

MA 121-001: Elements of Calculus Summer I 2020

Instructor

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Course Description

For students who require only a single semester of calculus. Emphasis on concepts and applications of calculus, along with basic skills. Algebra review, functions, graphs, limits, derivatives, integrals, logarithmic and exponential functions, functions of several variables, applications in management, applications in biological and social sciences. 3 credit hours.

Prerequisite

MA 107 or 111 with a C- or better, or 480 on the SAT Subject Test in Mathematics Level 2 or the NCSU Math Skills Test, or 2 or better on an AP Calculus exam.

Learning Objectives

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

1. Find the derivative of a function using various differentiation techniques
2. Use the first and second derivative tests to sketch curves.
3. Solve definite and indefinite integrals
4. Use derivatives and integrals in various applications and word problems.

Communication

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

- Mass communications to the entire class will be done exclusively on Moodle. Make sure you are checking the “Announcements” forum on Moodle multiple times a week.
- If you have a question about the homework that the whole class may benefit from hearing, please post on the “Homework Q&A” forum. I will check this forum often to respond to open questions. You should also check frequently to answer or ask questions.
- I will do my best to respond to weekday e-mails and posts within 24 hours. Email messages or posts left after 2 pm Friday will be responded to by Monday evening.
- If you would like to speak with me via Zoom and you can't make it to the posted office hours, please email me to schedule a time that is convenient. Include several time slots that would work for you in your email.
- If you have a question that is very specific to the work you have done (i.e. if you nearly finished your work but got stuck towards the end), you can email me with your question. Including a scan or photo of your work can help. If I receive an email with a question more appropriate to the forum, I may copy and paste the

question there without identifying the student who sent it.

Lectures

During a normal summer, this class meets every day for 90 minutes. Therefore, I will host Zoom lectures MTuWThF from (Time:TBD). I will be recording these lectures, and by joining the lecture you consent to being recorded. I know not everyone will be able to attend these lectures, thus I will post the recorded lectures on Moodle afterwards. The lectures are optional to attend but not optional to watch. I will also post the lecture notes on Moodle.

Text

The text book for this class is Calculus and Its Applications (11th ed.) by Bittinger, Ellenbogen, and Sargent. This class is taking part in NC State's All-In program. You can choose to have course materials delivered electronically on my Moodle site. You have free access to materials through the drop/add date. You must purchase access during that time using the link on my Moodle page to the bookstore's website. If you do not purchase access by the drop/add date, YOU WILL LOSE ACCESS TO THE COURSE MATERIALS and will then have to acquire the materials through another source.

Materials

WebAssign Access Code. You will need to make sure you are at [NC State's WebAssign](https://www.webassign.net/ncsu/login.html) (opens in new window); URL: <https://www.webassign.net/ncsu/login.html>. Log in using Unity ID and password. You will be prompted to purchase a code within 10 days. If you are having trouble accessing WebAssign, contact me as soon as possible.

Technology

Course assignments will be delivered over Moodle and WebAssign. Lectures and office hours will be hosted via Zoom. Additionally, lectures will be recorded and uploaded to MediaSite with links to the videos on Moodle. In order to be successful in this class students at a minimum will need access to the internet and a computer that allows them to watch lecture videos. It is also recommended that you have a way to join Zoom for either lectures or office hours.

Students will also need to take scan or take pictures of their exams and upload them to Moodle. Here are some helpful links on using your smart phone to convert a picture to a PDF:

- [iOS device instruction](https://wp.math.ncsu.edu/it/scan-documents-withios/) [URL: <https://wp.math.ncsu.edu/it/scan-documents-withios/>]
- [Android device instruction using google drive](https://support.google.com/drive/answer/3145835?co=GENIE.Platform%3DAndroid&hl=en&oco=0) [URL: <https://support.google.com/drive/answer/3145835?co=GENIE.Platform%3DAndroid&hl=en&oco=0>]

Homework

All homework are obtained, submitted, and graded online via WebAssign. Collaboration with fellow classmates is allowed and encouraged, but you must understand the answers you submit. WebAssign homework is due the day of the exam corresponding to the material. It is very important to keep up with this work and not save it for the last minute. I highly recommend you start homework as soon as we cover the material in class. I also recommend that you print each assignment and work it with pencil and paper before

submitting: you will be required to show all work on exams, and homework is great practice! I will keep a chart, updated daily, that indicates for which WebAssign assignments we have covered the material. If you have a question about the homework that the whole class may benefit from hearing, please post on the “Homework Q&A” forum.

