

COLLEGE OF CENTRAL FLORIDA

CALCULUS

MAC2311

Spring-C (Jan. 9 – May 4)

2023 SYLLABUS

Section 30 – meets Tue and Thu 6:00 pm - 8:15 pm

I. Course Information

Instructor Name:	Dr. José A. Toro-Clarke	Science Building 2	Office 207	ext. 1202	
e-mail:	clarkej@cf.edu	Telephone No.:	(352) 873-5800		
Office Hours	Monday	Tuesday	Wednesday	Thursday	Friday
		12:30-1:45 pm 3:30-4:45 pm 5:00-6:00 pm	5:00-6:00 pm	12:30-1:45 pm 3:30-4:45 pm 5:00-6:00 pm	11:00 am-12:15 pm

How the professor wants me to contact him (Dr. T)?

Always through **CANVAS** inbox, never by email.

Where can I find Dr. T Course Materials?

Also, everything you need will be in Modules in **CANVAS**: PowerPoint, Dr. T Pre-recorded Lectures, Study Plan (Homework/Quizzes), and Tests.

How will Dr. T communicate with the students at large?

Dr. T will contact through **Announcements** in **CANVAS**. So, check it regularly.

How to enroll in MyLab Math?

To enroll in the WebAssign course, click on the WebAssign link in the Canvas menu. Follow the prompts. Also, you will find information in Module A in Canvas.

Because you must register through Canvas, the course ID is not required to register for WebAssign.

Check Announcements Regularly!

Extended Emergency Closure

For emergency campus closings (natural disasters, etc.) call 352-291-4499 or 800-831-9244 or check our [website](http://www.cf.edu) (CF.edu)."

Important CF Dates Spring 2023

2022	Spring Term	Comments
Jan. 16 (M)	MLK Jr. Holiday	College Closed (there is a March)
Feb. 14 (T)	Faculty Prof Dev Day	No classes scheduled
March 13-19 (M-Sun)	Spring Break	College Closed
Apr. 28 – May 4 (F-Th)	Final Exam Week	

<https://pr.cf.edu/files/admissions/Academic.Calendar.2022-2023.pdf>

Required Materials

WebAssign access code: WebAssign will be where you complete all of your assignments for the course and monitor your grade. A copy of the e-Text is provided with this code. The access code can be purchased at the CF bookstore.

Prerequisite: MAC1140 with a grade of “C” or CLM score of at least 103 along with a grade of “C” or better or MAC1147 only with a grade of “C” or better.

Required Text – Title:	CALCULUS, Early Transcendental Functions	Author of Text:	Larson, Edwards
Edition:	7th Edition	ISBN-7: 978-1-337-55251-6	
Required Materials:	Cengage Course ID: NONE NEEDED. You will link the course via Canvas.	Optional Materials:	WebAssign access code and calculator (graphing calculators permitted)

THE PROFESSOR RESERVES THE RIGHT TO MAKE CHANGES.

II. Course Description

An introduction to single variable calculus with applications. The course includes the study of functions, limits, continuity, differentiation and integration of algebraic, logarithmic and exponential functions, rates of change and curve sketching. Graphing calculator and/or algebraic system work is required in this course.

College Policies –Spring 2023

Academic Integrity – Cheating and/or plagiarism will not be tolerated and may result in an “F” for the course as well as disciplinary action under the Code of Student Conduct. A student may be referred to an Academic Integrity Seminar. There will be a charge for this two-hour seminar, and attendance is required (see Student Handbook).

Access Services for Students with Disabilities – If you have a disability, serious medical condition or a learning disorder and want to request accommodations, it is your responsibility to register with the Office of Access Services and to provide verifiable documentation to Access Services as soon as possible. If eligible, Access Services will provide you with a notification of approved accommodations to give to your instructors at the beginning of the semester. For information see the Access Services webpage at <http://www.cf.edu/departments/sa/ss/access/>, contact access@cf.edu or call 352-854-2322, ext. 1580. Assistance for students is available at all CF locations, by appointment.

Classroom Decorum – Disruptive behavior will not be tolerated. Disruptive students will be asked to leave the classroom. Continuous disruptive behavior will result in withdrawal from the course and disciplinary action under the Code of Student Conduct (see Student Handbook).
Also, please go on canvas to see the withdrawal dates and other college policies

III. Student Learning Outcomes

Institutional Learning Outcomes

Learning Outcome	Quiz	Exam	Project	Classroom Activity
Quantitative and Analytical Reasoning: The student will understand and apply mathematical and scientific principles and methods.				
1. Perform accurate computations using order of operations with and without technology.	x	x		x
2. Identify and organize relevant information and complete the solution of an applied problem.	x	x		x
3. Interpret and communicate understanding of visual representations of data.	x	x		x
4. Demonstrate mathematical number sense and unit sense.	x	x		x

MAC 2311 Learning Objectives:

