

MAT212 MW 11:30 a.m. – 12:45 p.m. SYLLABUS

COURSE

MAT212 – Brief Calculus/Brief Calculus Honors – Section 13627/13626 – Spring 2018

INSTRUCTOR

Brian Bird – GCC North A 122 – (623) 888-7191 – brian.bird@gccaz.edu

TIME and LOCATION

Mondays and Wednesdays 11:30 a.m. – 12:45 p.m. January 17th – May 2nd GCC North A 105

Note: No class on February 19th due to Presidents' Day
No class on March 12th and 14th due to Spring Break

COURSE DESCRIPTION

Introduction to the theory, techniques and applications of the differential and integral calculus of elementary functions with problems related to business, life, and the social sciences. Prerequisites: Grade of "C" or better in MAT150, or MAT151, or MAT152, or MAT187 or equivalent, or satisfactory score on District placement exam.

Note: Meeting the prerequisites does not guarantee your success in this class. You need to bring arithmetic skills, algebra skills, and a strong work ethic to the class in order to be successful. The Federal Credit Hour Definition requires “a minimum of two hours of out-of-class student work each week for approximately fifteen weeks for one semester or trimester hour of credit”. We will not have time to answer questions regarding basic algebra and arithmetic – please don't interpret this as me being impatient, rude or uncaring.

REQUIRED BOOK via MyMathLab

You will need immediate access to MML. This can be accomplished in several ways that will be discussed the first day of class. Prices range from \$40 to well over \$100. There is a 14 day free trial period if you don't currently have the funds. The course is based on the book: *Finite Mathematics and Calculus with Applications* by Lial, Greenwell and Ritchey, 10th edition.

RECOMMENDED CALCULATOR

A TI-83 Plus (or equivalent) is strongly recommended. They cost approximately \$90. A limited number of graphing calculators are available for lease from the college for \$20. Cell phone calculators are not permitted. Please see the instructor if you have any questions.

OBJECTIVES

Specifically, students will be able to:

- R. independently review and master prerequisites
- 1. semi-independently review and master linear functions
- 10. semi-independently review and master non-linear functions
- 11. understand the concepts of limit, continuity and derivative
- 12. calculate derivatives using various techniques
- 13. graph functions using derivatives as an aide
- 14. apply derivative to real world problems
- 15. understand the concept of integral
- 16. apply integral to real world problems
- 17. recognize a function of several variables

Generally, students will:

- 1. review and master the prerequisites of brief calculus (chapters R, 1 and 10)
- 2. learn about the mathematical concepts of limit, derivative and integral (chapters 11, 12, 13 and 15)
- 3. apply their knowledge of calculus to real world problems (chapters 14 and 16)
- 4. be introduced to multivariable functions (chapter 17)
- 5. become accustomed to using graphing calculators and recognizing their potential
- 6. achieve the skills and confidence necessary to apply calculus in future courses and in the real world

ATTENDANCE POLICY

Attendance is very important. Quiz, test and final questions will be based on what we cover in class. If you are unable to make class, please e-mail me (in advance if possible). **If you have excessive absences (based on my discretion), you may be withdrawn with a “Y”** (withdrawn failing which is counted as an “F” toward your GPA forever).

Note: Coming in late or leaving early counts as an absence. Missing the first week, missing 4 classes, missing two exams, and missing the Final are examples of what is considered excessive.

GRADING

ONLINE HOMEWORK 0%

Homework will be assigned via MML but it does NOT count towards this category and might not count at all. However, it is **highly recommended to complete and understand** the homework. **Don't rely on the help features** to get through the homework.

ATTENDANCE/QUIZZES/GROUP WORK 10%

Occasionally quizzes will be given to assess important topics. Quiz problems will be similar to problems presented in class and homework assignments. There will be a strong correlation between quiz frequency/difficulty and student effort/attitude.

Occasionally there will be attendance quizzes. Occasionally there will be group work assignments. There will be no makeup in-class work. Extra Credit will be offered and included in this category. It is strongly suggested to take advantage of Extra Credit opportunities. Extra Credit will be capped at 5% of the Semester Grade.

TESTS 70%

There will be four tests consisting of problems similar to problems presented in class, quizzes and homework assignments. Test 1 will cover chapters R, 1 and 10. Test 2 will cover chapters 11 and 12. Test 3 will cover chapters 13 and 14. Test 4 will cover chapters 15, 16 and 17. Test 1 will be given via MML in a proctored environment. Tests 2, 3 and 4 will be in-class and you will be able to use a cheat sheet. Calculators are allowed. There will be no makeup tests.

FINAL or ONLINE HOMEWORK 20%

The Final will be Monday May 7th **11:00 a.m.** – 12:50 p.m. There will be no makeup Final. The Final will be cumulative consisting of problems similar to problems from Tests 2, 3 and 4. A cheat sheet and calculator will be allowed. In lieu of the Final, students may have their MML Homework score count provided that it is higher than 90% and their Test Average is higher than 70%. This will be discussed in detail during the first day of class.

