![North Central State College logo]

North Central State College

MASTER SYLLABUS	2025-2026

A. Academic Division: Liberal Arts

B. Discipline: Statistics

C. Course Number and Title: STAT1010 Probability and Statistics

D. Assistant Dean: Laura Irmer

E. Credit Hours: 3

F. Prerequisites: MATH0084 (Minimum grade of C- required) or qualifying placement test score
OR
Co-requisites: STAT 0086

G. Last Course/Curriculum Revision Date: Fall 2023   Origin date: 06/08/2011

H. Textbook(s) Title:

OpenStax Free Textbook (available for download or view)
Introductory Statistics
- Authors: OpenStax College
- Copyright Year: 2018
- Edition: N/A
- Link: https://openstax.org/details/books/introductory-statistics

Online/Hybrid Courses:
Online Access Code thru Web Assign (E-book included)
- Author: OpenStax
- ISBN 9781337777186

I. Workbook(s) and/or Lab Manual: Access to Microsoft Excel; TI-83 or TI-84 calculator required

J. Course Description: This course provides the student with an overview of probability and statistics. Probability terminology, concepts and rules are emphasized in solving probability problems. Descriptive statistics, including measures of central tendency and dispersion, charts, tables and diagrams are used to summarize data. The student is introduced to the binomial, Poisson, hyper-geometric, normal and t-distributions. Confidence intervals, hypothesis testing, correlation, and linear regression are used to make conclusions concerning population parameters from sample data. This course meets the requirements for Transfer 36 Introductory Statistics TMM010.

K.   College-Wide Learning Outcomes:

College-Wide Learning Outcome	Assessments - - How it is met & When it is met
Communication – Written	
Communication – Speech	
Intercultural Knowledge and Competence	
Critical Thinking	
Information Literacy	
Quantitative Literacy	Quantitative Literacy VALUE Rubric, middle of term.

L.   Course Outcomes and Assessment Methods:

Upon successful completion of this course, the student shall:

Outcomes	Assessments – How it is met & When it is met
1. Define foundational terms used in statistics and identify characteristics of a well-designed statistical study.	HW, Project, Tests, final exam, early in the term.
2. Collect, organize, and summarize data in tables, charts, and with statistics/parameters.	HW, Project, Tests, final exam Early in the term.
3. Describe the relationship between two variables both visually and numerically.	HW, Project, Tests, final exam Early in the term.
4. Apply the rules and concepts of probability to solve a variety of problems.	HW, Tests, final exam Middle of the term.
5. Apply the binomial, poison, and hyper-geometric discrete probability distributions to solve appropriate statistical problems.	HW, Tests, final exam Middle of the term.
6. Apply the normal distribution to solve appropriate statistical problems.	HW, Tests, final exam Late in the term.
7. Define sampling distributions and generate said distributions to observe the Central Limit Theorem.	HW, Project, Tests, final exam Late in the term.
8. Calculate confidence intervals for means and proportions using the z and t distributions.	HW, Project, Tests, final exam Late in the term.
9. Compute one population tests for means and proportions using the z and t distributions.	HW, Project, Tests, final exam Late in the term.

M.   Recommended Grading Scale:

NUMERIC	GRADE	POINTS	DEFINITION
93–100	A	4.00	Superior
90–92	A-	3.67	Superior
87–89	B+	3.33	Above Average
83–86	B	3.00	Above Average
80–82	B-	2.67	Above Average
77–79	C+	2.33	Average
73–76	C	2.00	Average
70-72	C-	1.67	Below Average
67–69	D+	1.33	Below Average
63-66	D	1.00	Below Average
60-62	D-	0.67	Poor
00-59	F	0.00	Failure

N.   College Procedures/Policies:

North Central State College believes that every student is a valued and equal member of the community.* Every student brings different experiences to the College, and all are important in enriching academic life and developing greater understanding and appreciation of one another. Therefore, NC State College creates an inclusive culture in which students feel comfortable sharing their experiences. Discrimination and prejudice have no place on the campus, and the College takes any complaint in this regard seriously. Students encountering aspects of the instruction that result in barriers to their sense of being included and respected should contact the instructor, assistant dean, or dean without fear of reprisal.

*   *Inclusive of race, color, religion, gender, gender identity or expression, national origin (ancestry), military status (past, present or future), disability, age (40 years or older), status as a parent during pregnancy and immediately after the birth of a child, status as a parent of a young child, status as a foster parent, genetic information, or sexual orientation*

Important information regarding College Procedures and Policies can be found on the syllabus supplement located at:
https://ncstatecollege.edu/documents/President/PoliciesProcedures/PolicyManual/Final%20PDF/14-081b.pdf

North Central State College
SYLLABUS ADDENDUM

Academic Division:	Liberal Arts	**Discipline:**	Mathematics
Course Coordinator:	Sara K. Rollo		
Course Number:	STAT 1010-922	**Course Title:**	Probability and Statistics
Semester / Session:	Spring 2026/Session A	**Start / End Date:**	01/12/2026 – 03/06/2026

Instructor Information

Name:	Christine Shearer	**Credentials:**	M.S. Mathematics/B.S. Mathematics
Phone Number:	419-755-4755	**E-Mail Address:**	cshearer@ncstatecollege.edu
Office Location:		**Office Hours:**	Mondays 11am-12pm, Wednesdays 10am-12pm, Fridays 10am-12pm

