

MA 141-001: CALCULUS 1
NORTH CAROLINA STATE UNIVERSITY - SUMMER 1 2020

Problem Session 1: Tuesdays 5:00-5:50pm
Problem Session 2: Thursdays 5:00-5:50pm

1 IMPORTANT DETAILS

- Instructor: Ms. Toryn Avery
- Office Hours: Monday, Tuesday, Wednesday 4:00-5:00pm via Zoom, or by appointment. **Please see Zoom Instructions at the end of the syllabus.**
- Email: teavery@ncsu.edu

Please be respectful and professional during class and when sending emails. Via email, please identify yourself and the class clearly. Your subject line should include the course and section number (*MA 141-001*) as well as the reason for emailing (e.g. *HW # 2.1 Problem 2*). In the email itself, you should include what you have already attempted to do to resolve the issue along with your question.

- Textbook: Calculus for Engineers and Scientists, Volume 1 by John E. Franke, John R. Griggs, and Larry K. Norris, First Edition (**Required**). The textbook is available as an electronic-book through WebAssign. I expect you to read sections of the textbook around the time of lectures. The homework in WebAssign correlates to the exercises in the textbook.
- WebAssign: Purchase WebAssign Access Code for textbook and homework assignments: <http://webassign.ncsu.edu> WebAssign *Resources* tab → textbook. WebAssign *Assignments* tab → homework.
- Moodle: Link to our course Moodle page: <https://wolfware.ncsu.edu>. Any announcements posted on the Moodle page will also be sent to your NC State email address. Please check your email notification settings in Moodle to ensure that you receive course announcements, and please check your NC State email often.

2 COURSE DETAILS

2.1 Course Description.

MA 141 is a 4-credit hour course.

- First of three semesters in a calculus sequence for science and engineering majors. Functions, graphs, limits, derivatives, rules of differentiation, definite integrals, fundamental theorem of calculus, applications of derivatives and integrals. Credit is not allowed for both MA 141 and MA 121 or MA 131.
- Prerequisites: MA 111 or MA 108 with grade of C- or better, or 550 or better on the SAT Subject Test in Mathematics Level 2 or the NCSU Math Skills Test, or 2 or better on an AP Calculus exam.

2.2 Structure.

- Lecture videos: The lecture videos for this course were recorded during the Fall 2016 semester (15-week session) in a classroom on campus. You may access these videos through the link on our course Moodle page. I expect you to follow the schedule outlined in the “**Tentative Schedule**” section of the syllabus. Please ensure that you **watch videos 1 - 23 (up to time 33:00 in video 23) before Test 1, videos 23 (starting at time 33:00) through 45 before Test 2, videos 46-59 before Test 3, and watch the remaining videos before the Final Exam.**
- Problem Sessions: Problem sessions will be held twice a week via Zoom. **Please see Zoom instructions at the end of the syllabus.** These sessions will cover supplementary material to the lecture videos, example exercises based on content from the lecture, and homework problems. Each session will be recorded and posted to the course Moodle site. These sessions are not mandatory to attend, but will be essential to your success in the course. You will have the chance to ask your own questions regarding lecture videos, homework problems, and general course material.
- Homework: Once WebAssign Access Code is purchased, homework is obtained and submitted online by the posted due dates on the course WebAssign site. Each WebAssign homework assignment is due online by 11:50pm on the posted due date. I will update these due dates as we progress through the course material. I *highly recommend* keeping a written copy of your work for each homework problem. It is important that you keep up with this work and not save it for the last minute; the system can be finicky, but more importantly, timely completion will help your understanding. If needed, extensions may be available, but there is a small penalty to help motivate you to keep up with your work in a timely manner. **Do note, when calculating your final homework grade, the total will be taken out of 1500 points (there are 1656.6 total points available in WebAssign).**
- Tests: Three online take-home exams will be posted and available through our course Moodle site:
 - **Friday, May 22, 2020**
 - **Wednesday, June 3, 2020**
 - **Wednesday, June 11, 2020**

These exams will be posted and due on the day of the exam. Each exam will be open-book/open-notes, but you may not use any internet resources other than our course Moodle and WebAssign pages. You will be required to handwrite your solutions and submit them via Moodle as a pdf. More detailed instructions will be included on each exam sheet.

