

# MAT 213.06 – Fall 2025 – Syllabus

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## Elementary Statistics

### Instructor

Dr. Morgan Wood

mwood@ncwu.edu

### Instructor's Office Hours (Tentative)

Braswell, Room 176

#### *For Course Material:*

Mondays 1:00 PM – 2:00 PM

Wednesdays 9:00 AM – 10:00 AM

#### *For Grading Concerns: (schedule in advance)*

I always have Wednesdays from 11:30am-12:30pm set aside for this purpose. We can meet in person or over zoom. Email me to reserve this time.

### Resources

For many of you, this course will be your first introduction to statistics. This material tends to build on itself. Because of this, it is imperative not to fall behind. I suggest taking advantage of all available resources; some of which are listed below.

- My Office Hours
- Study Groups (Form your own)
- Textbook
- Textbook Website  
<https://www.openintro.org/book/os/>

### Course Overview

Topics will include descriptive statistical techniques including sampling techniques, collection of data, frequency distributions, graphing of data and analysis of data (measures of central tendency, location and spread); introduction to relationships between quantitative variables (correlation and least squares regression); probability rules with known probability distributions such as binomial and normal distributions; introduction to statistical inference (confidence intervals, hypothesis testing and making predictions).

### Class Location & Time

MWF 8:00 AM – 9:00 AM

Pearsall Classroom Building, Room 276

### Required Text

OpenIntro Statistics, 4th Edition by Diez, Barr, and Rundel.

Available freely through: <https://www.openintro.org/book/os/>.

### Learning Objectives

- Summarize data using appropriate statistics, graphs, & tables
- Understand basic probability rules and apply them
- Understand what a sampling distribution is and implications of the Central Limit Theorem (CLT)
- Make mathematically sound inferences about population characteristics using samples
- Students will gain competence in mathematical problem-solving, analytical reasoning and the theory and application of scientific methods.

## Grading

Assignment	Percentage
Homework	50%
Midterm	20%
Final Exam	25%
Lecture Project	5%

A	93 or above	C+	77 to 79.99
A-	90 to 92.99	C	73 to 76.99
B+	87 to 89.99	C-	70 to 72.99
B	83 to 86.99	D+	67 to 69.99
B-	80 to 82.99	D	60 to 66.99
		F	Below 60

## Tentative Exam Schedule

Exam	Date	Subjects
Midterm I	October 13 <sup>th</sup>	Chapters 1, 2, 3, & 4
Final Exam	According to Final Exam Schedule	Cumulative: Chapters 1 - 7

## Material that will be Covered

Chapter	Subject
Chapter 1	Introduction to Data
Chapter 2	Summarizing Data
Chapter 3	Probability
Chapter 4	Distributions of Random Variables
Chapter 5	Foundations for Inference
Chapter 6	Inference for Categorical Data
Chapter 7	Inference for Numerical Data
Chapter 8 (time permitting)	Introduction to Linear Regression

## Class Schedule

A tentative up-to-date schedule for lecture topics, exams, homeworks, and more is posted on our course page. I will communicate any changes with you as soon as possible. Please be aware that the goal is to lecture at least at the pace outlined in this original schedule below. Extra time will be filled with relevant topics or review lectures.

### *Tentative Original Course Schedule*

Week	Topic Covered
1. Aug 20 – Aug 26	Introduction to Statistics & Observational Studies (1.2 & 1.3)
2. Aug 27 – Sept 3	Experiments & Ch. 1 Lab Session (1.4) Numerical Data (2.1)
3. Sept 4 – Sept 10	Numerical & Categorical Data (2.1 & 2.2) Introduction to Probability (3.1)
4. Sept 11 – Sept 17	Probability (3.1, 3.2, & 3.3)
5. Sept 18 – Sept 24	Random Variables (3.4 & 3.5)
6. Sept 25 – Oct 1	Common Distributions (4.2.1, 4.3.1, 4.1)
7. Oct 2 – Oct 12	Common Distributions (4.1) Review Day
8. Oct 13 – Oct 19	Midterm for Chapters 1 – 4 Point Estimates and the Sampling Distribution (7.1, 5.1)
9. Oct 20 – Oct 26	Point Estimates and the Sampling Distribution Lab Session (7.1, 5.1) Hypothesis Testing (7.1, 5.1)
10. Oct 27 – Nov 2	Hypothesis Testing (7.1, 5.1) Confidence Intervals (7.1, 5.1)
11. Nov 3 – Nov 9	Confidence Intervals (7.1, 5.1) Review Day
12. Nov 10 – Nov 16	Difference of Means or Proportions (6.2, 7.2, 7.3)
13. Nov 17 & Nov 18	Review Day
14. Final Exam	Final Exam covering Chapters 1 – 7

## **Homework Policy**

Homework will be assigned once we begin a new topic (approximately 3 assignments every two weeks). It will be due approximately one week after completing the topic. The schedule of these can be found on our course page and on myOpenMath. If you are not able to complete the homework on time, you are able to request an extension. An extension will be granted for up to 3 days (72 hours). Any work completed during this extended period will earn 50% of the original credit. The only exception to this penalty is for excused absences on the due date. I will extend the homework assignment for as many days that are excused. To ask any private questions about homework grading, feel free to schedule some time with me during my “Administrative” Office Hour.

I will drop your lowest graded homework assignment.

