

Calculus for the Management, Life, and Social Sciences
Fall 2018

MATH 151.01 (4 credits), MTu_ThF, 11:00A-11:50A, Wickersham 219

Prerequisites: Mathematics placement (MPT 151) or a grade of C– (C-minus) or better in MATH 101 *College Algebra* are the prerequisites for this course.

Instructor: Dr. Buchanan

Office: Wickersham 217-1, Phone: 871-7305, FAX: 871-7948

Office Hours: 10:00A-10:50A (M_W_F), 02:00-02:50P (Tu_Th), or by appointment

Email: Robert.Buchanan@millersville.edu

Textbook: The WebAssign access code will provide students with access to the e-book:

Brief Calculus: An Applied Approach, 8th edition, Ron Larson, Cengage Learning, Boston, MA (2007) ISBN: 978-1285858500.

Objectives: MATH 151 is an introductory calculus course requiring a background in college algebra. Students will use their skills in elementary algebra together with a graphing calculator (The Department of Mathematics recommends a TI-83 or TI-84. The TI models 89 and 92 may **not** be used on graded assignments.). Throughout this course and semester the instructor plans:

- to introduce the Cartesian (two-dimensional, rectangular) plane and methods for determining distance between points, determining slopes of lines, and drawing graphs of equations and functions,
- to explore graphical, numerical, and algebraic methods for evaluating limits of functions,
- to introduce the process of differentiation and the concept of the derivative, together with applications of the derivative to problems involving the business, economics, the life and social sciences,
- to introduce the exponential and logarithmic functions, their properties, and apply them to problems from the arenas of business, finance, and the life sciences,
- to introduce the processes of anti-differentiation and integration, the concepts of the indefinite and definite integral, and techniques for evaluating integrals, and
- to apply the definite integral to problems drawn from the fields of business, economics, and the social sciences.

Course Contents: The sections of the textbook to be covered this semester will include:

Chapter 1: Functions, Graphs, and Limits

Chapter 2: Differentiation

Chapter 3: Applications of the Derivative

Chapter 4: Exponential and Logarithmic Functions

Chapter 5: Integration and its Applications

Chapter 6: Techniques of Integration

Attendance: Students are expected to attend all class meetings. If you must be absent from class on the day an assignment is due, you must complete and hand in the assignment prior to the absence. If you know you will be absent on the day of a test, you must notify me before the time the test is scheduled in order to schedule a make-up test. Students who miss a test should provide a valid excuse, otherwise you will not be allowed to make up the test. There are no final exam exemptions.

Merely attending class will not earn you a passing grade. Regular class attendance (see [Class Attendance Policy](#)) includes being on time to class and actively engaging and participating in classroom activities. It does not include texting, listening to music, watching videos, browsing the internet, playing video games, checking email, *etc.* Students engaging in these types of activities may be asked to leave the classroom and/or be counted absent for the class meeting. Do not expect a warning or announcement before these sanctions.

Homework: Students are expected to do their homework and participate in class. Students should expect to spend a minimum of three hours outside of class on homework and review for every hour spent in class. Homework problems from the textbook (or e-book) will be assigned nearly every class meeting. You should work all of these problems neatly and keep them organized for use when studying for tests and the final examination since the test and final examination problems will be similar in wording and difficulty to the exercises in the textbook. The homework will be submitted through the on-line homework system known as *WebAssign*. You will receive a 10% bonus for completing an assignment 24 hours before the due date.

Follow the Student Registration Instructions given to you and use the Class Key: millersville 1519 8075.

Tests: There will be three 50-minute in-class tests and a 2-hour comprehensive final examination. The tests are tentatively scheduled for

- Thursday, September 20, 2018
- Friday, October 19, 2018
- Tuesday, November 20, 2018

Missed tests must be made up as soon as possible, preferably within one week of the originally scheduled test date.

The comprehensive final examination is scheduled for Friday, December 14, 2018 from 08:00AM–10:00AM.

Grades: Course grade will be calculated as follows.

Tests	55%
Exam	20%
Homework	25%

Tests and the final examination will be graded individually on a 100-point scale. Graded homework assignments may consist of a variable number of problems worth ten points each. I keep a record of students' test, homework, and exam scores. Students should also keep a record of graded assignments, tests, and other materials. The course letter grades will be calculated as follows. I will not "curve" course grades.

90-92	A-	93-100	A		
80-82	B-	83-86	B	87-89	B+
70-72	C-	73-76	C	77-79	C+
60-62	D-	63-66	D	67-69	D+
		0-59	F		

Course Repeat Policy An undergraduate student may not take an undergraduate course of record more than three times. A course of record is defined as a course in which a student receives a grade of A, B, C, D, (including + and -) F, U, Z or W. The academic department offering a course may drop a student from a course if the student attempts to take a course more than three times.¹

The last day to withdraw from a course (and receive the W grade) is Friday, November 2, 2018 (signed withdrawal card must be presented to the Registrar's Office by 04:30P).

Inclement Weather Policy: If we should miss a class day due to a school [delay](#) or [cancellation](#), any activities planned for that missed day will take place the next time the class meets. For example, if a test is scheduled for a day that class is canceled on account of snow, the test will be given the next time the class meets.

Cell Phones: Silence (or better yet, turn off) all cellular telephones upon entering the classroom. Leaving class to initiate or receive a telephone call will not be tolerated and students doing so will not be re-admitted to the classroom until the following class meeting. Texting or tweeting during class interferes with the learning process. Students distracted by their cell phones are not engaged in class and will find, over the course of the semester, that learning and course grade will suffer.

Title IX Reporting Responsibilities: Millersville University and its faculty are committed to assuring a safe and productive educational environment for all students. In order

¹Memorandum to mathematics faculty from Dr. Charles G. Denlinger, Assistant Chair, Department of Mathematics, August 30, 2004.

to meet this commitment and to comply with Title IX of the Education Amendments of 1972, 20 U.S.C. §1681, *et seq.*, and act in accordance with guidance from the Office for Civil Rights, the University requires faculty members to report incidents of sexual violence shared by students to the University's Title IX Coordinator. The only exceptions to the faculty member's reporting obligation are when incidents of sexual violence are communicated by a student during a classroom discussion, in a writing assignment for a class, or as part of a University-approved research project. Faculty members are obligated to report sexual violence or any other abuse of a student who was, or is, a child (a person under 18 years of age) when the abuse allegedly occurred to the person designated in the University protection of minors policy.

Information regarding the reporting of sexual violence, and the resources that are available to victims of sexual violence, is available at <http://www.millersville.edu/socialq/title-ix-sexual-misconduct/index.php>.