# **Syllabus**

**Graduate Instructor:** TBD

**Instructor of Record:** Dr. Bevin Maultsby

**Videos:** Dr. Carl Meyer

**Primary Contact:** Please contact TBD for any questions related to the course material at

TBD @ncsu.edu. If you have an administrative question, please contact

Dr. Maultsby at bmaults@ncsu.edu, 919-515-1876 (no voicemail)

**Moodle Page:** https://moodle-courses1819.wolfware.ncsu.edu/course/view.php?id=4752

**Lectures:** Lectures will be posted on the Moodle course site. While all lecture

videos are available on Mediasite, they should be viewed according to the weekly schedule posted on the Moodle page. Questions will only be answered about videos currently posted on the course Moodle page (typ-

ically ranging up to three weeks ahead of "present time").

Office Hours: Please see the separate document on office hours to set up and use Black-

board Collaborate. Regular online office hours will be

• Mondays, 3:45-4:45pm (on Blackboard Collaborate)

• By appointment.

**Dr. Maultsby's Office:** SAS Hall 3230

**Prerequisites:** MA 405, or by consent of the instructor.

**Course overview:** Vector spaces, linear transformations and matrices, orthogonality, orthog-

onal transformations with emphasis on rotations and reflections, matrix norms, projectors, least squares, generalized inverses, definite matrices,

singular values.

**Textbook:** Matrix Analysis and Applied Linear Algebra by Carl Meyer (ISBN: 978-0-

898714-54-8).

**Optional References:** – Matrix Analysis & Topics In Matrix Analysis by R. Horn and C. Johnson

-Theory of Matrices by P. Lancaster

**Grades:** 

This course consists of weekly Moodle quizzes, two midterms and a cumulative final. Grades will be based on

- Quizzes = 10%
- Midterm 1 = 25%
- Midterm 2 = 25%
- Cumulative Final Exam = 40%

You have two attempts on each Moodle quiz; Moodle will automatically select the higher of the two scores. After each attempt you can see the score you received on each question but not individual markings for each part of each question. There is no time limit, and each quiz is open notes/book. Quizzes are designed to be fast and simple concept checks which are largely graded automatically by Moodle–they will rarely ask for proofs or theory. Do not assume the quizzes are the level of the tests.

Your grades will be posted on Moodle. The final grade will be assigned using the plus/minus grading system according to the following chart:

| A+: 98-100 | A: 93–97.99 | A-: 90-92.99 |
|------------|-------------|--------------|
| B+: 88-100 | B: 83-87.99 | B-: 80-82.99 |
| C+: 78–100 | C:73-77.99  | C-: 70-72.99 |
| D+: 68-100 | D: 63-67.99 | D-: 60-62.99 |
|            | F: 0-59.99  |              |

**Tests:** 

Students who live within a 50-mile radius of NC State will take the examinations on campus through DELTA Testing Services. Students who live farther than 50 miles from NC State may take the examinations with an approved proctor.

Please visit https://online-distance.ncsu.edu/current\_students/testing-services/ for more information.

Test #1 must be taken at one of the campus testing facilities or under the supervision of your proctor on Monday, March 5th, or Tuesday, March 6th, as a 75-minute timed test.

Test #2 must be taken at one of the campus testing facilities or under the supervision of your proctor on Thursday, April 11th, or Friday, April 12th, as a 75-minute timed test.

Final Exam:

The Final Exam must be taken at one of the campus testing facilities or under the supervision of your proctor on Thursday, May 2nd, or Friday, May 3rd, as a 180-minute timed exam.

### **Academic Integrity**

Students are required to comply with the university policy on academic integrity found in the Code of Student Conduct found at http://policies.ncsu.edu/policy/pol-11-35-01.

**Utilization of the Honor Pledge:** All examinations must be completed independent of assistance from other people. 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.

#### Statement for students with 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 States policy on working with students with disabilities, please see the Academic Accommodations for Students with Disabilities Regulation (REG02.20.01) (https://policies.ncsu.edu/regulation/reg-02-20-01/).

## **Electronic Course Components**

Please be advised that Collaborate office hours may be recorded for current and potential future educational purposes. By your continued participation in this recorded course, you are providing your permission to be recorded.

Instructor is not responsible for ensuring privacy or accessibility of electronic materials that are not required components of the course (e.g., links to supplemental information that is not part of the required reading list).

Required statement: "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."

#### For Your Reference

Students are responsible for reviewing the NC State University Policies, Regulations, and Rules which pertains to their course rights and responsibilities:

• Academic Accommodations for Students with Disabilities

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

• Equal Opportunity and Non-Discrimination Policy Statement

https://policies.ncsu.edu/policy/pol-04-25-05

with additional references at

https://oied.ncsu.edu/equity/policies/

• Code of Student Conduct

https://policies.ncsu.edu/policy/pol-11-35-01

• Grades and Grade Point Average

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

• Credit-Only Courses

https://policies.ncsu.edu/regulation/reg-02-20-15

• Audits

https://policies.ncsu.edu/regulation/reg-02-20-04