- Final Exam: **Wednesday June 17, 2020.** The final exam is comprehensive and will cover all course material. The final exam will also be an online take-home exam that will be posted and available through the course Moodle site.

2.3 Attendance Policy.

Attendance will not be taken for this course. However, it is highly encouraged that you attend each problem session, if possible. Due to the online nature of this course, we will schedule all sessions and office hours at times that are most convenient for the most people. You may also be encouraged to make forum posts to the course Moodle page.

2.4 Grading.

This course will use the following letter grading cutoffs:

A+	97-100	A	93-96.9	A-	90-92.9
B+	87-89.9	B	83-86.9	B-	80-82.9
C+	77-79.9	C	73-76.9	C-	70-72.9
D+	67-69.9	D	63-66.9	D-	60-62.9
		F	0-59		

Satisfactory/Unsatisfactory and Audit grading per University policy. **Grades will not be curved.** Your grade depends only on *your* performance, *not* on how everyone else in the class performs. Your final grade will be determined by the following grading scale:

WebAssign Homework	20%
3 Tests	50% (16.67% each)
Final Exam	30%

2.5 Grading Disputes.

Answer keys for all tests will be posted on Moodle once all exams are graded and returned. If a grading error is found after looking at the posted answer key, then you should provide a **written explanation of the error, attached with the original test**, to Ms. Toryn Avery within **2 class days** after the exam was returned. **Do not alter the original work.** The entire exam may be re-graded, and the grade is subject to remain the same, increase, or decrease.

2.6 Exam Make-up Policy.

If an exam is missed with an excused absence (i.e. for a university-approved reason, with supporting documentation), your final exam grade will replace this test grade. If an exam is missed for an unexcused absence, that exam will be given a score of 0. No make-ups will be allowed. Documentation for an excused absence must be provided within two days of the test date.

2.7 Tentative Schedule.

Date	Text Section	Topic
5/13 W1	Sec 0.1, 0.2, 0.3	Overview of course and review precalculus sections
5/14 W1	Sec. 0.4, 1.1	Parametric Equations and Introduction to Limits
5/15 W1	Sec 1.2, 1.3	Limits and Continuity
5/18 W2	Sec 1.4	Instantaneous velocity and Review
5/19 W2	Sec 2.1, 2.2	Instantaneous rate of change and the derivative
5/20 W2	Sec 2.3, 2.4	Rules of Derivatives
5/21 W2	Sec 2.5	Chain Rule and Review
5/22 W2	Sec 0.1 - 2.5	Test #1
5/26 W3	Sec 2.6	Implicit Differentiation and more Derivatives
5/27 W3	Sec 2.7	Related Rates
5/28 W3	Sec 3.1 & 3.6	Newton's Method, Linearization and Differentials
5/29 W3	Sec 3.2, 3.3	Derivatives and Graphing
6/1 W4	Sec 3.4	Optimization
6/2 W4	Sec 3.5	L'Hopital's Rule
6/3 W4	Sec 2.6 - 3.6	Test #2
6/4 W4	Sec 4.1 - 4.2	Areas and Definite Integrals
6/5 W4	Sec 4.3	Fundamental Theorem of Calculus
6/8 W5	Sec 4.4	Integration by substitution
6/9 W5	Sec 4.5	Integration by parts
6/10 W5	Sec 4.1 - 4.5	Review
6/11 W5	Sec 4.1 - 4.5	Test #3
6/12 W5	Sec 5.1	Areas between curves
6/15 W6	Sec 5.2	Volumes
6/16 W6		Review
6/17 W6	All Sections	Final Exam - covers entire semester

Our tentative schedule represents a flexible agreement. It outlines the topics we will cover and the order in which we will cover them. The pace of the class depends on student mastery and interests. Thus, minor changes to the syllabus can occur if we need to slow down or speed up the pace of instruction. As the semester progresses, modifications to the course syllabus will be available on the course Moodle page.

