

**Math 122 – Y01 Calculus for Business Administration and Social Sciences
Summer 2018
COURSE SYLLABUS**

Course and Contact Information:

Instructor: Ann Clifton

Office: LeConte 400G

E-mail: aclifton@math.sc.edu; Note: email is frequently the best way to contact me.

Class Meeting Info: MTWR 2:30 pm-4:10 pm in LeConte 112

Office Hours & Help Sessions: I will hold open office hours and help sessions in my office (LeConte 400G) TWR 1:00pm-2:00pm. Feel free to drop by with your questions! Other times are available by appointment.

Web Page: The syllabus, course outline, notes, handouts, and course announcements will be posted on the course webpage at <http://people.math.sc.edu/aclifton/courses/122/Summer18/teaching.html>.

Prerequisites: Qualification through the Math Placement Test or through a grade of C or better in MATH 111 or 111L.

Learning Outcomes: Upon successful completion of this course, students should be able to:

- Recall basic mathematical terms related to elementary algebraic, exponential, and logarithmic functions, and derivatives and integrals of such functions and express these terms in correct context.
- Apply the methods of calculus to solve applications involving maxima, minima, rates of change, motion, work, and area under a curve.
- Verbally interpret data given as graphs, tables, and equations and put into words the relationship between a function and its derivative or integral given in these forms as well.
- Utilize a graphing calculator to solve problems, locate maxima and minima of a function, and analyze change in a function.

Required Materials:

Calculator: All students will need a graphics calculator for this class which will be utilized in class, on the homework assignments, and on portions of the exams. ***The TI-83 or 84 is highly recommended.*** No calculator with a computer algebra system will be allowed on exams or quizzes. These include the TI-89 and TI-Nspire CAS, amongst others.

Text and/or Wiley Plus: *Applied Calculus* (5th ed), Hughes-Hallett, Gleason, Lock, Flath, et al., Wiley, 2014. A hard copy of the text is not required since an eBook comes with the purchase of Wiley Plus, which we will use for the online homework.

Option 1 – Textbook (3-Hole Punched) plus a Wiley Plus Access Code (includes eBook) or
Option 2 – Just a Wiley Plus Access Code (includes eBook).

If you don't mind using the eBook instead of a hard copy of the text, then you may just use Wiley Plus. You can purchase Wiley Plus online by going to www.wileyplus.com. On the home page, enter the six-digit code announced in class or search for your section by typing "University of SC Columbia." You will need to use your university email address. Then you will have multiple options for purchasing access.

Exam Schedule and Grading Policy:

Tests: There will be three in-class exams worth 100 points each plus a final exam worth 200 points. The final exam is cumulative and will include topics from throughout the semester. There will be parts of

every test that require a graphing calculator, including the final exam. Students are required to bring their Student ID to class on the day of each exam. The dates of the tests and final exam are as follows:

Exam #1: Tuesday, July 3

Exam #2: Thursday, July 19

Exam #3: Monday July, 30

Final Exam: Saturday, August 4, 12:30pm

Wiley Plus Homework: Online homework will count for a total of 50 points. This homework will be assigned over each section covered. You will use Wiley Plus to do the online homework. The online system gives you immediate feedback and you are able to see the solution and/or helpful hints. You also have as many attempts as you need to get each problem correct.

Quizzes: There will be in-class quizzes that will be worth a total of 50 points once the lowest quiz grade is dropped. I do NOT allow makeup quizzes! If you miss an in-class quiz, you will receive a zero for that quiz. These quizzes may or may not be announced.

Attendance/Participation: Attendance and participation is essential to your success in any summer course. You are expected to attend class regularly and to participate in whatever class discussion may occur. Per University policy, absence from more than 10 percent of the scheduled class sessions (more than two classes), whether excused or unexcused, is considered excessive and the instructor may choose to exact a grade penalty for such absences. If you miss more than two classes during this summer session, five percentage points will be deducted from your final grade.

Points Summary:

In-Class Exams	300 points (100 points each)
Final Exam	200 points
Wiley Plus Homework	50 points
Quizzes	50 points
Total	600 points

Grading Scale: Your final grade will be determined by the percentage of these points you have actually earned.

A	90.0-100%	C	70.0-77.9%
B+	88.0-89.9%	D+	68.0-69.9%
B	80-87.9%	D	60.0-67.9%
C+	78.0-79.9%	F	below 60%

Late Work and Exam Makeup Policy:

Students are obligated to complete all assigned work promptly, to attend class regularly, and to participate in whatever class discussion may occur.

