TEXT: A TRANSITION TO ADVANCED MATHEMATICS

By Smith, Eggen & St. Andre, 8th edition

INSTRUCTOR: R. FULP

OFFICE HOURS: I check my e-mail Monday-Friday shortly before 8:00 AM. I will try to respond to questions then and at other times. I will also check my e-mail from time to time throughout the day

E-MAIL: fulp@math.ncsu.edu

Essential Course Content

Chapter 1 Logic and Proof
  Propositions and Connectives
  Conditionals and Biconditionals
  Quantifiers
  Proofs

II. Chapter 2: 2.1-2.5 Set Theory
  Basic Ideas
  Set Operations
  Extended Set Operations
  Mathematical Induction

III. Chapter 3: 3.1-3.3 Relations
  Cartesian Products
  Relations
  Equivalence Relations

IV. Chapter 4: 4.1-4.4 Functions
  Functions as Relations
  Construction of Functions
  1-1 and onto Functions
V. Chapter 5: 5.1-5.3 Cardinality
    Finite and Infinite Sets
    Countable and Uncountable Sets

FURTHER DETAILS:

HOMEWORK IS ASSIGNED VIA MOODLE

THERE WILL BE TWO TESTS AND A FINAL EXAM

GRADING
HOMEWORK WILL COUNT 25 %
EACH TEST WILL COUNT 25 %
THE FINAL EXAM WILL COUNT 25 %

Grading scale: Plus and minus grades are given sparingly. The highest A is given an A+ and the lowest A an A-, with a similar distribution for B’s, C’s, and D’s. The scales are: 90-100 gets you an A, 80-89 a B, 65-79 a C, and 55-64 a D. Grades below 55 result in an F.

FINAL EXAM: Thursday, 6/24/2021: 8:30-11:00 online

Grading/Scheduling Changing Options Related to COVID-19: If the delivery mode has a negative impact on your academic performance in this course, the university has provided tools to potentially reduce the impact:

   Enhanced S/U Grading Option: Enhanced Satisfactory/ Unsatisfactory Grading Option
   Late Drop: Enhanced Late Drop Option

   Be aware that if you use the enhanced S/U grading option, you will need to complete the course and receive at least a C- to pass the course.

   In some cases, another option may be to request an incomplete in the course. Before using any of these tools, please discuss the options with me and with your academic advisor.

Auditing the Course: To audit the course, you must have the approval of your advisor and the Mathematics Department. In order to receive an AU,
you must attend the majority of the sessions, and you must hand in all of
the homework and take all of the tests. See:

https://policies.ncsu.edu/regulation/reg-02-20-04 for more information con-
cerning course audits.

Incomplete Grades: Incomplete grades will be handled on an individual
basis. Note, however, that if an extended deadline is not authorized by an
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 attempted courses on transcripts. The burden
of fulfilling an incomplete grade is the responsibility of the student. The
university policy on incomplete grades is located at:

https://policies.ncsu.edu/regulation/reg-02-50-03/.

Attendance Policy/Late Assignments/Make-up Work: You are expected
to attend all classes on time. Late assignments and make-up work will only
be allowed for excused absences. You should contact me by email before any
anticipated excused absence. If you have an unanticipated excused absence
(for example, a medical emergency), you should contact me within one week
of returning to class.

For complete attendance and excused absence policies, please see:
https://policies.ncsu.edu/regulation/reg-02-20-03-attendance-regulations/.

COVID-19 Related Absences: If you need to miss class because you have
been advised that you may have been exposed to COVID-19 or you have
a personal or family situation related to COVID-19 that prevents you from
attending our sessions, please contact me. Together we will develop a plan to
help you keep up with your coursework during any such absences. COVID-19-
related absences will be considered excused. You do not need any additional
documentation. (But, again, please make sure you contact me.)

Academic Integrity/Honesty: Students are required to comply with the
university policy on academic integrity/honesty found in the Code of Student
Conduct:

It is my understanding and expectation that your signature on any test or assignment means that you have adhered to the Pack Pledge:
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).

Digital Course Components: In this course we will use Zoom and Moodle. Please see the relevant technology requirements. If you need access to additional technological support, please contact the Libraries Technology Lending Service (Technology Lending).

Students may be required to disclose personally identifiable information to other students in the course, via electronic tools like email or web-postings, where relevant to the course. Examples include online discussions of class topics and posting of student coursework. All students are expected to respect the privacy of each other by not sharing or using such information outside the course.

Throughout the semester you will need to upload homework and tests in Moodle as pdfs. So make sure you have an app that will allow you to scan your work if you are not able to directly save your work as a pdf.

Zoom: Our lectures will be conducted synchronously via Zoom. I'll send out a Zoom invitation to your NC State email address right before class and you’ll be able to click on the link in that email.

I will be recording our Zoom sessions and will be posting links to the recordings on our Moodle page for your use. These recordings are for use in our current class (and possibly for use in future educational activities). By your continued participation in this recorded course, you are providing your permission to be recorded for use in our class and for use in future educational activities.

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.

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

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 Resource Office at Holmes Hall, Suite 304, 2751 Cates Avenue, Campus Box 7509, 919-515-7653. For more information on NC States policy on working with students with disabilities, please see the Academic Accommodations for Students with Disabilities Regulation (REG02.20.01).

Non-Discrimination Policy: NC State prohibits discrimination, harassment, and retaliation based on a persons age (40 years or older), color, disability, genetic information, gender identity, national origin, race, religion, sex (including pregnancy), sexual orientation or veteran status. If you feel that you have been the subject of prohibited discrimination, harassment, or retaliation, you should contact the Office for Institutional Equity and Diversity (OIED) at 919-513-0574.

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://oied.ncsu.edu/divweb.

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)
  Health Center (Health Services — Student)

NC State CARES Team: As members of the NC State Wolfpack community, we each share a personal responsibility to express concern for one
another and to ensure that our campus 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 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).

Additional COVID-19 Information: Due to the Coronavirus pandemic, public health measures have been implemented across campus. Students should stay current with these practices and expectations through the Protect the Pack website (https://www.ncsu.edu/coronavirus/).

We are most concerned about your health and the health of the students, faculty, and staff across campus. If you test positive for COVID-19, or are told by a healthcare provider that you are presumed positive for the virus, please follow 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.

Community Standards related to COVID-19: We are all responsible for protecting ourselves and our community. Please see the Community Standards 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 and Rules).

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:


Code of Student Conduct https://policies.ncsu.edu/policy/pol-11-35-01/
Important Resources for Students

NC State Keep Learning, tips for students taking courses remotely: https://dasa.ncsu.edu/academics/keep-learning/

Introduction to Zoom for Students: https://youtu.be/5LbPzzPbYEw

Learning with Moodle, a students guide to using Moodle: https://moodle-projects.wolfware.ncsu.edu/course/view.php?id=226

Protect the Pack FAQs: https://www.ncsu.edu/coronavirus/frequently-asked-questions/

NC State Protect the Pack Resources for Students: https://www.ncsu.edu/coronavirus/reactivating-campus/resources-for-students/