3 MISCELLANEOUS**3.1 Disability Services.**

Reasonable accommodations will be made for students with verifiable disabilities. In order to take advantage of available accommodations, students must register with the Disability Resource Office at Holmes Hall, Suite 304, 2751 Cates Avenue, Campus Box 7509, 919-515-7653. For more information on NC State's policy on working with students with disabilities, please see <http://policies.ncsu.edu/regulation/reg-02-20-01>.

3.2 Code of Student Conduct.

This will be upheld, and documentation will be submitted to the Office of Student Conduct for students who violate University regulations on academic integrity. Your name or signature on

any test, assignment, or other online submission indicates your adherence to the NC State Honor Pledge: “I have neither given nor received unauthorized aid on this test or assignment.” See <http://policies.ncsu.edu/policy/pol-11-35-01> for a detailed explanation of academic honesty.

3.3 Non-Discrimination Policy.

NC State provides equal opportunity and affirmative action efforts, and prohibits all forms of unlawful discrimination, harassment, and retaliation that are based upon a persons race, color, religion, sex, national origin, age, disability, gender identity, genetic information, sexual orientation, or veteran status. NC State’s policies and regulations covering discrimination, harassment, and retaliation may be accessed at <http://policies.ncsu.edu/policy/pol-04-25-05>. Any person who feels that he or she has been the subject of prohibited discrimination, harassment, or retaliation should contact the Office for Equal Opportunity.

3.4 Diversity and Inclusivity.

Diversity and inclusivity are important to the success of our students at NC State. Everyone who comes to NC State enriches us through their varied perspectives, knowledge, and backgrounds. Our classroom is one in which every student is respected and feels heard.

In an effort to affirm and respect the identities of transgender students in the classroom and beyond, please contact me if you wish to be referred to using a name and/or pronouns other than those listed in the student directory.

3.5 Supporting Fellow Students in Distress.

As members of the NC State Wolfpack community, we each share a personal responsibility to express concern for one another and to ensure that this classroom (as well as the campus as a whole) remains a healthy and safe environment for learning. Occasionally, you may come across a classmate whose personal behavior concerns or worries you, either for your classmates well-being, for your well-being, or for the well-being of others. When this is the case, I would encourage you to report the behavior on the link located on NC States Students of Concern website <https://prevention.dasa.ncsu.edu/nc-state-cares/about/>.

4 Zoom Instructions

4.1 Downloading Zoom

- You can access your NCSU Zoom account here (use your NCSU login): <https://ncsu.zoom.us>.
- The first time any user runs Zoom, they will be prompted to download the program if it has not already been downloaded.
- If you would like to manually download it, you can use the link below (the download will start immediately):
<https://zoom.us/client/latest/Zoom.pkg>

- If you download the Zoom app or click on the Zoom program on your computer, you may need to Sign In. To do this effectively, click “Sign In” with Google and then use your NCSU unity ID login.

4.2 Joining a Zoom Meeting:

- In general, it is very easy to join a Zoom meeting, and I would recommend starting and joining meetings through the Meeting link on Moodle rather than by opening the program and signing in.
- To join office hours
 - Click “Online Office Hours” or “Online Problem Session”
 - Click “Join link” or “Start Meeting”
 - When asked “Do you want to allow this page to open “zoom.us”? Click Allow. (The program may need to download at this point.) You should now be in the meeting.
- I recommend that you use computer audio and mute yourself whenever you are not speaking.
- You are not required to use your webcam.
- If you prefer, you can also type questions/concerns/comments in the chat window.