



Syllabus: *Math 212 Topics in Calculus*

Course Information

Course Prefix/Number: Math 212

Semester: SpringI 2018

Class Days/Times: Monday & Wednesday

11:15 AM to 12:30 PM

Mandatory Meeting: **T&TH 11:00 AM–11:30 AM**

1:30 PM – 2:00 PM

or by appointment..

Credit Hours: 3

Course Title: Topics in Calculus

Room: A 3

Instructor Information:

Name: Jorge Guarin

Phone/Voice Mail: (520) 383-0101

E-mail: jguarin@tocc.edu (Preferred)

Office location: Main Campus, Building A

Office hours: To Be Determined

Course Description:

Calculus for students majoring in business. Includes limits, continuity, differentiation and integration of algebraic functions

Course Objectives:

During this course students will

1. Evaluate limits of algebraic functions.
2. Determine continuity of a function and prove it by using its definition.
3. Evaluate derivatives of simple algebraic functions by using its definition.
4. Use techniques of differentiation on powers, sums, products, quotients, exponential, logarithmic, composite, and implicit functions.
5. Use the first and second derivatives to determine intervals for which a function is increasing or decreasing and concave up or down, points of inflection, and relative and absolute extrema; graph related functions.
6. Use tests of extrema to solve optimization problems.
7. Find the indefinite integral using integration techniques of power, constant, sum, substitution, logs, exponential, and integration by parts.
8. Use the fundamental Theorem of Calculus to evaluate definite integrals, and find the area between two curves.

Student Learning Outcomes (SLOs) :

After completion of the course students will be able to

- Perform optimization problems analysis with the use of graphing calculators.
- Create mathematical projects using PowerPoint.
- Employ technology to set up and solve real world situations using calculus.

Himdag Cultural Component:

Mathematics faculty's interpretation of what Nahban said in the "Desert Smells Like Rain" is this: While the Himdag discourages direct, exact answers, in the mathematical world, my students are expected to be able to come up with a precise answer for the situation. As a community college closely associated with the Tohono O'odham Nation, TOCC encourages growth of students' cultural knowledge and my class takes steps to transmit learning mathematics in a way that respects the Tohono O'odham Himdag.

Texts and Materials: An iPad is required for this class. **Checking out and returning an Ipad from the Library is a requirement to obtain a grade in this class.**

Required Text: Business Calcukus. Publisher: EDUCO and it is available on the EDUCO site. To enter to this site, students need to get the **ACCESS CODE** from the library.

APPS: The "Free GraCalc 2" and "My script calc" apps can be downloaded from the Apple store..

Evaluation and Grading & Assignments:**Attendance:**

The attendance policy for this class is simple and it gives you 10% of your grade. You are all adults who have in some form paid for this class. If you do not wish to come to any session, you do not have to attend. However, you are still responsible for completing work on time. If you are late for class, enter quietly and sit down. You will not be allowed to make up any quiz you miss because of tardiness. In case of a valid emergency, email your instructor using the information given on the first page. After receiving the email, the instructor will decide whether or not can give you an excused absence.

Academic Integrity: Violations of scholastic ethics are considered serious offenses by Tohono O'odham Community College, the Mathematics Department, and by your instructor. Students may consult the TOCC Student Handbook sections on student code of conduct, on scholastic ethics and on the grade appeal procedure.

[a] All homework can be done independently or with other students. The purpose of homework is to develop critical thinking skills and also to develop specific skills related to teaching mathematics by repeated practice of these skills. Without this practice most students find it impossible to perform well in this class. No collaboration is tolerated during exams in-class exams.

[b] Students are expected to abide by the Student Code of Conduct and the Scholastic Code of Conduct found in the Tohono O'odham Community College Student Handbook. Copies are available at the main student bookstore.

Course Feedback:

Homework by Sections, Chapter Tests. Practice Chapter Tests, Practice Final Exam and Final Exam have been posted on the EDUCO site: www.educosoft.com. All materials submitted will be graded and they scores returned immediately after they are submitted. Students can take up to 3 times any homework, Test or Final Exam. Higher score will be recorded. Datelines for every assignment is on the site. Once the assignment expires, it is removed and you can not continue taking it..

Homework Policy:

Homework has been assigned and it is posted on the EDUCO site: Each one comes with its own dateline. You must submit the homework before its dateline.

Withdrawals:

Please be sure to withdraw yourself by **October 26, 2017** if you do not expect to complete the class, otherwise you may receive an "F" grade.

Workload:

Students are expected to spend an average of 18 hours per week attending class sessions, doing assignments and preparing for exams. The standard Carnegie Unit of college credit assigns one credit hour for each 15 hours of class time and assumes that students spend two hours working outside the classroom for each hour of classroom instruction. For a three-credit semester course, this translates to an average of 6 hours spent outside of class weekly for 16 weeks.

