

MA 121-051: Elements of Calculus

10 Week Summer 2022

SAS 1216, TuTh 5:30-7:25pm

Instructor: Emma Kathryn Groves

Office: SAS 3215

Email: ekgroves@ncsu.edu

Office Hours: MW 9-10am (on Zoom), TuTh 7:30-8:00pm or by appointment

Prerequisite

MA 107, MA 111, or equivalent. Credit is not allowed in more than one of MA 121, 131, 141. MA 121 may not be substituted for MA 131 or MA 141 as a curricular requirement

Course Description

(3-credits) A single semester calculus course. Emphasis on concepts and applications of calculus and basic skills. Algebra review, functions, graphs, limits, derivatives, integrals, logarithmic and exponential functions, functions of several variables, applications in management, and applications in biological and social sciences.

Learning Objectives

By the end of this course students should be able to:

1. Differentiate simple and more complex functions
2. Apply rules of differentiation
3. Maximize and minimize functions of single and multiple variables
4. Integrate functions and apply several techniques of integration
5. Perform complex analysis of functions
6. Apply calculus methods to basic real-world problems

Course Website

We will be using the *Moodle* learning management system (<http://wolfware.ncsu.edu>) for this course. You will login using your Unity ID and password. After the beginning of the semester, you will see a link to our course site. Once in the site, you can Bookmark or add the site as a favorite in your web browser so that you can return directly to that page.

Course Communications

Modes of communication in use for this course include email, office hours, and Moodle discussion forums.

- Moodle discussion forums will be used to facilitate class discussion. Check these forums often and please feel free to reply to your fellow students' posts.
- I will do my best to respond to weekday e-mails and posts within 24 hours. Email messages or posts left after 4 pm Friday will be responded to by the following Monday.
- If you would like to speak with me and you can't make it to my posted office hours, please check my appointment calendar (link on Moodle). If there are no open appointments that fit with schedule, please send me an email including several possible meeting times.

Please be aware that ALL email communications for this course will be sent to your NCSU

unity email or via Moodle. If you do not regularly use your ncsu.edu account, there are settings within Gmail that allow you to forward your e-mail to another account. For more information see: <https://oit.ncsu.edu/my-it/email-calendaring/email-forwarding/> (opens in new window).

Lectures

Lectures will be given in person Tuesdays and Thursdays from 5:30-7:25pm. The lectures will be automatically recorded using Panopto. Students can view the recorded lectures at: <https://ncsu.hosted.panopto.com/Panopto/Pages/Sessions/List.aspx#folderID=5a1b8ef9-e76a-4cd8-b93d-ae890106e744>

Please be advised this course is being recorded for current and potential future educational purposes. By your continued participation in this recorded course, you are providing your permission to be recorded.

Attendance

Attendance will be taken daily. Your attendance will be recorded in one of two ways

- If you are in class, I will record your attendance and post it on Moodle.
- If you are watching the recording later, I will give an attendance passcode at some point in the lecture. You are responsible for recording your own attendance on Moodle using the passcode within 72 hours of the class.

If you miss 3 or less classes 5% points will be added to your WebAssign grade.

Attendance is required according to university policy. For complete attendance and excused absence policies, please see <https://policies.ncsu.edu/regulation/reg-02-20-03-attendance-regulations/>.

Textbook

Bittinger, M. L., Calculus and its Applications (11th ed.). You can find the link on the Moodle page.

WebAssign

The WebAssign homework assignments are obtained, submitted, and graded online. Note that your end-of-semester WebAssign average will be the total number of points you earned divided by the possible number of points. This means some assignments with many possible points are worth a larger percentage of your grade.

To access WebAssign you will need to log into your Cengage account (or create an account) and enter the class key: **ncsu 9408 4189**. Note that this class key is case sensitive, and the spaces are also required for it to work properly. To log onto WebAssign go to <http://webassign.net>. Do not create a new account if you already have a Cengage account. Please read the document on Moodle titled “Using WebAssign for NCSU Math Classes” for detailed instructions.

