Fall 2022 Syllabus

MAC 2311—Calculus I w/Analytic Geometry

Course Information:

- **Class Meets:** (Section—01) MW 8:00-9:15 and TTH 8:00-8:50 Building 7, Room 109
- **Instructor:** Kathryn Wagner
- **Office:** Mathematics Building 7, Room 102H
- **Office Hours: Monday and Wednesdays: 7:30-8:00 am, 9:30-10:45 am**
  Tuesdays and Thursdays: 7:30-8:00 am, 9:00-9:30 am and 11 am-12:15 pm
- **E-mail:** wagnerk@cf.edu
- **Phone:** 352-854-2322 Ext. 1504
- If you have any questions or concerns, feel free to visit me during office hours, which can be done via Zoom if you wish (this will need to be set up) or send me an e-mail. If you decide to contact me via e-mail, please include your name, course, and section number. This description will help me in assisting you. Note that if you email me from Canvas, this information is automatically included in your message. The best way to reach me is by email. Please include a description of what you are having difficulty with. This will help me to better answer any question(s) you may have. If you leave a voicemail, please leave your name and an email address I can respond to. Please allow 24 hours for a response Monday morning through Thursday afternoon and up to 72 hours for a response Thursday evening through Monday morning. Scheduled holidays may extend the response time. It is important to make sure that your Cengage and Canvas accounts are linked to an e-mail address you use on a regular basis (such as Patriots Mail) as Cengage and Canvas will be the main ways I will contact the class with announcements and updates. It is strongly advised for students to check their e-mail and Canvas announcements often.
- **Online Tutoring Assistance:** You can use the Smarthinking Online Tutoring tab on the left menu bar to access tutors. The College of Central Florida tutors are at the top and the subject will have a CF in front of it. Please make sure you utilize our CF tutors. The initial username for Smarthinking is your CF ID number followed by CF (e.g., 99999CF). The initial password is **lastname (lowercase).** Then you will create your own account. The limit for Smarthinking is 5 hours per student. If you desire more time contact Josh Strigle at x-1317 or dlhelp@cf.edu. Some external math websites that you could also use are: Khanacademy, Quickmath, and Purplemath.
- **Extended Emergency Closure**: "For emergency campus closings (natural disasters, etc.) call 352-291-4499 or 800-831-9244 or check our website (CF.edu)."
- **Attendance Verification:**
  - A student will be verified as "Attending" the course if two objectives are completed:
  - Successfully registering for Cengage
  - Completing at least one homework assignment or exam
- **Course Description:** In this course I will guide you through the mathematical concepts you need to be successful in your next mathematics course. I expect the you to complete assignments in a timely fashion and ask questions when help is needed. It is your responsibility to keep track of when assignments are due and to do the work assigned. I do not give the you a grade for this course, I only record the grade that represents the knowledge achieved in this course through the work you have done. This course is 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. The prerequisite for this course is MAC 1140 with a grade of "C" or better, or a CLM score of at least 103 along with MAC 1114 with a grade of "C" or better, or MAC 1147 only with a grade of C or better.

- **Required materials:**
  - Cengage/access code (register at www.cengage.com, with LMS Canvas)
  - Calculator: A Graphing Calculator is required for this course. TI83/84 is recommended. No cell phones!
- **Optional materials**: Textbook: Calculus, Early Transcendental Functions, 7th Edition, ISBN 9781337552516. (An electronic copy of the textbook is available in Cengage, so it is not required to purchase the text.)
- **Student Learning Outcomes:**
  - Quantitative and Analytical Reasoning: The student will understand and apply mathematical and scientific principles and methods:
    - Perform accurate computations using order of operations with and without technology.
    - Identify and organize relevant information and complete the solution of an applied problem.
    - Interpret and communicate understanding of visual representations of data.
    - Demonstrate mathematical number sense and unit sense.

    How measured: With quizzes and exams.

- **Course Objectives:**
  - 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.
  - The student states, understands, and applies the definition of derivative.
  - The student finds the derivatives of functions, including algebraic, logarithmic, and exponential functions, their sums, products, quotients, and compositions, including higher order derivatives.
  - The student finds the derivatives of implicitly-defined and inverse functions.
  - The student finds an equation for the tangent line to a curve at a point and a local linear approximation.
  - 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.
  - The student solves optimization problems.
  - The student models rates of change, including related rates problems.
  - The student calculates the values of Riemann Sums over equal subdivisions.
  - The student interprets a definite integral as a limit of Riemann sums.
  - 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, $\int f(x)dx = F(b) - F(a)$ where F is an antiderivative of f.
  - The student uses integration by substitution (or change of variable) to find values of integrals.
  - The student applies integration to model and solve problems in physical, biological, and social sciences, especially in solving differential equations.

- **Assessment:** Each student's grade in the course will be based upon correct and complete work in three separate categories: homework, unit exams, and a comprehensive final exam. Each category will be explained below. Pay close attention to the due dates for all units. These dates are noted in the syllabus as well as in Cengage. It is the student's responsibility to make sure that all work is completed on time and to be prepared for all exams. It is imperative that students keep up with course material and not wait until the last moment to complete assignments/study for exams. Registering for Cengage is a requirement for completing homework and exams in the course.

  Students may complete homework and unit exams prior to the due date. The final exam must be completed within the specified window of time.

