

Section 9453

MATH 178

Fall 2016

**CALCULUS - Bus-Soc & Behavior Science**

Wednesday: 10:30 am - 12:05 pm, Room 53-552

**Instructor:** Sharon Giles

**Phone:** (619) 644-7082

**Email:** [sharon.giles@gccd.edu](mailto:sharon.giles@gccd.edu)

**Website:** [www.grossmont.edu/sharongiles](http://www.grossmont.edu/sharongiles)

**Office:** 70-216 (tech center)

**Office Hours:** MW 3 pm - 3:45 pm  
and by Appt.

**COURSE DESCRIPTION**

Math 178 is an introduction to differential and integral calculus. We will study various applications designed for business, social, and behavioral sciences. We will also study matrix operations. If you read the text, do the homework, and contribute to class discussions you will have a good chance of success in Calculus.

**STUDENT LEARNING OUTCOMES**

- A student will be able to categorize matrix algebra problems and use appropriate theorems, formulas, and algorithms to solve them.
- A student will be able to define and apply the concepts of limits, continuity, derivatives and antiderivatives to solve a variety of problems.
- A student will be able to demonstrate understanding of the geometric relationship between a function, its first and second derivatives and its antiderivatives.
- A student will be able to interpret and analyze information to develop strategies for solving problems in business and behavioral science involving related rates and optimization problems.
- A student will be able to communicate the mathematical process and assess the validity of the solution.

**COURSE PREREQUISITE**

A grade of C or better in Math 110. Math 103 does not qualify as an equivalent prerequisite. You are responsible for all knowledge of Intermediate Algebra since only Calculus techniques will be taught in this course. Math 175 is recommended for a stronger foundation in intermediate algebra.

**TEXT & SUPPLIES**

**MyMathLab Access Code** - *Required* ([www.mymathlab.com](http://www.mymathlab.com) or Bookstore)

**Graphing Calculator.** *Required*

Bittinger, Ellenbogen, Surgent, **Calculus** and its Applications (11<sup>th</sup> ed.) – *For reference*

\* An electronic version of the text is available in MyMathLab

Note: The math dept. has agreed that the TI-83/84 will be used in math classes. Therefore, they are highly recommended. If you are using another type of graphing calculator you are responsible for its operation. You may use the TI 89 for homework, but they will **not** be allowed during the exams. Cell Phone calculators are not allowed on exams!

### **TEXT BOOK PURCHASE OPTIONS:**

There are different options to consider when you purchase the materials for this course.

- 1) Buy a new book along with the MyMathLab Access Code in the bookstore
- 2) Buy the MyMathLab Access code and use the electronic version of the text (about \$99)

**I recommend option 2. If you are waiting for financial aid, you can get temporary access for 14 days. Click the option at the bottom of the financial option page. Access must be paid before trial ends and all work will be lost and will not count**

### **CLASS PERFORMANCE:**

Grades will be determined as follows:

Online Homework	15%
Online Quizzes	15%
4 Tests (100 pts each)	50%
Final Exam	20%

### **ASSIGNING GRADES:**

90 – 100 % A	88 – 89% B+	78 – 79% C +	60 – 69 % D
	80 – 87% B	70 – 77% C	Below 60% F

If you take the course P/NP: **Pass** is equivalent to: **70 – 100%** No Pass is below 70%.

Grades will be rounded with the following guidelines: 89.4% rounds to 89% while 89.5% rounds to 90%. **ALL** requests for an opportunity to improve your grade due to personal circumstances will be denied. At the end of the semester, I submit the grade you earned in the class. This grade may be different than the one you wanted or needed in the class. I do not negotiate grades based on personal circumstances. Please respect this policy.

### **HOMEWORK**

The purpose of homework is to keep you on task and to prepare **you** for exams through daily practice. All homework will be done online and you have an unlimited number of attempts for each assignment. Each assignment, however, must be submitted by its due date which will be the date of the corresponding exam at the start of class (10:30 am).

