

Syllabus - MATH 105-01 - Calculus for Business and Social Science, Spring 2017

Course Information

Instructor: Dr. Justin T. Webster

Lecture: T, R; Sec. 01 - 3:05–4:20pm, Jewish Studies Center 223;

Text: Wright, Hurd, and New, Essential Calculus, 2nd Ed.

(Hawke's Essential Calculus Software Code Required)

Course Website: <http://websterj.people.cofc.edu/JustinsHomepageForStudents.html>

Office Hours: T, 4:30–5:30pm; W, 10:00–11:30am; R, 12:00–1:30pm; and by appt.*

Course Objectives: To introduce the basic concepts of calculus and its applications to students in various disciplines who are not planning to major in STEM areas.

This is a three credit-hour course which is designed to introduce the basic concepts of calculus as applied to business, economics, and life sciences. It is an application-oriented course. It is not intended for those majoring in mathematics or natural sciences. **This course assumes facility with pre-calculus concepts, including: functions, graphs and graphing, polynomials, rational and root functions, solving algebraic equations, and exponents.**

Prerequisites: Math 101 or placement.

The following are the course policies, which may be changed at any time; *changes will be announced in class.*

Contacting Me: I will typically be in my office during office hours. If I am not, I will post a note on my door. The best way to contact me is via email. I will respond within 24 hours, but do not expect an immediate response. **Please schedule all appointments (outside of office hours) through e-mail, with at least 24 hour notice.* Students are responsible for all announcements made in class, and any e-mail sent to the primary CofC email account! Announcements and files to download will be posted on the course website (listed above), and sometimes on OAKS (the College's central information system, via MyCharleston). Please check these sources often. (I recommend checking the course website—via my homepage—every other day.)

Assignments: Weekly online homework will be assigned, worked, and graded via Hawke's Online Learning Systems. To use the software you need to purchase an access code online with a credit card. The best way to do this is to purchase the bundle with your textbook. Use the following information to locate our section: <https://course.hawkeslearning.com/cofcesc/>. Type in your access code, then locate our section by my name, Justin Webster.

For online homework, late work will be penalized by 10% per day that it is late. After 5 days it can be completed any time thereafter for a maximum of 50%.

Quizzes: An in-class or take-home quiz will happen (approximately) every other week. It may be longer (30 min, a semi-test) or shorter (5 min, a basic comprehension check), depending on the material. Once material is covered in class, it is valid for quizzes, assignments, and exams. *No make-ups will be granted under any circumstance, but you will have the chance to earn up to two quiz drops. (See the handout.)*

Tests: There will be two 75 minute, in-class, mid-term tests. These tests can vary in format and will include both computational and conceptual questions. If a student must miss a test, a week's notification is necessary and required, including the reason for the absence (except, of course, for extenuating circumstances). Such request will be honored at my discretion (typically only in exceptional cases), with the details of the makeup test to be determined at that time.

The lowest test score will be replaced by the final exam score, if the latter is higher. The following test dates are **tentative** (except the final exam—see the next section).

Test 1 - Feb. 28th; **Test 2** - Apr. 13th;

Final Exam - Sec. 01: Tuesday, May 2, 4:00–7:00pm.

Final Exam: There will be a comprehensive final exam with a date and time determined by our class meeting time (see below). The date and time of the final are *absolutely* fixed, and only in the most extreme cases will arrangements be made to reschedule.

Calculator and Notes Policy: Books and notes are not allowed for any quizzes, tests, or the exam *unless explicitly stated otherwise*. Scientific or basic graphing calculators are permitted (and encouraged) on tests, quizzes, and homework. No calculators capable of symbolic manipulation (TI-89, 92, or other more advanced calculators) will be allowed on quizzes and tests. **Absolutely no calculator apps on hand-held devices are permitted.**

Grading: Grades will be assigned based on raw percentages in the standard 100 percent scale: A: ≥ 93 ; A-: [90, 93); B+: [87, 90); B: [83, 87); B-: [80, 83); C+: [77, 80); C: [73, 77) C-: [70, 73); D+: [67, 70); D: [63, 67); D-: [60, 63); F: < 60 .

During the semester, grades will not be rounded, and there will be no curve for tests or work. However, I reserve the right to adjust final grades based on factors such as attendance, participation, and demonstrated effort towards understanding the material. I also reserve the right to perform a “mean-shift” to the the final course distribution (always “upward”, if at all). The final grade breakdown is as follows:

Tests – 30% Final Exam – 30% Online Homework – 20% Quizzes/Activities – 20%

In this course I will assign midterm grades (which have no ultimate bearing) based on the following breakdown:

Test I – 50% Homework – 25% Quizzes/Activities – 25%

General Education Student Learning Outcomes: Students are expected to display a thorough understanding of the topics covered. In particular, upon completion of the course, students will be able to:

- Model phenomena in mathematical terms,
- Solve problems using these models,
- Demonstrate an understanding of the supporting theory behind the models apart from any particular application.

These outcomes will be assessed on the final exam.