  All Cengage assignments in this course will be divided into four units:

Unit 1: Homework for sections 2.1 - 2.5, 3.1 – 3.3, and unit exam 1
Unit 2: Homework for sections 3.4-3.7, 4.1-4.2, and unit exam 2.
Unit 3: Homework for sections 4.3-4.8, 5.1-5.2, and unit exam 3.
Unit 4: Homework for sections 5.3- 5.8, and unit exam 4.

- **Homework**: You have unlimited attempts on the homework and practice problems. If a you fail to answer homework problem correctly three times in a row, a similar problem will be given in its place. They are found under the "Homework" tab in Cengage. Only the highest homework score counts toward the grade. Only homework problems completed prior to the due date will receive credit. All homework assignments are equally weighted for a combined total of 15% of the final grade. Each homework set will be due on the date and time of the corresponding unit exam. See Cengage for due dates. You are expected to complete each assignment and if you encounter difficulties with a problem(s), you should ask appropriate questions via email or see the instructor during office hours, or get assistance at the Math Center. It is advised that you complete the homework in a timely fashion. You are encouraged to finish the homework early so they have more time to study for the exams.

- **Exams**: There will be 5 exams altogether: the 4 unit exams, as well as a comprehensive final exam. Students have one attempt on a unit exam. These exams may be online or in-class exams, to be announced in class. The options for online test-taking are given below. It is imperative that you pay close attention to instructions for taking your tests! A schedule of exam due dates is given in the syllabus schedule, as well as in Cengage. Any changes to that schedule will be announced several days in advance, in class! If a student fails to take the test by the due date, the student will receive a zero for the exam. No makeup exams will be given! Eligible missed exams may be replaced by the score on the final exam. No score replacement will occur on a zero grade obtained via cheating/academic dishonesty or cellular phone usage. The four unit exams are each equally weighted for a combined total of 60% of the final grade (15% each). In addition to the unit exams, there will be one comprehensive final exam for this course, weighted at 25% of the final grade. No makeup final exams will be given! If the final exam is missed, it will count as a 0% and no score replacement will occur on a unit exam. While students may work ahead on unit exams, the final exam will only be available during the window of days posted in the syllabus.

  Exams may be taken in 2 ways:
  - Option 1: Honorlock
    - There are technology/hardware requirements when using the Honorlock online proctoring service. A valid webcam, microphone, and photo ID are necessary.
    - When you are ready to take an exam, select the "Honorlock" tab in Canvas, choose the exam you wish to take, then follow the directions to get your exam started.
    - A link to an Honorlock tutorial video is available on the Canvas "Home" page
    - Students must follow Honorlock policies and procedures to use this online proctoring service.
    - There may be a wait for password entry after the exam initialization procedures have been followed.
  - Option 2: Ocala Campus Testing Center
    - Appointments for exams in this course may be scheduled at the Ocala campus testing center by visiting https://onetesting.net/campus/ocala-testing
    - Days/times for scheduling are limited and it will be the student's responsibility to work with any current exam due dates.
    - It is highly recommended that students schedule exams well in advance if they wish to take their exams at the testing center.
    - Students may request a physical copy of the financial formula page for exam 3 and the final exam if testing on campus.

- Students must follow the testing center's policies and procedures, and abide by their business hours.
- **Update:** The Citrus campus testing center may be allowing students to make appointments for testing. Please contact them for further details.
- **Update:** Students may wish to contact the Ocala campus library (Learning Resource Center) if the Ocala testing center is fully booked.

- **The semester grade is weighted as follows:** Homework Exercises (online)--15%
  Four Unit Exams (online)-------60%
  Comprehensive Final (online)--25%

- **Letter Grades:** A student's overall semester percentage can be viewed in Cengage. Letter grades are based on the following scale.

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
FF	Failure	Academic Integrity	No quality points

- **Suggested Course Schedule/Outline. Following this schedule will assure that you finish the course "on time". If you want to work faster, you can. The closing dates for Units 1, 2, 3, and 4, as well as the final exam dates, will not change!**

Week #	Topics covered	Other Information
1 (08/15-08/18)	Introduction, 2.1, 2.2	**First Day of class, 8/15** All units open
2 (08/22-08/25)	2.2, 2.3	
3 (08/29-09/01)	2.4, 2.5	
4 (09/05-09/08)	3.1, 3.2	**No classes on Monday, 9/5-Labor Day**
5 (09/12-09/15)	3.3, 3.4, Review for test 1, **Exam 1**	Unit 1 Closes 9/18 11:59 pm
6 (09/19-09/22)	3.5, 3.6	
7 (09/26-09/29)	3.7, 4.1	
8 (10/03-10/6)	4.2, Review for test 2, **Exam 2**	Unit 2 Closes 10/9 11:59 pm **No classes on Tuesday, 10/4-Prof. Dev. Day**
9 (10/10-10/13)	4.3, 4.4	
10 (10/17-10/20)	4.5, 4.6	
11 (10/24-10/27)	4.7, 4.8	

12 (10/31-11/03)	5.1, 5.2	
13 (11/07-11/10)	5.3, 5.4, Review for test 3, **Exam 3**	Unit 3 Closes 11/13 11:59 pm
14 (11/14-11/17)	5.5, 5.7	
15 (11/21-11/24)	5.8, Review for unit test 4, **Exam 4**	Unit 4 Closes 11/27 11:59 pm
16 (11/28-12/01)	Review and catch-up!!	

*****Final Exam—see the schedule below for exact time**. **Please note the end times are NOT 11:59 pm!!!**

Your final exam is available on Friday, December 2, at 12:00 am, and closes at 11:00 am on Monday, December 5

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