



The University
of Vermont

Math 020

Fundamentals of Calculus II

TWR, 1:00-3:30pm, TERRILL-HOME EC 108

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Office Hours: M (1:00pm - 2:30pm), W (3:30 - 5:00pm)

This syllabus is subject to change as the course progresses

Course Description: Fundamentals of Calculus II is the second course in a two course sequence. The underlying applications of integral calculus will be investigated along with some methods for doing multivariable calculus (chapters 7 - 13 of the textbook). The topics will include, but not be limited to, basic integration, substitution, integration by parts, improper integrals, various topics of integration including probability density functions and differential equations, and multivariable functions with multivariable calculus. If time permits, we will also investigate a few topics related to sequences and series. The understanding will be discovered and shown via mathematical modeling of real world situations. An emphasis will be made to understand these new concepts graphically, numerically, verbally, and algebraically.

Prerequisite(s): MATH 019.

Text(s): MyMathLab access (which includes the e-book) for *Calculus with Applications* 10th ed.

Author(s): Lial, Greenwell, & Ritchey; **ISBN-13:** 978-0000000000

Grade Distribution:

Homework & Quizzes	45%
Participation	5%
Exams (2)	30%
Final Exam	20%

Letter Grade Distribution:

93 - 100	A+		
92 - 97	A	72 - 77	C
90 - 91	A-	70.00 - 71	C-
88 - 89	B+	68 - 69	D+
82 - 87	B	62 - 67	D
80 - 81	B-	60 - 61	D-
78 - 79	C+	<= 59.99	F

Course Policies:

- **General**

- Quizzes and exams are closed book, closed notes.
- **No makeup quizzes or exams will be given.**

- **Labs and Assignments**

- Discussion amongst students is encouraged, but when in doubt, direct your questions to the professor, tutor, or lab assistant.
- **Offering and accepting** solutions from others is an act of **plagiarism**, which is a serious offense and **all involved parties will be penalized according to the Academic Honesty Policy**.
- **No late assignments will be accepted under any circumstances.**

- **Attendance and Absences**

- Students are responsible for all missed work, regardless of the reason for absence. It is also the absentee's responsibility to get all missing notes or materials.

Academic Honesty Policy Summary:

Introduction

In addition to skills and knowledge, University of Vermont aims to teach students appropriate Ethical and Professional Standards of Conduct. The Academic Honesty Policy exists to inform students and Faculty of their obligations in upholding the highest standards of professional and ethical integrity. All student work is subject to the Academic Honesty Policy. Professional and Academic practice provides guidance about how to properly cite, reference, and attribute the intellectual property of others. Any attempt to deceive a faculty member or to help another student to do so will be considered a violation of this standard.

Instructor's Intended Purpose

The student's work must match the instructor's intended purpose for an assignment. While the instructor will establish the intent of an assignment, each student must clarify outstanding questions of that intent for a given assignment.

Unauthorized/Excessive Assistance

The student may not give or get any unauthorized or excessive assistance in the preparation of any work.

Authorship

The student must clearly establish authorship of a work. Referenced work must be clearly documented, cited, and attributed, regardless of media or distribution. Even in the case of work licensed as public domain or Copyleft, (See: <http://creativecommons.org/>) the student must provide attribution of that work in order to uphold the standards of intent and authorship.

Declaration

Online submission of, or placing one's name on an exam, assignment, or any course document is a statement of academic honor that the student has not received or given inappropriate assistance in completing it and that the student has complied with the Academic Honesty Policy in that work.

Consequences

An instructor may impose a sanction on the student that varies depending upon the instructor's evaluation of the nature and gravity of the offense. Possible sanctions include but are not limited to, the following: (1) Require the student to redo the assignment; (2) Require the student to

complete another assignment; (3) Assign a grade of zero to the assignment; (4) Assign a final grade of “F” for the course. A student may appeal these decisions according to the Academic Grievance Procedure. (See the relevant section in the Student Handbook.) Multiple violations of this policy will result in a referral to the Conduct Review Board for possible additional sanctions.

The full text of the Academic Honesty Policy is in the *Student Handbook*.

Tentative Course Outline:

The weekly coverage might change as it depends on the progress of the class.

A short Quiz (1-2 questions) will be given each class, on the previous class material.

Week	Content
Week 1 (2016-05-24)	<ul style="list-style-type: none">• Anti-derivatives, substitution, and the definite Integral (7.1 - 7.3)• HW: To be announced
Week 2 (2016-05-31)	<ul style="list-style-type: none">• The Fundamental Theorem of Calculus, Numerical integration, and Integration by parts (7.4 - 8.1)• HW: To be announced
Week 3 (2016-06-07)	<ul style="list-style-type: none">• Volume and average value, Improper integrals, and the solution of separable differential equations (8.2, 8.4, 10.1)• <i>Exam I</i>• HW: To be announced
Week 4 (2016-06-14)	<ul style="list-style-type: none">• Probability models and Functions of several variables (11.1, 11.2, 9.1)• HW: To be announced
Week 5 (2016-06-21)	<ul style="list-style-type: none">• Partial derivatives, maxima and minima, Double Integrals (9.2, 9.3, 9.6)• <i>Exam II</i>• HW: To be announced
Week 6 (2016-06-28)	<ul style="list-style-type: none">• Infinite Series and Taylor polynomials (12.3 - 12.4)• <i>Final</i>• HW: To be announced