Grading System/Policies:

Your final grade will be calculated as follows:			Grading Scale	
Attendance	100 points	10%	A =	1000 - 900 points
Homework assignments	200 points	20%	B =	899 - 800 points
Chapter Tests	300 points	30%	C =	799 - 700 points
Tutorial Time	200 points	20%	D =	699 - 600 points
<u>Final Exam</u>	<u>200 points</u>	<u>20%</u>	F =	less than 600 points
Total possible	1,000 points	100%		

Incomplete (I) grade:

To receive an "I" grade, you must have finished at least 3/4 of the course requirements and specifically request the grade. Please call before the last week of class to be sure that there is sufficient time to consider your request. An incomplete grade generally implies that a student has shown sufficient initiative to complete the course on his or her own. You will receive a copy of the standard "I" form filed with the grade. This form details specifically what must be done to complete the course. A student has one year to complete the required work, after which the grade automatically reverts to an "F."

Make-up Assignments:

No make-up assignments will be given and no late assignments will be accepted unless the student has made arrangements with the instructor.

Extra Credit Opportunities: Do not ask for extra credit opportunities until you have completed all of the required assignments to date. The instructor will occasionally give extra credit homework, quiz, and exam questions that test critical thinking skills.

Final Grades: Students will receive a grade transcript from the college mailed to the address given with registration materials at the end of the semester when all grades have been recorded. At any time, at the EDUCO site, educosoft.com you are able to see your grade.

SPECIAL NOTE TO STUDENT: For privacy and security reasons, instructors are advised **NOT** to give grades over the telephone.

DISCLAIMER: This syllabus is designed to evolve and change throughout the semester based on class progress and interests. You will be notified of any changes as they occur.

#	Day	Date	Sections	Hw Due	Test
			Class Overview		
1	Wednesday	1/17/2018	1.1 - 1.2		
2	Monday	1/22/2018	1.3 - 1.4	1.1 - 1.2	
3	Wednesday	1/24/2018	1.5 - 1.6	1.3 - 1.4	
4	Monday	1/29/2018	Review 1.7 - 1.9	1.5 - 1.6	
T1			Ch 1: 1.1 - 1.6		Chap 1
5	Wednesday	1/31/2018	2.1 - 2.2		
6	Monday	2/5/2018	2.3 - 2.4	2.1 - 2.2	
7	Wednesday	2/7/2018	2.5 - 2.6	2.3 - 2.4	
8	Monday	2/12/2018	Review 2.7 - 2.9	2.5 - 2.6	
T2			Ch 2: 2.1 - 2.6		Chap 2
9	Wednesday	2/14/2018	3.1 - 3.2		
NC	Monday	2/19/2018	President's Day		
10	Wednesday	2/21/2018	3.3 - 3.4	3.1 - 3.2	
11	Monday	2/26/2018	3.5 - 3.6	3.3 - 3.4	
12	Wednesday	2/28/2018	3.7 & Review 3.8-3.10	3.5 - 3.7	
T3			Ch 3: 3.1 - 3.7		Chap 3
13	Monday	3/5/2018	4.1 - 4.2		
14	Wednesday	3/7/2018	4.3 - 4.4	4.1 - 4.2	
NC	Monday	3/12/2018	Spring Break		
NC	Wednesday	3/14/2018	Spring Break		
15	Monday	3/19/2018	4.5 - 4.6	4.3 - 4.4	
16	Wednesday	3/21/2018	Review 4.7 - 4.8	4.5 - 4.6	
T4			Ch 4: 4.1 - 4.6		Chap 4
17	Monday	3/26/2018	5.1 - 5.2		
18	Wednesday	3/28/2018	5.3 - 5.4	5.1 - 5.2	
19	Monday	4/2/2018	5.5 - 5.6	5.3 - 5.4	
20	Wednesday	4/4/2018	Review 5.7 - 5.9	5.5 - 5.6	
T5			Ch 5: 5.1 - 5.6		Chap 5
21	Monday	4/9/2018	6.1 - 6.2		
22	Wednesday	4/11/2018	6.3 - 6.4	6.1 - 6.2	
23	Monday	4/16/2018	6.5 - 6.6	6.3 - 6.4	
24	Wednesday	4/18/2018	Review 6.7 - 6.9	6.5 - 6.6	
T6			Ch 6: 6.1 - 6.6		Chap 6
25	Monday	4/23/2018	7.1 - 7.2		
26	Wednesday	4/25/2018	7.3 - 7.4	7.1 - 7.2	
27	Monday	4/30/2018	7.5 - 7.6	7.3 - 7.4	
28	Wednesday	5/2/2018	Review 7.7 - 7.9	7.5 - 7.6	
T7			Ch 7: 7.1 - 7.6		Chap 7
29	Monday	5/7/2018	Review Final Exam		
FE	Wednesday	5/9/2018	1.1 - 7.6	Final	Exam

Acknowledgment of Receipt of Syllabus

Date: January 17, 2018

Please read, sign and return the following acknowledgment to me in class, *or* return to me at the following address:

Jorge Guarin
Tohono O'odham Community College
P.O. Box 3129
Sells, AZ 85634

- I have received my MAT 212 syllabus (including course objectives, policies, requirements and schedule) and have read and understood all the enclosed materials
- I have no objection to receiving an occasional call from the instructor at the number given with my registration materials.
- I prefer that the instructor not call or contact me by phone anytime during the semester.

My reason(s) for taking this course:

My background in this area includes:

- I would like to be contacted by the instructor regarding the following concerns:

Print Name Clearly Here

Sign Name Here

Student ID Number

Telephone Number

Current Mailing Address/City/State/Zip

E-mail Address