



## Course Syllabus

**Course:** MAT212 (Brief Calculus) **Semester:** Spring 2015  
**Section:** 29534  
**Day(s):** TTh **Time:** 10:30AM – 11:45AM **Location:** SL 114  
**Meeting Dates:** January 20 – May 15

### INSTRUCTOR

**Name:** Christopher P. Benton, Ph.D. **Office Location:** CM-422  
**Phone:** (480) 423-6248 **Email:** docbenton@docbenton.com  
**Office:** See **Web:** [www.docbenton.com](http://www.docbenton.com)  
**Hours:** [www.docbenton.com/schedule.pdf](http://www.docbenton.com/schedule.pdf) **Page:**  
**Special Notes:** Information in this syllabus is subject to change at the discretion of the instructor in order to meet the particular needs of this class.

### TEXT & SUPPLIES

**Title:** Finite Mathematics and Applied Calculus **Author:** Waner/Costenoble  
6<sup>th</sup> edition  
**Publisher:** Brooks/Cole  
**Other materials required:** TI-83/84 Calculator (no calculators with computer algebra systems allowed)  
**Textbooks can be purchased at the Campus Bookstore or online at** [www.foollett.com](http://www.foollett.com)

### COURSE DESCRIPTION

Introduction to the theory, techniques and applications of the differential and integral calculus of functions with problems related to business, life, and the social sciences. Note: Students may receive credit for only one of the following: MAT212 or MAT213. Prerequisites: Grade of "C" or better in MAT150, or MAT151, or MAT152, or MAT187, or appropriate Math placement test score

PLEASE NOTE: A TI-83 or TI-84 graphing calculator is required for homework and exams.

## COURSE OUTLINE

The following chapters and sections will be covered in this course:

1. Functions and Linear Models  
1.3
9. Nonlinear Functions and Models  
*logistic functions*
10. Introduction to the Derivative  
10.1, *continuity*, 10.3, 10.4, 10.5, 10.6
11. Techniques of Differentiation with Applications  
11.1, 11.2, 11.3, 11.4, 11.5, 11.6
12. Further Applications of the Derivative  
*relative extrema, absolute extrema, 12.2, 12.3, concavity and inflection points, 12.5*
13. The Integral  
13.1, 13.2, 13.3, 13.4
14. Further Integration Techniques and Applications of the Integral  
*14.2, improper integrals, integration by parts*

## COURSE COMPETENCIES/OBJECTIVES

1. Find derivatives of functions using both the definition and theorems.
2. Use the derivative to solve and analyze application problems related to business, life, and the social sciences.
3. Use technology to model, solve, and analyze problems related to real-world applications.
4. Find the integral of functions using theorems.
5. Use the integral to solve and analyze application problems related to business, life, and the social sciences. cs.

## COURSE REQUIREMENTS

- Attendance – Excessive absences can result in withdrawal from the course.
- Preparation – Students are expected to read each section prior to its being covered in class.
- Participation – Active participation is essential. Students should participate in class and ask questions over problems and material they do not understand.
- Homework – Students should complete assignments before the next class.
- Exams – In general, exam problems will come from the homework.

## ATTENDANCE

- Attendance is required and essential to achieve course objectives. Active participation in class is an important component of your grade.
- If you accumulate **four absences** you may be **withdrawn** from the course. However, if you want to withdraw from this or any other course, do not quit coming to class and assume that you will be withdrawn automatically. That may not happen. It is your responsibility to submit a formal drop form if you want to withdraw.
- Official absences (field trips, tournaments) and religious holidays shall not count among the total number of absences allowed. However, students shall obtain an official absence verification from the appropriate dean, and present it to the instructor **before** the absence. Prior arrangements must be made with the instructor for make-up work. If arrangements have been made, the student shall not be penalized.
- Tardiness – **Arriving late or leaving early will count as 1 absence.** Students are expected to remain in class until dismissed by the instructor. If you are leaving class, I will ask you for your name so that I can mark you absent.

## TESTING & MAKEUP POLICY

Exam	Percentage
Test 1	20%
Test 2	20%
Test 3	20%
Test 4	20%
Final Exam	20%

**The final exam grade can replace your lowest grade on any of the other tests (Test 1 Through Test 4). However, nothing can replace the final exam grade. The final exam is mandatory. Also, if you miss a test, then that automatically becomes the grade replaced by the final. If you miss a second test, then you will need a good, verifiable excuse in order to receive a makeup exam. No leaving the room until you have turned in your test.**

## ASSIGNMENTS – Subject to Change at Instructor’s Discretion

Assignments and other pertinent information are posted at [www.docbenton.com](http://www.docbenton.com). Exam problems will generally be taken from the homework.

## GRADING SCALE

Grade	Range
A	90-100%
B	80-89%
C	70-79%
D	60-69%
F	Below 60%

## ELECTRONIC DEVICE POLICY

Cell phones, mp3 players, and similar electronic devices are not to be used during class. Computers may be used only to view current course material. Students not paying attention may be dismissed from class.

## ACCOMMODATIONS

It is a college policy to provide reasonable accommodations to students with disabilities. If you would like to request accommodations due to a physical, mental, or learning disability, please contact the Disability Resources & Services office, SC-125, 480-423-6517.

## ACADEMIC HONESTY

- Every student in this class is expected to produce his/her own original work.
- Cheating/dishonesty is unacceptable and will not be tolerated.
- Cheating/dishonesty will result in being dropped from the course with a failing grade.
- Cheating/dishonesty will result in a letter to the Dean of Students for further action.

## CODE OF CIVILITY

As your instructor, I will strive to be professional, courteous, respectful and empathetic to your needs and concerns. I will:

- Begin and end class on time
- Be prepared for each class session
- Provide academic feedback and grade assignments in a timely manner
- Be available for individual consultation
- Clarify assignments and inform you of any adjustments to the class schedule or policies

As a student, you are expected to be reflective, courteous, respectful and empathetic to your classmates, instructor and other college staff assisting in your learning. You are expected to arrive on time for class and remain until class has ended. Your instructor should be notified in advance if there is a need to leave early. You will be expected to:

- Turn off cell phones before entering classroom.
- Be in class and be on time
- Be prepared for class sessions
- Participate in class activities
- Follow instructions and complete assignments.
- Put forth your best effort
- Be quiet and attentive during lectures
- Raise your hand if you have a question
- Maintain knowledge of your grade status
- Contact your instructor right away about concerns or situations that interfere with your success in class
- Comply with policies found in the SCC Catalog and SCC Student Handbook
- Be responsible for all information contained in this syllabus

**Students may be dismissed from class for disruptive behavior.**

SCC General Education Statement:

General Education enhances students' abilities in critically analyzing and effectively communicating in Written, Oral, Visual, and Numerical form. General Education is WOVeN through the curriculum and co-curricular experiences at Scottsdale Community College.