Tests and Exam Dates

Test #1: Thursday, May 21st

Test #2: Tuesday, June 2nd

Test #3: Thursday, June 11th

Final Exam: Wednesday, June 17th or Thursday, June 18th

***You can only change the exam time if you have 3 within 24 hours and approval through the registrations office and the math department. Find out early if you need to move an exam; it must go through the proper channels to change the date.*

Testing Policies

All tests are open book and open note and you may use a non-graphing calculator. Graphing calculators and the internet are not allowed. See the “Testing Procedure” document on Moodle for detailed explanation of how tests will work.

Grading

This course uses standard NCSU letter grading, with no rounding.

97 ≤ A+ < 100

87 ≤ B+ < 90

77 ≤ C+ < 80

67 ≤ D+ < 70

0 ≤ F < 60

93 ≤ A < 97

83 ≤ B < 87

73 ≤ C < 77

63 ≤ D < 67

90 ≤ A- < 93

80 ≤ B- < 83

70 ≤ C- < 73

60 ≤ D- < 63

Your grade will be determined with the following:

Table 1: Grade Breakdown

Grade Component	Weight	Details
WebAssign Homework	15%	Homework will be done through WebAssign and will be due frequently.
In-Class Tests	60%	There will be three in-class tests, each worth 20% of your grade.
Final Exam	25%	Given on Friday, May 1 st 8am-11am

Exam Make-up Policy

Exam make-ups are administered in accordance with University policy. Anticipated,

excused absences (such as NCSU obligations, required court attendance, and religious observance) must be reported to the instructor with appropriate certification well before the scheduled test date. Legitimate emergency absences must be reported with appropriate documentation within one week of returning to class. No other make-ups will be given.

Corrections to Grading

If you think an error may have been made in the grading of your exam, carefully review the answer key posted on Moodle and then contact the instructor within 1 week of the exam's return with your question. Do NOT alter the original work.

Getting Help

Students must take responsibility for their learning and seek help when needed. Communication with the instructor is essential to your success. We want to help. There is tutoring available through the [Undergraduate Tutorial Center](#) (opens in new window); URL: <https://tutorial.dasa.ncsu.edu/>.

Code of student conduct

Documentation will be submitted to the Office of Student Conduct for students who violate the University Regulations on academic integrity. There can be no graphing calculators used on the tests. No help from any other sources than your own head is allowed during tests (hopefully this is obvious – you are expected to show all your work on your tests papers).

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](#) (opens in new window); URL: <http://policies.ncsu.edu/regulation/reg-02-50-3>.

Accommodations for Disabilities

Reasonable accommodations will be made for students with verifiable disabilities. In order to take advantage of available accommodations, students must register with the Disability Services Office at Suite 2221, Student Health Center, Campus Box 7509, 919-515-7653. For more information on NC State's policy on working with students with disabilities, please see the [Academic Accommodations for Students with](#)

[Disabilities Regulation\(REG02.20.01\)](#) (opens in new window);

URL: <https://policies.ncsu.edu/regulation/reg-02-20-01/>.

Academic Integrity

Students are required to comply with the university policy on academic integrity found in the [Code of Student Conduct](#) (opens in new window); URL:

<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."

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

Tentative Schedule (Subject to Change)

Table 2: Schedule

Date	Sections
5/13/20	R.1, R.2
5/14/20	R.3, R.4
5/15/20	R.5, 1.1
5/18/20	1.2, 1.3
5/19/20	1.4, 1.5
5/20/20	1.6, Review
5/21/20	TEST 1
5/22/20	1.7, 1.8
5/25/20	Memorial Day, no lecture
5/26/20	2.1, 2.2
5/27/20	2.3, 2.4
5/28/20	2.5, 3.1
5/29/20	3.2, 3.3
6/1/20	3.4, Review
6/2/20	TEST 2
6/3/20	3.5, 4.1
6/4/20	4.2, 4.3
6/5/20	4.4, 4.5
6/8/20	5.1, 5.2
6/9/20	5.3, 5.6
6/10/20	5.7, Review
6/11/20	TEST 3
6/12/20	6.1, 6.2
6/15/20	6.3, 6.4
6/16/20	Review