I. Topical Timeline (Subject to Change):

Weeks	Topics	Assignment	Due Date
1	Learn an overview of statistics, sampling methods, and types of data	Chapter 1 Homework	1/17
	Collect, organize, and summarize data in tables, charts, and with statistics/parameters. Determine measures of central tendency and measures of dispersion	Chapter 2 Homework	1/17
2	Topics from Chapters 1 and 2	Chapter 1 and 2 Test Benchmark 1	1/20 1/20
	Describe the relationship between two variables both visually and numerically	Chapter 12 Homework	1/24
3	Apply the rules and concepts of probability to solve a variety of problems	Chapter 3 Homework	1/27
	Topics from Chapters 12 and 3	Chapter 12 and 3 Test	1/31
	Topics from Chapter 2	Benchmark 2	1/31
4	Apply the binomial, Poisson, geometric, hypergeometric and discrete probability distributions to solve appropriate statistical problems	Chapter 4 Homework Chapter 4 Quiz	2/3 2/7
	Topics from Chapter 3	Benchmark 3	2/7
5	Apply the uniform and exponential probability distributions to solve appropriate statistical problems	Chapter 5 Homework	2/10
	Apply the normal distribution to solve appropriate statistical problems	Chapter 6 Homework	2/14
6	Define sampling distributions and use the Central Limit Theorem	Chapter 7 Homework	2/17
	Topics from Chapters 6 and 7	Chapter 6 and 7 Test	2/21
7	Calculate confidence intervals for means and proportions using the z and t distributions	Chapter 8 Homework	2/24
8	Topics from Chapter 8	Chapter 8 Quiz	2/24
	Compute one population tests for means and proportions using the z and t distributions	Chapter 9 Homework	2/28
	Topics from Chapters 8 and 9	Benchmark 4	2/28
9	Topics from Chapters 1, 2, 3, 8 and 9	Project	3/3
	Topics from the course	Final Exam	3/7

II. Grading and Testing Guidelines:

Final Grade Calculation

Activity	Qty	Points	Percentage
Homework	10	100	10%
Project	1	100	10%
Quizzes	2	200	10%
Tests	3	300	50%
Final Exam	1	100	20%
Total			100%

IV.   Examination Policy:

There will be two quizzes (after Chapter 4 and after Chapter 8). They are timed and you will have two attempts per question on the quiz. You will have 3 hours (180 minutes) to complete each quiz. The quizzes must be completed in a single setting (i.e. the timer cannot be paused).

There will be three tests (Chapters 1 and 2, Chapters 12 and 3, Chapters 6 and 7). There will also be a comprehensive final exam at the end of the semester. They are timed and you will have two attempts per question. You will have 4 hours (240 minutes) for each of the three tests. You will have 6 hours (360 minutes) for the final exam. The tests and final exam must be completed in a single setting (i.e. the timer cannot be paused).

Students will not be allowed to begin a quiz or test and then request an extension. Do not click on the quiz or test link until you are fully prepared to take the exam.

The homework, quizzes, tests and final exam will be completed on WebAssign. There is a project due at the end of the course that will not be completed on WebAssign. I have benchmark assignments due throughout the semester to help keep you on track with the project. The project and the benchmark assignments will be submitted through Canvas.

V.   Class Attendance and Homework Make-Up Policy:

This is an online hybrid course which means that we will meet as a class virtually through Zoom on Mondays and Wednesdays from 6:00PM – 7:15PM. The rest will be done by watching videos provided by me and reading the textbook. I will also be holding office hours through Zoom on Mondays from 11:00AM – 12:00PM, Wednesdays from 10:00AM – 12:00PM and Fridays from 10:00AM – 12:00PM on Zoom and you can also contact me to schedule another time to meet virtually.

Your assignments will be due twice per week on Tuesdays and Saturdays by 11:59pm. Unlike the quizzes and tests, you will have 100 attempts per question on the homework. This means that you can work towards 100% on every homework assignment if you keep working on them!

VI.   Classroom Expectations:

I expect you to attend class on Zoom on Mondays and Wednesdays. Attendance will enhance your understanding of the material and therefore increase your chance of success in the course. In preparation for each week's meeting, I would like you to read the chapter, watch the lecture video(s) that I post on Canvas and look at the homework so that you know where you might be struggling. We will then work through examples to help you complete the homework and quizzes. When a test is due, we can use the class time for review.

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Week 1	Jan 11	Jan 12	Jan 13	Jan 14	Jan 15	Jan 16	Jan 17 Chapter 1 Homework Due Chapter 2 Homework Due
Week 2	Jan 18	Jan 19	Jan 20 Chapter 1 and 2 Test Due Benchmark 1 Due	Jan 21	Jan 22	Jan 23	Jan 24 Chapter 12 Homework Due
Week 3	Jan 25	Jan 26	Jan 27 Chapter 3 Homework Due	Jan 28	Jan 29	Jan 30	Jan 31 Chapter 12 and 3 Test Due Benchmark 2 Due
Week 4	Feb 1	Feb 2	Feb 3 Chapter 4 Homework Due	Feb 4	Feb 5	Feb 6	Feb 7 Chapter 4 Quiz Due Benchmark 3 Due
Week 5	Feb 8	Feb 9	Feb 10 Chapter 5 Homework Due	Feb 11	Feb 12	Feb 13	Feb 14 Chapter 6 Homework Due
Week 6	Feb 15	Feb 16	Feb 17 Chapter 7 Homework Due	Feb 18	Feb 19	Feb 20	Feb 21 Chapter 6 and 7 Test Due
Week 7	Feb 22	Feb 23	Feb 24 Chapter 8 Homework Due Chapter 8 Quiz Due	Feb 25	Feb 26	Feb 27	Feb 28 Chapter 9 Homework Due Benchmark 4 Due
Week 8	Mar 1	Mar 2	Mar 3 Project Due	Mar 4	Mar 5	Mar 6	Mar 7 Final Exam Due