1. The student understands the concept of derivative geometrically, numerically, and analytically, and interprets the derivative as an instantaneous rate of change, or as the slope of the tangent line.
2. The student states, understands, and applies the definition of derivative.
3. The student finds the derivatives of functions, including algebraic, logarithmic, and exponential functions, their sums products quotients and compositions, including higher order derivatives.
4. The student finds the derivatives of implicitly-defined and inverse functions.
5. The student finds an equation for the tangent line to a curve at a point and a local linear approximation.
6. The student finds local and absolute maximum and minimum points, finds points of inflection of functions, understands the relationship between the concavity of f and the sign of f'' , and understands points of inflection as places where concavity changes.
7. The student solves optimization problems.
8. The student models rates of change, including related rates problems.
9. The student calculates the values of Riemann Sums over equal subdivisions.
10. The student interprets a definite integral as a limit of Riemann sums.
11. The student interprets a definite integral of the rate of change of a quantity over an interval as the change of the quantity over the interval, that is

$$\int_a^b f(x)dx = F(b) - F(a) \text{ where } F \text{ is an antiderivative of } f.$$

- 12. The student uses integration by substitution (or change of variable) to find values of integrals.
- 13. The student applies integration to model and solve problems in physical, biological, and social sciences, especially in solving differential equations

Where to go in Canvas to find the coursework?

The course is set up on a modular system and each **HOME** or **MODULE**.

Proctoring: Test will be administered by me in the classroom or **CF Testing Center** (contact me for this option).

			*Grade Example	
Assignments are weighted as follows:	Weight System	Point System	Weight System	Point System
Homework/Quizzes (unannounced Quizzes)	25%	250	0.25 * 85% = 21.25%	250 * 85% = 212.5
3 Tests (in class with Statcrunch or Excel)	45%	450		
Test 1	15%	150	0.15 * 70% = 10.50%	150 * 70% = 105.0
Test 2	15%	150	0.15 * 79% = 11.85%	150 * 79% = 118.5
Test 3	15%	150	0.15 * 85% = 12.75%	150 * 85% = 127.5
Comprehensive Final Test	25%	250	0.25 * 90% = 22.5%	250 * 90% = 225.0
Total	100%	1,000	78.85%	788.5 ÷ 1000 = 0.7885 so 0.7885 * 100 = 78.85%

Grades: The following system will be used for the final grade:

NOTE: THE FINAL EXAM MAY RELACE THE LOWEST GRADE ON THE INCLASS EXAMS

Grades: Grades are calculated based on the following procedure:

A	Excellent	90% and above	4.0 quality points
B+	Very Good	87%-89%	3.75 quality points
B	Good	80%-86%	3.0 quality points
C+	High Average	77%-79%	2.75 quality points
C	Average	70%-76%	2.0 quality points
D	Poor	60%-69%	1.0 quality points
F	Failure	59% and below	No quality points

Tutoring: Tutoring is **FREE** for **CF** students!

Ocala Campus-Mathematics Lab
Ocala Campus-Learning Support Center

Building 7, Room 106
Building 3, Room 101

352-854-2322 ext. 1259
ext. 1246

V. Course Schedule/Outline

MAC2311 – Calculus I Tentative Lecture Schedule		
Week	Assignments Sections	Topic & Comments
Week 1	2.1 (Read on your own), 2.2, 2.3	Introduction Limits
Week 2	2.3, 2.4	
Week 3	2.5, 3.1 (Differentiation)	
Week 4	3.2, 3.3	Differentiation Test 1 - I will cover up to Section 3.1
Week 5	Test 1	
Week 6	3.4, 3.5	
Week 7	3.7, 4.1	
Week 8	4.2, 4.3	Application of Differentiation Test 2 covers 3.2 to 4.5
Week 9	4.4, 4.5, 4.6	
Week 10	Test 2	
Week 11	4.7, 4.8	
Week 12	5.1, 5.2	Integration
Week 13	5.3, 5.4	
Week 14	5.4, 5.5,	
Week 15	5.7, 5.8	Test 3 covers 4.6 to 5.8
Week 16	Test 3	
	Final Test	TBA 6:00 pm-8:15 pm

Test – if missed you can replace the ZERO with the Final Test.

Disclaimer: The Instructor reserves the rights to make any changes to these policies and procedures as well as the course outline as deemed necessary.