Course Specific Student Learning Outcomes: Students are expected to display a thorough understanding of the topics covered. In particular, upon completion of the course, students will be able to:

- understand the prerequisite material from algebra and geometry
- understand the algebraic and geometric meanings of limits and derivatives
- use limits and derivatives to model instantaneous and continuous phenomena
- understand functions, graphs, and the meaning of their shapes
- understand elementary transcendental functions \ln and \exp and their algebraic, differential, and geometric properties
- use functions and graphs to model phenomena relevant to business and social science
- solve optimization problems

These outcomes will be assessed on homework, tests, quizzes, and the final exam.

Etiquette, Please: Make sure your cell phone is silent, and *do not use laptops or cell phones during class*. If in attendance, please commit to sitting through the entire lecture. Lastly, please comment and ask questions during the lecture by raising your hand.

Attendance: Attendance will be taken during the first two weeks for administrative purposes. Attendance is not mandatory, though quizzes will be given somewhat randomly. Attendance will not factor into the overall grade, but there are obvious ramifications for missing more than a couple class sessions.

Getting Help: *Do not wait to get help if you need it.* The smallest confusion can compound and have dire effects on one's understanding (and hence, grade). I strongly encourage each student to visit my office hours or make an appointment. Also, you can find information about the CofC Math Lab (and more generally, the center for student learning) at <http://csl.cofc.edu/labs/math-lab/> (located in the Addlestone Library).

I encourage you to utilize the Center for Student Learning's (CSL) academic support services for assistance in study strategies and course content. They offer free Learning: tutoring, Supplemental Instruction, study skills appointments, and workshops. Students of all abilities have become more successful using these programs throughout their academic career and the services are available to you at no additional cost. For more information regarding these services please visit the CSL website at <http://csl.cofc.edu> or call (843)953-5635.

Course Evaluations and Feedback: I take course evaluations seriously, and as such, I would ask that you complete them. Please provide objective and honest feedback through the OAKS system. I will provide around 15 minutes on the final day of class for you to complete course evaluations (though you may certainly complete them on your own time outside of class). Additionally, polite feedback about the course (during the semester) is encouraged.

Important Dates: Please be aware of the following dates:

MLK Day - Monday, Jan. 16

drop deadline - Wednesday, Jan. 18 ;

absence withdrawal date - Thursday, Feb. 9;

spring break - Mar. 6th–10th;

midterm grades available - Thursday, Mar. 16;

withdrawal deadline - Thursday, Mar. 23;

reading day - Thursday, Apr. 27;

last day of classes - Wednesday, Apr. 26;

finals - Apr. 28–Mar. 5;

Athletes, Veterans, and Other Considerations: If you are a NCAA or club sports athlete, or have *any* special circumstances, you should inform me as soon as possible. For veterans, certain additional resources may be available. Special accommodations can be made for scheduling and other specific needs on an individual basis. Please inform me of your situation as soon as possible.

For disability-related needs, documentation may be required. The College will make reasonable accommodations for persons with documented disabilities. Students should apply at the Center for Disability Services/SNAP (Students Needing Access Parity), located in the Lightsey Center, Suite 104. See <http://disabilityservices.cofc.edu/>. Students approved for accommodations are responsible for notifying me as soon as possible and for contacting me one week before accommodation is needed.

From SNAP: "We provide services and accommodations for students with disabilities (physical, psychological, learning or attentional) that have been documented by a qualified professional. Documentation must meet criteria published in the SNAP brochure and on our website <http://disabilityservices.cofc.edu>. Accommodations are decided on a case-by-case basis and are determined by the type and severity of the disability and the essential elements of the course the student is taking. Accommodations are designed to provide access to education and to circumvent or reduce the effect of the disability as much as possible, not to give an advantage or guarantee success."

Academic Integrity: Do not cheat! If I find out, I will make it extremely embarrassing for you; and otherwise, cheating makes you a bad person. The academic environment is hallowed, and by cheating you are taking advantage and "cheating" your institution, this class, and each of your fellow students. I do encourage students to work together, but do not copy from other students and read all directions on assignments and tests. Bear in mind that you are under the CofC Honor Code: <http://studentaffairs.cofc.edu/honor-system/studenthandbook/index.php>:

Lying, cheating, attempted cheating, and plagiarism are violations of our Honor Code that, when identified, are investigated. Each instance is examined to determine the degree of deception involved. Incidents where the professor believes the student's actions are clearly related more to ignorance, miscommunication, or uncertainty, can be addressed by consultation with the student. We will craft a written resolution designed to help prevent the student from repeating the error in the future. The resolution, submitted by form and signed by both the professor and the student, is forwarded to the Dean of Students and remains on file. Cases of suspected academic dishonesty will be reported directly to the Dean of Students. A student found responsible for academic dishonesty will receive a XF in the course, indicating failure of the course due to academic dishonesty. This grade will appear on the student's transcript for two years after

which the student may petition for the X to be expunged. The student may also be placed on disciplinary probation, suspended (temporary removal) or expelled (permanent removal) from the College by the Honor Board. It is important for students to remember that unauthorized collaboration—working together without permission— is a form of cheating. Unless a professor specifies that students can work together on an assignment and/or test, no collaboration is permitted. Other forms of cheating include possessing or using an unauthorized study aid (such as a PDA), copying from another's exam, fabricating data, and giving unauthorized assistance. Remember, research conducted and/or papers written for other classes cannot be used in whole or in part for any assignment in this class without obtaining prior permission from the professor.