

Course Syllabus

Department : Mathematics
Course Title : Calculus I
Section Name : MATH_2413_5135
Start Date : 01/18/2011
End Date : 05/13/2011
Modality : FACE-TO-FACE
Credits : 4

Instructor Information

Name : Charles Sweatt
OC Email : csweatt@odessa.edu
OC Phone # : (432) 335-6634

Course Description

MATH 2413 Calculus I (27.0101.5919) (4-0) 4 hours. Presents a study of rate of change of functions, limits, derivatives of algebraic and trigonometric functions, integration and applications. The student will learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing, planning and problem solving. The student should be able to probe for mathematical meaning and, perhaps, describe these meanings to others.

Prerequisites/Co-requisites

Prerequisite: MATH 2412 passed with a C or better.

SCANS: 3, 8, 9, 11

Course Objectives

After completing this course, the student should be able to demonstrate competency:

- 1.0 Limits and continuity
- 2.0 The derivative
- 3.0 Applications of the derivative
- 4.0 Integrals
- 5.0 Logarithmic, Exponential, and Other Transcendental Functions

Course Content

Chapters 1 -- 5 in the textbook.

Attendance

Attendance is factored into your term grade. Attendance will be taken during each class period, You can earn up to 6 bonus points for perfect attendance. The possible 6 point bonus is reduced by 1 point for each hour that you are absent. In order to do well in the class you must attend class regularly.

Homework

Homework problems will be assigned for each class period and the accumulative score on you homework will count as 12% of your grade. The assignments will be assigned at each class and are due at the next class period. It is your responsibility to get the homework assignment if you are absent. No late homework will be accepted in May.

Tests

There will be five tests and a comprehensive Final Exam. If you miss a test, you will be allowed to take a makeup test. The 5 tests will count as 60% of your grade. If you miss a test, you will be allowed to take a makeup. If you take the test and score lower than a 70% grade then you will be allowed to correct the test with a max possible of 70% for the corrected test. The grade that you will get is depends on how well the corrections are presented. There will be no corrections on the final exam and/or makeup tests. You must take the final exam and it will count as 28% of your grade. Tests will be announced at least two class periods before the date of the test. You will not be allowed to use notes on the tests.

Required Readings/Materials

You must purchase the following *required* readings/materials: Text: Calculus by Larson and Edwards, 9th Edition, Belmont: Brooks/Cole, 2010Supplies: Pencil, Paper, Scientific Calculator (does not need to be a graphing *calculator!*)

Course Requirements (Lectures, Assignments/Assessments.

Summary of Assignments & Activities

Item(Name)	Type	Description	Due
Section 1.1	Homework	A Preview of Calculus	TBA
Section 1.2	Homework	Finding Limits Graphically and Numerically	TBA
Section 1.3	Homework	Evaluating Limits Analytically	TBA
Section 1.4	Homework	Continuity and One-Sided Limits	TBA
Section 1.5	Homework	Infinite Limits	TBA
Test 1	Test	Exam over chapter 1	TBA
Section 2.1	Homework	The Derivative and the Tangent Line	TBA
Section 2.2	Homework	Basic Differentiation Rules and Rates of Change	TBA
Section 2.3	Homework	Product & Quotient Rules; Higher Order Derivatives	TBA
Section 2.4	Homework	The Chain Rule	TBA
Section 2.5	Homework	Implicit Differentiation	TBA
Section 2,6	Homework	Related Rates	TBA
Test 2	Test	Exam over Chapter 2	TBA
Section 3.1	Homework	Extrema on an Interval	TBA
Section 3.2	Homework	Rolle's Theorem and Mean Value Theorem	TBA
Section 3.3	Homework	Increasing & Decreasing Functions and the First Derivative Test	TBA
Section 3.4	Homework	Concavity and the Second Derivative	TBA
Section 3.5	Homework	Limits at Infinity	TBA
Section 3.6	Homework	A Summary of Curve Sketching	TBA
Section 3.7	Homework	Optimization Problems	TBA
Section 3.9	Homework	Differentials	TBA
Test 3	Test	Exam over Chapter 3	TBA
Section 4.1	Homework	Antiderivatives and Indefinite Integration	TBA
Section 4.2	Homework	Area	TBA
Section 4.3	Homework	Riemann Sums and Definite Integrals	TBA
Section 4.4	Homework	The Fundamental Theorem of Calculus	TBA
Section 4.5	Homework	Integration by Substitution	TBA
Test 4	Test	Exam over Chapter 4	TBA
Section 5.1	Homework	The Natural Logarithmic Function: Differentiation	TBA
Section 5.2	Homework	The Natural Logarithmic Function: Integration	TBA
Section 5.3	Homework	Inverse Functions	TBA
Section 5.4	Homework	Exponential Functions: Differentiation and Integration	TBA
Section 5.5	Homework	Bases Other than e and Applications	TBA
Section 5.6	Homework	Inverse Trigonometric Functions: Differentiation	TBA
Section 5.7	Homework	Inverse Trigonometric Functions: Integration	TBA
Test 5	Test	Exam over chapter 5	TBA
Final Exam	Exam	Comprehensive Final Exam	12/7/2010

Grading Policy

	Homework and quizzes.	Exams 1-5	Final Exam
Percentage	12%	60% total or 12% each	28%

Percentage term average vs grade

≥ 90	89.99-80	79.99-70	69.99-60	≤ 59.99
A	B	C	D	F

Special Needs

Odessa College complies with Section 504 of the Vocational Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. If you have any special needs or issues pertaining to your access to and participation in this or any other class at Odessa College, please feel free to contact me to discuss your concerns. You may also call the Office of Disability services at 432-335-6861 to request assistance and accommodations.

Learning Resource Center (Library)

The Library, known as the [Learning Resources Center](#), provides research assistance via the [LRC's catalog \(print books, videos, e-books\)](#) and [databases \(journal and magazine articles\)](#). [Research guides](#) covering specific subject areas, [tutorials](#), and the ["Ask a Librarian"](#) service provide additional help.

Student E-mail

Please access your [Odessa College Student E-mail](#), by following the link to either set up or update your account: <http://www.odessa.edu/gmail/>. **All assignments or correspondence will be submitted using your Odessa College email.**

Student Portal

Please access your [Odessa College Student Handbook](#)

Technical Support

For Blackboard username and password help and for help accessing your online course availability and student email account contact the Student Success Center at 432-335-6878 or online at https://www.odessa.edu/dept/ssc/helpdesk_form.htm.

Important School Policies

For information regarding student support services, academic dishonesty, disciplinary actions, special accommodations, or student's and instructors' right to academic freedom can be found in the [Odessa College Student Handbook](#).