If you have a question a problem on WebAssign please use the “Homework Q&A” forum on WebAssign. If you email me a question about the homework I think other people may

benefit from hearing I may copy your question (anomalously) and put it in the forum.

Tests

Four 90-minute tests will be given. The lowest test grade will be dropped.

- Test 1: Thursday, June 2nd
- Test 2: Thursday, June 16th
- Test 3: Thursday, July 7th
- Test 4: Thursday July 21st

If an exam is missed with an excused absence (i.e., for a university-approved reason, with supporting documentation), then a make-up test will be scheduled individually. 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 1 week of the missed class. All absences that require a make-up exam or other special accommodations must go through the NCSU absence verification process; here is the link to that office:

<https://dasa.ncsu.edu/students/absence-verification-process/>

Final Exam

The final exam is on Monday, August 1st 7:00-9:30pm and will cover all material.

Calculators

You may use a scientific calculator on exams. These calculators must have no graphing or differentiation/integration abilities. If you are unsure if your calculator is allowed, see me.

Grading

Your grade will be determined by the following breakdown:

- Homework: 15%
- Tests 1-4: 60% (20% each)
 - Lowest test grade dropped.
- Final Exam: 25%

A student's numerical average will be converted to a letter grade as follows (do not expect any additional rounding or curves):

Table 1: Grade Distribution

A+	97 - 100	A	93 – 96.99	A-	90-92.99
B+	87 – 89.99	B	83-86.99	B-	80-82.99
C+	77 – 79.99	C	73-76.99	C-	70-72.99
D+	67 – 69.99	D	73-76.99	D-	70-72.99
F	0-59	-	-	-	-

Grade Disputes

Answer keys for all tests will be posted on Moodle when the exams are returned. If a grading error is found after looking at the posted answer key, then you should **provide a written explanation of the error emailed to the instructor within 1 week of the exam**

being returned. Do not alter the original work. The entire test maybe re-graded and the test grade is subject to remain the same, increase or decrease at the discretion of the instructor.

Diversity, Equity, and Inclusion

Diversity, equity, and inclusion are important to the success of our students at NC State. Every student, every faculty member, and every staff member 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.

I welcome any suggestions you have for making our classroom more welcoming and inclusive.

Disability Services

Reasonable accommodations will be made for students with verifiable disabilities. To receive accommodations, students must register with Disability Services for Students at 1900 Student Health Center, Campus Box 7509, 919-515-7653. Here is their link: <https://dro.dasa.ncsu.edu/> (opens in new window). For more information on NC State's policy on working with students with disabilities, please see the [Academic Accommodations for Students with Disabilities Regulation \(REG02.20.01\)](#). You must discuss accommodations with me *prior* to a test date.

Academic Integrity

Students are required to comply with the university policy on academic integrity found in the Code of Student Conduct: <http://policies.ncsu.edu/policy/pol-11-35-01>. Your signature on any test or assignment indicates "I have neither given nor received unauthorized aid on this test or assignment." Violations of academic integrity will be handled in accordance with the Student Discipline Procedures ([NCSU REG 11.35.02](#)).

Requirements for Credit-Only (S/U) Grading

In order to receive a grade of S, students are required to take all exams, complete all assignments, and earn a grade of C- or better. Conversion from letter grading to credit only (S/U) grading is subject to university deadlines. Refer to the Registration and Records calendar for deadlines related to grading. For more details refer to <http://policies.ncsu.edu/regulation/reg-02-20-15>.

Requirements for Auditors (AU)

Information about and requirements for auditing a course can be found at <http://policies.ncsu.edu/regulation/reg-02-20-04>.