Calculus I Homework/Quizzes Spring 2023 Larson, Edwards 7 th Edition	
Section	Assignment Problems (only odds)
2.1	3
2.2	5, 6, 7, 8, 9, 10, 11, 13, 17-30, 33-36

Calculus I
Homework/Quizzes Spring 2023 Larson, Edwards 7th Edition

Section	Assignment Problems (only odds)
2.3	5-33, 37, 43, 44, 46-51, 53, 63-76, 99, 100
2.4	5-16, 33, 34, 36, 41-55, 61-66, 99, 100
2.5	3-10, 37-50
3.1	21, 30, 93-97
3.2	17-26, 41-54, 56-58, 71, 72, 82-84, 95, 98, 101-103, 105, 107, 112, 117-118
3.3	7, 9, 10, 12, 15, 21, 23, 24, 43-56, 58, 71-73
	Test 1
3.4	9-19, 25, 33-41, 43, 47, 48, 57-62, 68, 69, 70, 71, 72, 75-79, 87-111, 112, 133-135, 141-143, 145, 157, 158
3.5	5-11, 13, 15, 17-22, 31, 32, 35, 36, 38, 50, 66, 69, 71, 73
3.6	SKIPPED
3.7	11, 13-18, 21, 27-30, 39, 40, 41, 42
4.1	5-9, 15, 16, 19, 20, 21, 22, 23, 24, 25-27, 39, 43, 44, 75-78
4.2	11-13, 17-24, 43-45, 47, 49, 51
	Test 2
4.3	5-8, 11, 12, 14, 15, 16, 17, 18, 23, 24, 25, 29, 37-39, 43, 44, 48, 49, 51, 52
4.4	3-7, 15-19, 25, 28, 29, 30, 33, 43-47, 67, 69
4.5	13, 17-42
4.6	19, 25, 27, 29, 33, 34
4.7	9, 10, 11, 13, 15, 17, 18, 19, 20, 33, 35
4.8	15, 16, 17, 21-25, 27, 31, 32, 37-40
5.1	15-35, 37, 39, 40, 42, 43, 57, 59, 60, 61, 65, 67, 68, 69
5.2	17, 19, 29, 33, 34, 47
	Test 3
5.3	15-22, 29, 31, 43, 44, 45, 49, 50
5.4	9-12, 15, 16, 21-27, 29, 30, 51, 53, 55, 56, 75-83, 85, 89, 90
5.5	9-25, 35-54, 65, 67, 73, 74, 75
5.6	SKIPPED
5.7	5-26, 29, 30, 33-39, 41, 42, 51, 53, 55, 57
5.8	3-16, 19, 21, 23, 27, 29-34
	Final Test

This is something some students tend to request at the end of the semester, before finals:

Dr. T, could I get some Extra Credit to increase my grade?

No, the reason is there is extra credit already in place. The Study Plan and the discussion that is planned already. The detail of the extra credit is detailed below.

You can earn up to 30% in extra credit:

Extra Credit Policy:

1. Mandatory Reading (5% for the Final Test):
 - My published article “*A Participative and Individualized laboratory: A Strategy for Increasing Students Success in College-Level Math Courses*” from the book “*The Mathematics Education for the Future Project*” Proceedings of the 15th International Conference “*Theory and Practice: An Interface or A Great Divide*” August 4-9, 2019, Maynooth University, Kildare, Ireland.
 - Once you read this, write five sentences of your interpretation and opinion of why I do this (which needs to be related to my published article).
2. Visits me during office hours. During the first two weeks of class. Let’s have a conversation with you and me. That initial conversation will give you a **5% Extra Credit** for the First Partial Test.
3. Going to **Tutoring** (**seeking help is a wise move**) and taking and getting help from the Tutor in Math Lab up to 20% (5% per Test):
 - a. You could earn up to 5% per Test (you need to register your assistance using your CF code). I will request the attendance weekly report (or per Test) from the Math Lab Coordinator. I encourage you to use the Math Lab from Bldg. 2.

Additional Tips

- Make sure your browser is up-to-date. Google Chrome or Safari/Firefox are the recommended browsers.
- Keep and/or print a copy of the course syllabus and schedule on your computer.
- Check the course and course email regularly.
- Questions about grades or other personal matters should be emailed to the facilitator(s).
- Set aside specific times each week to complete class activities. If not, your other work will expand to fill all the time you have.
- Expect electronic glitches/power outages and plan ahead. Don’t wait until the last minute to submit your work.
- Maintain back-up copies of all your coursework on a flash or jump drive.

STATEMENT: Due to unforeseen happenings, it may be necessary for the course assignment schedule to be altered. The instructor will always strive to be fair about any changes.

The College of Central Florida is committed to helping you succeed and achieve your academic, personal, and career goals. There is a wide range of resources and support services available to you. When students are connected early to resources and support systems on campus, they are more likely to stay in classes, perform better in those classes, and complete their paths more quickly. One example is through an Early Support Program, where you may receive an email indicating your professor or advisor is reaching out directly to help connect you to support services. This may include connecting you to tutoring, financial support, psychological support services, and disability services just to name a few. Be aware, you can also reach out to these services on your own as well. Additionally, we offer disability services, a testing center, and many other resources which are all available to you. [Please refer to the College Resources, Dates, and Policies document in your Canvas course to learn more about these supports.](#)