

Summer Session I 2015
Math 155 APPLIED CALCULUS
Syllabus

Instructor: Maria Barouti

Time: MTuTh 9:00 – 11:05 p.m. in MP 106

Discussions: MP 106 MTh – 11:15 – 12:15 p.m. TA: Ahmad Mousavi

Office: MP 201 **Phone:** 410-455-2412(Math. Office)

Office hours: T 11:30 – 1:30 p.m, or by appointment

E-mail: bmaria2@umbc.edu

Pre-requisite: Math 106 with a C or better, or appropriate score on placement test.

Course Textbook: **Applied Calculus for the Managerial, Life, and Social Sciences, by Tan, 10th Edition (eBook).** WebAssign, an online homework program is required for this course. WebAssign includes the e-book. You should be able to access Webassign through Bb.

Chapters to be covered:

2.1-2.6, 3.1-3.5, 4.1-4.5, 5.1-5.6, 6.1-6.5.

NO CALCULATORS MAY BE USED IN THE LECTURE PORTION OF THIS COURSE.

Course Description: Basic ideas of differential and integral calculus, with emphasis on elementary techniques of differentiation and integration with applications, are treated in this course. Technology will be utilized to enhance understanding of the concepts and their applications. Not recommended for students majoring in mathematics, computer science, engineering, or physical sciences. Note: Credit will not be given for both MATH 151 and 155. Prerequisite: Math 106 or a qualifying score on the mathematics placement test.

Objectives

- To attain a fundamental and intuitive understanding of differentiation and integration.
- Be able to calculate and interpret derivatives and integrals.
- Relate differentiation and integration to several application areas and their functional models.
- Apply technology to visualize, to calculate, and to interpret solutions to general and application problems.

Grading Policy

	Points
Exam	100
5 Quizzes (Discussion)	120 (Drop 1--Quiz 0 is non droppable)
1 Project	80
Homeworks	100 (Drop 2)
Final	200
Total	600

Blackboard will be used to post grades. It is expected that you keep up with your grade throughout the semester, and alert the professor to any questions or concerns as soon as possible. Be aware that Blackboard may not calculate your grades completely, so you should verify your grade by calculating it directly.

Grade	Range	Point range
A	90-100%	540-600
B	80-89%	480-539
C	70-79%	420-479
D	60-69%%	360-419
F	below 59%	0-359

Academic Honesty: By enrolling in this course, each student is responsible for taking active part in the class discussions and follows the highest standards of honesty. Cheating, plagiarism and helping others to commit these acts are all forms of Academic dishonesty. These misconducts could result in disciplinary action. Please refer to the Student Handbook regarding Academic Conduct Policy. If a person is caught taking part in any of the above mentioned acts during a quiz or test, zero points will be awarded for that quiz or test. Cheating will not be tolerated; all work must always be your own. Avoid anything that could lend an appearance of cheating. Make sure you use the restroom before quizzes and exams, as you will not be allowed to leave the classroom during any quiz or exam. Never use any unapproved device during a quiz or exam.

Homework via Web Assign

We will be using Enhanced Web Assign (EWA) for homework in this course. This service requires a one-time fee. For easy access we have linked to EWA through Blackboard (under Tools on the left panel). This avoids additional login requirements. With EWA you will get immediate feedback on your answers as well as multiple opportunities to attempt homework questions. The questions will be those from the textbook with occasional number modifications. I encourage you to work out the problems prior to sitting down at the computer to enter your answers. Writing out your solutions is also critical if you would like feedback from your TA or me.

Completing your homework is essential to success in this course. Because you get multiple attempts at the homework and it is readily accessible, you should get an A for your homework average.

Quiz Zero

Quiz 0 is a MANDATORY, proctored by the TA. Quiz 0 covers the pre requisite material, namely Math 106 concepts (Chapter 0). This Quiz 0 is on a first come, first served basis. You will be able to finish the quiz in 45 minutes during your first discussion (MP 106). Don't forget to bring your own laptop, scratch papers and pencils. Take this quiz 0 seriously since it is counted towards your final grade.

Quiz 0 is counted as your first quiz. Since quiz 0 covers the material from Algebra I and II, please do review these concepts before taking it. Getting atleast 70% in quiz 0 is a good indicator for a solid foundation in the algebra concepts. You will be given an opportunity to improve your quiz 0 score if the score is not that good. You have to go to the MATH GYM to work on worksheets pertaining to the problems you missed in quiz 0. You will be receiving an email from the Math Gym coordinator regarding this. There is a window of about 2 week time to complete the worksheets to improve your quiz 0 score.

THIS QUIZ IS MANDATORY!

THIS QUIZ COUNTS TOWARD YOUR FINAL GRADE. Make every effort to do well.

THIS IS A NON-DROPPABLE QUIZ! However, you will be given an opportunity to improve your Q0 grade.

Make-up Policy: CAUTION!

NO MAKE UP QUIZZES, NO LATE PROJECTS, NO LATE HOMEWORKS WILL BE ACCEPTED.

MAKE-UP EXAMS WILL BE ADMINISTERED UNDER EXTREME CIRCUMSTANCES AND WILL BE DIFFERENT THAN THE ORIGINAL TEST.

Exams

Two (2) in-class exams will be given during this course. Make-up exams will only be given in case of documented emergencies. Exams are always closed-book and closed-notes.

Exam dates:

- Exam : Tuesday June 16th
- Final: Tuesday July 2nd

Projects, Discussion sessions, and Participation

Discussion sessions are mandatory. Your discussion session will be led by teaching assistants who are in close contact with your professor throughout the semester. These sessions are smaller than your lecture, so you have an opportunity to explore concepts and ask questions in a smaller group. Quizzes will be given in discussion.

There is one Excel lab due throughout the 6 week course. Each lab is designed to reinforce course material using Excel to plot functions and examine calculus concepts. Read the guidelines for lab submission carefully, and then read over the requirements for the labs. Read the labs very carefully. Most students lose points on labs simply because they did not follow directions.

Active participation is required in discussion sessions.

Course Help/How to earn an “A”

- Attend all classes
- Reading the textbook
- Working the examples
- Trying the problems
- Talking to a classmate about course material
- Visiting my office and your TA
- Going over/rewriting class notes

Learning Goals: The learning plan divides activities in three parts -- before, during, and after class --, which apply to every covered section of the textbook:

- Before class:
 - Study the section in the textbook, and taking into account any announcements in class, in blackboard, or by e-mail specifically for this section. .

Before you arrive in class, you should have an overview of the material in the section, have read and/or seen several examples for its use, and be ready to attempt the homework problems under the guidance of the instructor.

- During class:
 - Follow the lecture which highlights the material and puts it into context.
 - Participate actively in class and try to work out problems at the end of class.

By the end of class, you should have obtained answers to your questions and have an idea of how to approach the homework.

- After class:
 - Work all assigned homework problems. It may be helpful to re-view some of the worked examples in class at this point.
 - If questions arise, review the textbook, notes from class, and examples in textbook

With the shift of work towards preparing more intensively for class as opposed to seeing material for the first time in class, the activities after class should consist mainly of putting all the pieces together. Moreover, the tightly spaced and integrated

work before, during, and after class should make the preparation for the tests short and effective.

Quizzes	Dates
Quiz 1	06/04
Quiz 2	06/11
Quiz 3	06/22
Quiz 4	06/29