The following events or circumstances are potentially excusable absences:

- Participation in an authorized University activity (such as musical performances, academic competitions, or varsity athletic events in which the student plays a formal role in a University sanctioned event),
- required participation in military duties,
- mandatory admission interviews for professional or graduate school which cannot be rescheduled,
- participation in legal proceedings or administrative duties that require a student's presence,

- death or major illness in a student's immediate family,
- illness of a dependent family member,
- religious holy day if listed on www.interfaithcalendar.org,
- illness that is too severe or contagious for the student to attend class,
- weather-related emergencies.

For more information, see the [University Attendance Policy](#). Note that “absence from more than 10 percent of the scheduled class sessions, whether excused or unexcused, is excessive, and the instructor may choose to exact a grade penalty for such absences.”

Missing In-Class Tests: I expect you to take all of the in-class tests. If an *excused* absence causes you to miss a test, you must schedule a makeup exam with me **within 24 hours**. You must let me know that you will be missing the exam ASAP. If you miss a test due to an unexcused absence, you will in all likelihood receive a zero on that test.

Final Exam: The final exam is **12:30pm-3:00pm Saturday, August 4, 2017**. Taking the final exam is mandatory. Having the final rescheduled is extremely rare and is not permitted for reasons such as a plane ticket that was purchased earlier or attendance at weddings. If a makeup is requested, you must make arrangements beforehand.

Late Online Homework: Technical difficulties are always possible when working with computers so plan ahead and get your online homework done early! I will not grant extensions for online homework.

Academic Integrity: Students are expected to act in accordance with the *University of South Carolina Honor Code*, which can be found here: <https://www.sa.sc.edu/academicintegrity/honor-code-policy-information/>. **Any breach of the Honor Code will result in an F for the course.**

Where to Get Additional Help: There are Teaching Assistants available to answer your questions in the Math Tutoring Center in LeConte College room 105. The hours will be posted on the door. This is an excellent resource! Try to form a study group to study to learn with; it really works for some people. Don't forget about me! I am available during office hours and by appointment to answer any question you may have. The [Academic Success Resources](#) website also has additional information on resources available to students.

Tentative Course Outline

Class #	Date	Text Section	Topic
1	Monday, June 25, 2018	1.1, 1.2	Functions, Linear Functions
2	Tuesday, June 26, 2018	1.3, 1.4	Rates of Change, Applications in Economics
3	Wednesday, June 27, 2018	1.5, 1.6, 1.7	Exponential Functions, Natural Logarithm, Exponential Growth & Decay
4	Thursday, June 28, 2018	1.7, 1.8, 1.9	Exponential Growth and Decay; New Functions From Old, Proportionality and Power Functions
5	Monday, July 2, 2018		Catch up & Review
6	Tuesday, July 3, 2018		Test #1
7	Wednesday, July 4, 2018	Independence Day Holiday (No Classes)	
8	Thursday, July 5, 2018	2.1, 2.2	Instantaneous Rate of Change; The Derivative Function
	Monday, July 9, 2018	2.3, 2.4	Interpretations of the Derivative; Second Derivative
9	Tuesday, July 10, 2018	2.5, 3.1, 3.2	Marginal Cost & Revenue, Power Rule for Differentiation, Logarithmic & Exponential Functions
10	Wednesday, July 11, 2018	3.3, 3.4	The Chain Rule, Product & Quotient Rules
11	Thursday, July 12, 2018	4.1, 4.2	Local Maxima & Minima, Inflection Points
12	Monday, July 16, 2018	4.3/4.4	Global Maxima & Minima
13	Tuesday, July 17, 2018		Catch up & Review
14	Wednesday, July 18, 2018		Test #2
15	Thursday, July 19, 2018	5.1, 5.2/5.3	Distance & Accumulated Change, The Definite Integral
16	Monday, July 23, 2018	5.4, 5.5	Interpretations of the Definite Integral; The Fundamental Theorem of Calculus
17	Tuesday, July 24, 2018	6.1, 6.2	Antiderivatives
18	Wednesday, July 25, 2018	6.6	Integration by Substitution
19	Thursday, July 26, 2018	6.3	Using the Fundamental Theorem to Compute Definite Integrals
20	Monday, July 30, 2018		Review
21	Tuesday, July 31, 2018		Test #3
22	Wednesday, August 1, 2018	5.6, 6.4	Average Value, Consumer and Producer Surplus
23	Thursday, August 2, 2018		Review
	Saturday, August 4, 2018		Final Exam

NOTE: I will try not to make changes to the syllabus during the course of the semester. However, if changes are necessary then they will be announced both in class and on Blackboard/course webpage and the revised syllabus will be posted on Blackboard/course webpage.