Do not wait until the last day to submit an assignment. Remember that technology can be unreliable and at the most inconvenient time. PLAN AHEAD and submit your homework one day before it is due to avoid problems. Late assignments will not be accepted. ***NO EXCEPTIONS!!***

## QUIZZES

Quizzes will be given through MyMathLab just about every week. Quizzes will be announced in class. If you are absent from class you are responsible to know a quiz is to be completed. Quizzes will be based on homework questions and problems worked out in class. The lowest quiz score will be dropped.

## TESTS

There will be 4 tests and a comprehensive final. **No exam score will be dropped** and there are **no retakes**. Exams will cover material from the lecture notes, homework problems, and chapter reviews. If you miss an exam, you will receive a zero for it. Make up exams may **ONLY** be taken by **PRIOR ARRANGEMENT** or **in the case of a DOCUMENTED emergency** and only if you contact me on or before the exam day. No notes or books (or cell-phones) will be allowed on exams unless stated otherwise. Students may not leave the room during exams unless of an emergency.

## MYMATHLAB

MyMathLab is a requirement to this course. You will have access to videos, guided problems, and the homework problems. **Make sure that you buy your book with the MyMathLab Student Access Kit which contains your access code for the class.** MyMathLab is FREE with the purchase of a new book in the bookstore. Once you open your MyMathLab Access Kit, to where the access code is revealed it is nonrefundable. Use the following section code in MyMathLab when you register for MyMathLab.

**giles03813**

If you decide to only purchase the MyMathLab access code without the textbook it will cost you around \$99 (online price). You may purchase it at [www.mymathlab.com](http://www.mymathlab.com) or in the bookstore. Once you register in MyMathLab you will have access to an electronic version of the textbook within the homework section.

## ATTENDANCE

Attendance will be taken on a regular basis each week. You will have more success if you attend every class session. Each class session will cover a lot of material and builds upon the work produced in the previous sessions, so regular attendance helps you succeed. If you exceed 2 absences, without an acceptable reason, it is considered excessive and you may be dropped from the course. However, do not assume you will be dropped from the course! In the event of an absence, you are responsible for:

- all material covered
- turning all assignments in on time
- any schedule changes or class announcements

## **TUTORING**

You are strongly encouraged to work collaboratively in small groups. You should try to work together both inside of class as well as outside of the classroom. If you are having any difficulty with the material please come by my office hours or the Math Study Center. The MSC is located in the Tech Center rooms 70-112 & 70-113. Check the lab for hours.

Tutoring is also available by appointment through the Tutoring Center. An appointment must be made in advance for this service. You may contact them at 644-7387.

## **CLASSROOM CONDUCT**

Class time is valuable. You are expected to be courteous to each other and to the instructor. You will be asked to leave the class for display of behavior the instructor deems as disruptive to the class environment. Take care of all business before you arrive to class. It is a major interruption to leave the classroom while the instructor is lecturing.

Remember that YOU are in charge of your education, so take responsibility and do your best to learn the material. If you have a question, ask it. If you don't understand something, say so! Any question that will help you to better understand the material is not stupid. Because of this, **I expect you to be patient and respectful of others who are asking questions in an effort to do well.**

Please turn off and put away your cell phones during class. Putting away your phone means that it is off your desk and away in your backpack. Therefore there is absolutely NO CELL PHONE USE, WEB SURFING or TEXTING allowed in class. **Cell phone calculators are NOT allowed to be used during exams.**

## **ACADEMIC INTEGRITY:**

Cheating and plagiarism (using as one's own ideas writings, materials, or images of someone else without acknowledgement or permission) can result in any one of a variety of sanctions. Such penalties may range from an adjusted grade on the particular exam, paper, project, or assignment (all of which may lead to a failing grade in the course) to, under certain conditions, suspension or expulsion from a class, program or the college. For further clarification and information on these issues, please consult with your instructor or contact the office of the Associate Dean of Student Affairs.

## **STUDENTS W/DISABILITIES**

Students with disabilities who may need accommodations in this class are encouraged to notify the instructor and contact Disabled Student Services & Programs (DSP&S) **early in the semester** so that reasonable accommodations may be implemented as soon as possible. Students may contact DSP&S in person in building 60, room 120 or by phone at (619) 644-7112 (voice) or (877) 561-8975 (Video Phone for deaf).