Policies on Incomplete Grades

If an extended deadline is not authorized by the instructor or department, an unfinished incomplete grade will automatically change to an F after either (a) the end of the next regular semester in which the student is enrolled (not including summer sessions), or (b) the end of 12

months if the student is not enrolled, whichever is shorter. Incompletes that change to F will count as an attempted course on transcripts. The burden of fulfilling an incomplete grade is the responsibility of the student. See the university policy on incomplete grades:

<http://policies.ncsu.edu/regulation/reg-02-50-3>

Non-Discrimination Policy

NC State University provides equality of opportunity in education and employment for all students and employees. Accordingly, NC State affirms its commitment to maintain a work environment for all employees and an academic environment for all students that is free from all forms of discrimination. Discrimination based on race, color, religion, creed, sex, national origin, age, disability, veteran status, or sexual orientation is a violation of state and federal law and/or NC State University policy and will not be tolerated. Harassment of any person (either in the form of quid pro quo or creation of a hostile environment) based on race, color, religion, creed, sex, national origin, age, disability, veteran status, or sexual orientation also is a violation of state and federal law and/or NC State University policy and will not be tolerated. Retaliation against any person who complains about discrimination is also prohibited. NC State's policies and regulations covering discrimination, harassment, and retaliation may be accessed at <http://policies.ncsu.edu/policy/pol-04-25-05> or http://www.ncsu.edu/equal_op/. 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 (OEO) at 919-515-3148.

Copyrighted Materials

The course website contains copyrighted materials and was developed for instructional purposes to be used by students at North Carolina State University. Students currently registered in this course are permitted to print or make copies of parts of this site for their own personal use in conjunction with completing the course. Text, audio files, images or design of this website may not otherwise be distributed or modified in any manner without the prior written permission of the instructor.

NC State Rules and Regulations

Students are responsible for reviewing the NC State University Policies, Rules, and Regulations (PRRs) which pertain to their course rights and responsibilities, including those referenced both below and above in this syllabus:

- Equal Opportunity and Non-Discrimination Policy Statement <https://policies.ncsu.edu/policy/pol-04-25-05> with additional references at <https://oied.ncsu.edu/divweb/policies/>
- Code of Student Conduct <https://policies.ncsu.edu/policy/pol-11-35-01>.

COVID-19 Related Issues

Due to the COVID-19 pandemic, public health measures continue to be implemented across campus. Students should stay current with these practices and expectations through the [Protect the Pack](https://www.ncsu.edu/coronavirus/) website (<https://www.ncsu.edu/coronavirus/>). The sections below provide expectations and conduct related to COVID-19 issues.

Health and Participation in Class

We are most concerned about your health and the health of your classmates and instructors/TAs.

- If you test positive for COVID-19, or are told by a healthcare provider that you are presumed positive for the virus, you should not attend any hybrid or face-to-face (F2F) classes and work with your instructor on any adjustments necessary; also follow other university guidelines, including self reporting ([Coronavirus Self Reporting](#)): Self-reporting is not only to help provide support to you, but also to assist in contact tracing for containing the spread of the virus.
- If you feel unwell, even if you have not been knowingly exposed to COVID-19, please do not come to a F2F class or activity.
- If you are in quarantine, have been notified that you may have been exposed to COVID-19, or have a personal or family situation related to COVID-19 that prevents you from attending this course in person (or synchronously), please connect with your instructor to make alternative plans, as necessary.
- If you need to make a request for an academic consideration related to COVID-19, such as a discussion about possible options for remote learning, please talk with your instructor.

Health and Well-Being Resources

These are difficult times, and academic and personal stress are natural results. Everyone is encouraged to [take care of themselves](#) and their peers. If you need additional support, there are many resources on campus to help you:

- Counseling Center ([NCSU Counseling Center](#))
- Student Health Services ([Health Services | Student](#))
- If the personal behavior of a classmate concerns or worries you, either for the classmate's well-being or yours, we encourage you to report this behavior to the NC State CARES team: ([Share a Concern](#)).
- If you or someone you know are experiencing food, housing or financial insecurity, please see the Pack Essentials Program ([Pack Essentials](#)).

Community Standards related to COVID-19

We are all responsible for protecting ourselves and our community. Please see the [community standards](#) (which have been updated for 2021) and Rule 04.21.01 regarding Personal Safety Requirements Related to COVID-19 [RUL 04.21.01 – Personal Safety Requirements Related to COVID-19 – Policies, Regulations & Rules](#)