

Campbellsville University
MTH 211-01
Calculus II

MEETING PLACE: CH 109
MEETING TIMES: MTWF 8-8:50
TEXTBOOK: Calculus 10th ed. by Anton, Bivens, Davis

INSTRUCTOR: Chris Bullock
OFFICE: CH 314
OFFICE PHONE: 789-5243
E-MAIL: ctbullock@campbellsville.edu
OFFICE HOURS: MWF 11-12 and 1-2, TR 11-12:15 or by appointment

1. DESCRIPTION OF COURSE: This course affords further study in differentiation and integration of logarithmic, exponential, and other transcendental functions. The following topics are also emphasized: techniques of integration, indeterminate forms, improper integrals, Taylor's formula, infinite series, analytic geometry, and a historical perspective of Calculus. A grade of "C" or better is required to advance to MTH 310. Prerequisite: "C" or better in MTH 210.
2. COURSE OBJECTIVES: Students in this course are expected to obtain a working knowledge of modern calculus. As a result, students in this course should gain confidence and experience in mathematics. Also, students should gain an understanding of the usefulness of calculus of single-variable functions in many areas of life. Topics to be covered include applications of integration, techniques of integration, sequences and series, Taylor and Maclaurin series.

2. COURSE OUTLINE: Topics to be covered include:

Definition of Area as a Limit, Sigma Notation
The Fundamental Theorem of Calculus
Rectilinear Motion using Integration
Evaluating Definite Integrals using Substitution
Logarithmic Functions defined by Integrals
Area Between Two Curves
Volumes of Solids of Revolution by Disk, Washer, Shell Methods
Arc Length of Curves
Area of Surface of Revolution
Work
Moments, Center of Gravity
Fluid Pressure and Force
Integration by Parts
Integration of Trigonometric Functions
Trigonometric Substitutions
Partial Fractions Decomposition

Improper Integrals
Sequences
Infinite Series
Convergence Tests (Comparison, Ratio, Root)
Alternate Series
Maclaurin and Taylor Polynomials and Series
Power Series

Topics may be added or excluded as time permits.

4. **EVALUATION:** There will be a total of five tests including a final exam. Each test will be worth 100 points. Also, there will be a homework grade worth 100 points. Thus, there will be a total of 600 attainable points in this class. The grading scale will be the usual grading scale:

90-100% A
80-89% B
70-79% C
60-69% D
0-59% F

Homework will be assigned and graded after almost every class meeting. Each homework assignment will consist of a variable number of questions. Each homework problem will be graded as follows: 2 points for a correct solution, 1 point for a partially correct solution, 0 points for no effort or a completely incorrect solution. The percentage of earned points out of the total points will be recorded for each assignment. At the end of the semester, these homework grades will be averaged to get the final 100-point homework grade. This grade will then be averaged with the five test grades to obtain the final grade for the class.

5. **REQUIREMENTS:** The tentative dates for the exams are as follows:

Exam #1: Feb 9
Exam #2: Mar 1
Exam #3: Mar 29
Exam #4: Apr 19
Final: May 9 from 8-9:30

6. **ATTENDANCE:** Campbellsville University has an attendance policy which states that a student who misses two weeks worth of a class (for any reason) receives a warning. Thus, any student missing 8 class periods in this class will receive a warning. Any student who misses four weeks worth of a class (for any reason) is automatically withdrawn from the class with a failing grade. Thus, any student missing 16 class periods in this class will be withdrawn from the class. PLEASE NOTE THAT, BY THIS POLICY, ANY ABSENCE COUNTS, WHETHER EXCUSED OR UNEXCUSED.

Attendance will be recorded by me every class period at the beginning of class. If you are late for class, you may be counted as absent. It is your

responsibility to notify me at the end of class if you think this may have occurred.

You must notify me in advance if you are going to miss a test. You may contact me by phone or by e-mail. Make-up exams are possible if I am notified in advance and if I think the excuse is reasonable.

7. **CALCULATORS:** Only scientific calculators will be permitted for use on exams. Graphing calculators, cell phones, and other forms of technology are strictly prohibited. It is your responsibility to make sure that you have an acceptable scientific calculator for each exam. Calculators may not be shared under any circumstances.
8. **DISABILITIES:** Campbellsville University is committed to reasonable accommodations for students who have documented physical and learning disabilities, as well as medical and emotional conditions. If you have a documented disability or condition of this nature, you may be eligible for disability services. Documentation must be from a licensed professional and current in terms of assessment. Please contact the Coordinator of Disability Services at 270-789-5192 to inquire about services.
9. **ADDITIONAL SOURCES:**
Calculus 7th ed. By Anton, Bivens, Davis
Applied Calculus 9th ed. by Hoffman and Bradley
10. **EMERGENCY PHONE NUMBERS:**
Security Cell Phone: 270-403-3611
11. **TITLE IX STATEMENT:**

Campbellsville University and its faculty are committed to assuring a safe and productive educational environment for all students. In order to meet this commitment and to comply with Title IX of the Education Amendments of 1972 and guidance from the Office for Civil Rights, the University requires all responsible employees, which includes faculty members, to report incidents of sexual misconduct shared by students to the University's Title IX Coordinator.

Title IX Coordinator:

Terry VanMeter
1 University Drive
UPO Box 944
Administration Office 8A
Phone – 270-789-5016
Email – twvanmeter@campbellsville.edu

Information regarding the reporting of sexual violence and the resources that are available to victims of sexual violence is set forth at: www.campbellsville.edu/titleIX