## **IMPORTANT DATES**

Sep. 2	Last day to drop w/o “W” appearing on record (and for full refund)
Sep. 23	Last day to apply for P/NP
Nov. 10	Last day to drop this class with a “W”
Dec. 14	Final Exam

## **RECOMMENDATIONS FOR SUCCESS**

***ATTEND CLASS.*** The majority of students who do not complete this class are students that miss in excess of 2 class meetings. Feel free to ask questions any time during class.

***FORM A STUDY GROUP.*** Meet outside of class with 2 or 3 students on a regular basis and work on assignments. Exchange phone numbers and email address and stay in contact for help.

***USE THE TUTORS.*** The tutors in the Math Study Center are there to help you if you need it on a walk in basis.

***COMPLETE ALL ASSIGNMENTS.*** Complete your assignments by practicing a little bit each day. You can learn, develop skills, and retain concepts only with practice. MML has great resources to help learn the material. Explore the options and take advantage of them.

***KEEP A POSITIVE ATTITUDE.*** Try to enjoy the calculus experience. Few people do well in something they hate.

***Finally, by enrolling in this class you agree to all of the terms and conditions listed on this syllabus. Enjoy the class and if you have any questions feel free to contact me.***

## **REGISTER FOR MYMATHLAB**

“see separate link for detailed steps”

### **STEP 1:**

To get started go to [www.mymathlab.com](http://www.mymathlab.com) and click on “register” as a student.

### **STEP 2:**

Enter Course ID: **giles03813**

### **STEP 3:**

Fill out the required fields to create a username and password

### **STEP 4:**

\* If you bought an access code from the bookstore: click left side that you have the code, enter it, and follow instructions.

\* If you are buying one online, click to pay for it online and fill out billing information.

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If you are waiting for financial aid, you can get **temporary access for 14 days**. Click the option at the bottom of the financial option page. Access must be paid before trial ends and all work will be lost and will not count.

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**MYMATHLAB TECH SUPPORT: 1-800-677-6337**

<b>DATE</b>	<b>TOPIC</b>	<b>SECTION</b>
<b>WEEK 1</b> Aug. 24	Introduction / Limits	1.1-1.2
<b>WEEK 2</b> Aug. 31	The Derivative (Definition, power rule, product rule, quotient rule)	1.3 - 1.6
<b>WEEK 3</b> Sep. 7	The Derivative (cont.) Chain rule, higher order derivative	1.6 - 1.8
<b>WEEK 4</b> Sep. 14	Review First Derivative Test	1.1 - 1.8 2.1
<b>WEEK 5</b> Sep. 21	<b>TEST 1</b>	<b>1.1 - 1.8</b>
<b>WEEK 6</b> Sep. 28	Second Derivative Test Curve Sketching	2.2 - 2.3
<b>WEEK 7</b> Oct. 5	Absolute Extrema Optimization	2.4 - 2.7
<b>WEEK 8</b> Oct. 12	Review Logs and Exponentials	3.1
<b>WEEK 9</b> Oct. 19	<b>TEST 2</b>	<b>2.1 - 2.7</b>
<b>WEEK 10</b> Oct. 26	Derivative of Logs and Exponential Functions	3.1 - 3.2
<b>WEEK 11</b> Nov. 2	Logs and Exponential Apps Integration	3.3 - 3.4 4.1
<b>WEEK 12</b> Nov. 9	Definite Integral Integration using u-substitution	4.2 & 4.5
<b>WEEK 13</b> Nov. 16	Area under and between curves Integration by parts	4.3 - 4.4 4.6
<b>WEEK 14</b> Nov. 23	REVIEW	
<b>WEEK 15</b> Nov. 30	<b>TEST 3</b>	<b>3.1 - 4.6</b>
<b>WEEK 16</b> Dec. 7	Matrices Final Exam Review	Supplement
<b>MONDAY</b> Dec. 14	<b>FINAL EXAM</b>	<b>9:25am - 11:25am</b>

\* Schedule is subject to change