. One missed exam can count as the “lowest” described above. Any other missed exams will count as a zero unless the absence is appropriately documented.

FINAL EXAM:

- A comprehensive final exam worth 120 points will be administered.
- The final exam **cannot** be made up. It is scheduled for **Wednesday, May 6, 2009, from 10:15 am to 12:15 pm.**

GRADING:

A summary of the grading scheme for this course is given in the table below.

Source	Points each	Total points	Percent of course
Quizzes (8)	10-25	200	27%
In-class exams (4)	80	270	36%
Group activities, homework, and participation	5-10	160	21%
Final exam (1)	120	120	16%
Total points possible		750	100%

The University scoring schedule for course grades is the following:

A	93% - 100%	C	73% - 76%
A -	90% - 92%	C -	70% - 72%
B+	87% - 89%	D+	67% - 69%
B	83% - 86%	D	60% - 66%
B -	80% - 82%	F	0% - 59%
C+	77% - 79%		

The final % will be determined by dividing the total points earned by the total points possible (750).

PACING SCHEDULE

Weeks	Sections to be covered	Topics to be covered
1	1.1 to 1.4	Elementary Functions: Linear, quadratic, absolute value
2	2.1	Polynomial, rational functions, Exam 1
3,4	3.1 to 3.3	Limits, continuity, and the derivative, Exam 2
5,6	3.4 to 3.7	Product, Quotient, and Chain Rule; Marginal Analysis, Exam 3
7-9	4.1 to 4.4	Graph sketching and Optimization, Exam 4
10, 11	5.1 to 5.5	Derivatives of Exponential and Logarithmic Functions
12	6.1 to 6.4	Integration
13	6.5 to 7.1	Area Under a Curve
14	Review for final exam	