INDIVIDUAL PROBLEMS

To earn points, you must show the work. I cannot read your mind and can only grade your knowledge by what I see on paper. Show the set-up, work and units as appropriate. Box or circle your answers.

SEMESTER GRADE

Grades are earned and are not awarded. The following scale can be used to determine your grade:

A = 90 – 100% B = 78 – 89% C = **66** – 77% D = 50 – 65% F = 0 – 49%

COMMUNICATION

I will be sending emails to your official school address and the address you enter in MML. Please check these regularly as you will be responsible for the content. If you don't want to check your school email address, then forward it to an address that you will check. Refer to <http://www2.gccaz.edu/technology-help/student-email> for further information.

NOTES and DISCUSSION ITEMS

1. Course content may vary from this outline to meet the needs of this particular group
2. Syllabus may be changed at any time at the discretion of the instructor with verbal notice
3. Withdrawals are not automatic – see instructor. You may be withdrawn with a “Y” (withdrawn failing which is counted as an “F” toward your GPA forever) after the deadline (Tuesday March 6th – last day to withdraw without the instructor's signature) if you don't reach an agreement with the instructor.
4. College Catalog www.gccaz.edu/gcc-catalog and Student Handbook <http://www.gccaz.edu/student-life/office-student-life/student-handbook> Policies
5. Food and Drink Policy
6. Grievance (i.e. complaining) Policy
7. Behavior Policy (respect, one person talking at a time, **cell phones quiet and away**, etc.). If you are disrupting the learning environment (based on my discretion), you may be asked to leave class and reported to the appropriate Dean.
8. Classroom Atmosphere Policy (engage, ask questions, share ideas, etc.). Be prepared to be called on. Be prepared for my sense of humor which includes math jokes and sarcasm.
9. Cheating and Plagiarism Policy (1st offense assessment failure, 2nd offense course failure)
10. Special Needs – if you have any special needs, please inform the instructor and contact DRS as soon as possible
11. Getting Help

OUTLINE

Monday	Wednesday
1/15 No School MLK Day	1/17 Syllabus Review Introductions
1/22 Start Chap R/1/10	1/24
1/29	1/31
2/5 Start Chap 11/12	2/7
2/12	2/14 Happy Valetine's Day
2/19 No School President's Day	2/21
2/26	2/28
3/5*	3/7 Start Chap 13/14
3/12 No School Spring Break	3/14 No School Spring Break
3/19	3/21
3/26	3/28
4/2	4/4*
4/9 Start Chap 15/16/17	4/11
4/16	4/18
4/23	4/25
4/30*	5/2 Review – Study!!!
5/7* Final 11:00 a.m. – 12:50 p.m. Good Luck!!!	

* indicates planned test day

BRIAN BIRD'S SCHEDULE

Time	Monday	Tuesday	Wednesday	Thursday	Friday*
7:00					
7:30					GCC North Hiking Club and Dual Enrollment Evaluations
8:00	Office Hours* A 122 My Office	Office Hours* A 122 My Office	Office Hours* A 122 My Office	Office Hours* A 122 My Office	
8:30	MAT230 13603 A 105	MAT230 13603 A 105	MAT230 13603 A 105	MAT230 13603 A 105	
9:00					
9:30					
10:00	MAT150 17927 A 105	MAT150 17927 A 105	MAT150 17927 A 105	MAT150 17927 A 105	
10:30					
11:00					
11:30	MAT212/212H 13627/13626 A 105	MAT182 13634 A 105	MAT212/212H 13627/13626 A 105	MAT182 13634 A 105	
12:00					
12:30					
1:00	Office Hours* A 122 My Office	Office Hours* A 122 My Office	Office Hours* A 122 My Office	Tutor Hours* Building D Tutoring Area	
1:30					
2:00					
2:30					

*** Additional Office Hours Available by Appointment**

Sexual Harassment Statement

Sexual harassment is any unwelcome, verbal or physical conduct of a sexual nature that is sufficiently severe, persistent or pervasive that it alters working conditions and creates a hostile environment or reasonably interferes with, limits, or deprives a student of the ability to participate in or benefit from any educational program or activity.

Sexual harassment and discrimination in any college education program or activity are prohibited. Sexual Harassment may include hostile environment harassment, sexual assault, inducing incapacitation for sexual purposes, sexual exploitation or dating violence and stalking.

Students should report any discrimination and/or harassment they experience and/or observe to the GCC Office of Student Life in the Student Union. Phone (623) 845-3525 or email laura.dodrill@gccaz.edu.

To view the full Sexual Harassment Policy refer to the Student Handbook, Sexual Harassment Policy for Students (AR 2.4.4) (see also 5.1.8).