

Linfield College Syllabus

Department: Continuing Education (DCE)

Course Number: MAT 152

Course Title: Finite Mathematics & Calculus

Credits: Three (3) Credits

Instructor: M. Malek Daaboul

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Term: Spring 2008

Dates/Times: Monday: 2/16 - 5/29, 6 - 9:30; Peterson 108

Department Approval: _____

I. Course Description:

This course consists of differential calculus (Chapters 9 - 11). Emphasis is given to the uses of calculus as a problem-solving tool. Special effort will be made to present the basic concepts in an intuitive fashion, and examples and problems have been chosen from a broad spectrum of management applications.

Chapter 9 introduces the derivative, covers the limit properties essential to understanding the definition of the derivative, develops the rules of differentiation (including the chain rule for power forms), and introduces applications of derivatives in business and economics. Chapter 10 focuses on graphing and optimization. Continuity and first derivative and second derivative graph properties are covered while emphasizing polynomial graphing. Also Rational function graphing is covered.

Optimization is covered including examples and problems involving end-point solutions.

Chapter 11 extends the derivative concepts discussed in chapters 9 & 10 to exponential and logarithmic functions (including the general form of the chain rule). Implicit differentiation is covered and applied to related rate problems.

II. Prerequisites, Helpful Knowledge and Skills:

The student should have a sound knowledge of Intermediate Algebra. The only prerequisite is Intermediate Algebra for College Students, (MAT 115), or equivalent.

III. Learning Objectives/Outcomes:

After completing this course the student should have the knowledge of the concepts and applications of differential calculus. The objectives are to present calculus to college students of business, management, economics, life science and social science to use in problem solving and decision making in their disciplines. So, emphasis is directed specifically toward applications in business, management, economics, life sciences and social sciences.

IV. Methodology:

The mode of delivery for learning are lectures, homework assignments, and three examinations. Class discussion of calculus concepts and interactive dialogue among students and the instructor is expected/encouraged to ensure clear understanding of calculus concepts and its applications to problem-solving and decision making.

V. Resources:

Text: College Mathematics For Business, Economics, Life Sciences, and Social Sciences, 11th Ed.

By: Raymond Barnett, Michael Ziegler, and Karl Byleen.

ISBN: 0-13-157225-3, Pearson/Prentice Hall.

VI. Evaluation & Grading:

The student's learning is evaluated continuously through class interactions, assignments, and two Exams. The course grade is based on the student performance on the two exams. and class participation.

Exam I:	30%
Exam II:	30%
Exam III	30%
Class Participation:	10%

Grading scale:

How points and percentages equate to grades

100-	A	76-73	C
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95			
94-90	A-	72-70	C-
89-87	B+	69-67	D+
86-83	B	66-63	D
82-80	B-	62-60	D-
79-77	C+	59 or <	F

VII. COURSE POLICIES

Incompletes: A grade of Incomplete (I) is given only in emergency situations. The student must request an Incomplete in writing and must obtain my permission. All uncompleted work must be completed within the time limits I set. If you simply don't turn in the final assignments or the final exam, your course grade will be calculated with the missed portion counting for 0 points.

Academic honesty: Cheating and plagiarism will not be tolerated. Any student found to be engaging in either of these activities at any point in the course will receive a failing grade for the assignment and/or entire course and may be subject to further college sanctions.

Rules of Discussion: The classroom should be a safe haven within which individuals can discuss the widest possible range of topics without fearing retribution, ridicule, or attack. In order for this to happen, we must assume that we are all persons of intelligence and good will who may ultimately disagree, sometimes to a profound degree, with one another but whose characters are not impugned or intelligence disparaged because of this disagreement. The classroom is not a forum for proselytizing, nor it is a soapbox for diatribes by either students or faculty. For the academic endeavor to succeed, we must treat each other with civility, courtesy, and respect. All perspectives and questions are welcome, as long as they are impelled by a genuine desire for knowledge, can be articulated thoughtfully, and supported by sound reasoning.

Students with disabilities: Students with documented disabilities who may need accommodations, who have any emergency medical information the instructor should know of, or who need special arrangements in the event of evacuation, should make an appointment with the instructor as early as possible, no later than the first week of the term.

VIII. Course Outline:

Week 01 - 05:

1. The Derivative Chapter 9

Exam I (two hours, 100 points), Chapter 9. 30% of grade.

Week 06 - 09 :

2. Graphing and Optimization Chapter 10

Exam II (two hours, 100 points), Chapter 1030% of grade

Week 10 - 15:

3. Additional Derivatives Topics Chapter 11

Exam III (two hours, 100 points), Chapter 1130% of grade

CLASS PARTICIPATION of grade 10% of grade

IX. Biography:

About the Instructor: Malek Daaboul has a broad industrial background with a record of contribution in marketing, sales, customer support, engineering, manufacturing, information technology, and business management. Strong planning and management skills complemented with a thorough technical and analytical background. Worked at Owens Illinois in Toledo, Ohio for about nine years in different capacities: Manufacturing Engineer, Senior Operations Research Analyst, and Systems Software & Technical Supervisor. He then worked for Tektronix in Beaverton, Oregon for about Six years as Technical Services Manager before joining Sequent Inc. in Beaverton, Oregon for about four years as Computer Resources Group Manager and Later as Rightsizing Marketing Manager. Then He worked for IBM Global Services in Portland, Oregon for about four years as a Senior Business Management Consultant/Solutions Manager and for Oracle Corporation in Portland, Oregon for about two years as Consulting Services Practice Manager. Responsibilities at IBM and Oracle included business development in Oregon, marketing, and selling consulting services as well as overall management of consulting engagements and executive relationships. Malek has been teaching undergraduate and graduate (MBA) courses since 1974. Courses taught include Strategic Marketing Management, Industrial Marketing, Services Marketing, International Marketing, Management Decisions Making,