This course will be using myOpenMath for homework. You will need to log onto <https://www.myopenmath.com> and enter the class key to be added to my class. If you need assistance with your first login, let me know. This needs to be done by August 31<sup>st</sup> at the latest as your first homework assignment is due on September 1<sup>st</sup>.

**Course ID for myOpenMath: 283867**

**Enrollment ID: NCWUMATH231**

## **Exam Policy**

The tentative dates of all exams (midterm and final) are posted above. Make-up midterm exams will only be allowed with a documented (and approved) medical or emergency absence. I must be made aware of this approval before the solutions of the exam are released which can be as early as 8 hours after the exam is scheduled. If your absence does not satisfy these two things, I will allow you to replace the missing exam with your final exam grade. Similarly, for those who are not satisfied with their midterm grade (for whatever reason), I will allow your midterm grade to be replaced by your final grade if this change improves your grade.

The university may have a special policy for missing Final Exams. I'll update this section of the syllabus when I learn more.

I will allow a (front and back) cheat sheet on all exams. These must be handwritten, but can be of any size... If you decide to bring a poster board, please find a seat on the edge of the classroom.

## **Lecture Project**

More information on this project will be released later in the semester. The completion of this project will entail recording a short lecture on a relevant topic from the course and also a review of another student's lecture.

## **Email Communication**

Outside of face-to-face communication, we will be primarily communicating through email. As such, there are expectations for both you and me. All emails should be sent through your NCWU email account; this is to ensure that we can both guarantee that we are who we say we are. You will never get an email from me from any other email than: [mwood@ncwu.edu](mailto:mwood@ncwu.edu). As emails will often contain time-sensitive matters (announcements from me and

questions from you), we should both strive to check and respond to all emails within 24 hours during the weekdays.

### **AI Use**

As it has now become part of many of our lives, I expect the use of AI in this class by many students, which is perfectly fine. However, note that you are responsible for understanding all the material we cover in class as well as any material you turn in (homework, report, etc). I reserve the right to give a zero for any assignment where the student cannot tell me what they did and why. AI – as well as laptops, cellphones, etc – is forbidden to be used during exams.

### **Mental Health**

I am a huge supporter of mental health awareness and would like to be available to you if you need me. I was Mental Health First Aid (MHFA) certified which covers helping you through an immediate mental health crisis (suicidal idealizations, hallucinations, delusions, etc). However, please be aware that I am a mandated reporter. If I believe that someone is considering killing themselves, a crime has been committed (including sexual assault and harassment), or a crime will likely be committed, I must report this to the university. The university has assured me that the goal will be to resolve the issue and remedy any lasting effects. If possible and if you wish, issues are attempted to be handled in-house by the university rather than using the Rocky Mount Police Department. If you would like to talk to a confidential source, I am happy to help you get in contact with one.

### **The Office of Counseling & Accessibility Services**

North Carolina Wesleyan University seeks to fully comply with the Americans with Disabilities Act (ADA). The purpose of Accessibility services is to provide equal access opportunities, including the establishment and coordination of academic accommodations, auxiliary aids, and programs to qualified students in accordance with Section 504 of the Rehabilitation Act of 1973 and Americans with Disabilities Act of 1990. The office of Counseling and Accessibility Services exercises a reasonable good faith effort to coordinate accommodations to enable students with disabilities to maximize their educational potential.

For complete information on support available for students with disabilities at NC Wesleyan University, please email [accessibility@ncwu.edu](mailto:accessibility@ncwu.edu) for more information.

### **Inclement Weather**

In the event of a weather or other emergency, information about the status of classes at NCWU will be posted on the NCWU home page ([www.ncwu.edu](http://www.ncwu.edu)) and distributed to major TV and radio stations in the area.

### **Statement on Academic Honesty**

The professor and students share responsibility for the integrity of the academic process. The definition of cheating is “giving or receiving of information illicitly with intent to deceive the instructor in his or her effort to grade fairly any academic work,” and the definition of plagiarism is “to take and use as one’s own the thoughts,

writings, or inventions of another” (Oxford English Dictionary). It is plagiarism when one uses direct quotations without proper credit and appropriate quotation marks, and when one uses the ideas of another without proper credit. The penalty for academic dishonesty is severe. (Refer to the university catalog)

### **Classroom Behavior**

It is important that we have a classroom atmosphere that optimizes teaching and learning, and we all share the responsibility for creating a civil and non-disruptive forum. Students are expected to always conduct themselves in a manner that is respectful of differing viewpoints and does not disrupt teaching or learning. Behavior which disrupts the learning process may lead to disciplinary action and/or removal from class as specified in university policies.

### **Attendance**

I encourage all students to attend class whenever possible as class discussions and explanations are a vital part of understanding the material. While attendance is not a graded part of this course, please be aware that attendance will still be taken and reported for each class meeting. Be careful not to miss too many classes if your financial aid, scholarship, sports team, or similar requires certain attendance rates in classes.

If you miss the first 15% of class meetings (first 3 classes for T/TH courses, first 5 classes for M/W/F courses) or if you miss more than 25% of the total class meetings (5 classes for T/TH courses, 8 classes for M/W/F courses), I reserve the right to withdraw you from the course.

### **Syllabus Changes**

The professor reserves the right to make changes to the syllabus including project due dates and test dates. These changes will be announced as early as possible.