North Central State College

MASTER SYLLABUS	2026-2027

A. Academic Division: Liberal Arts

B. Discipline: Statistics

C. Course Number and Title: STAT1010 Probability and Statistics

D. Assistant Dean: Laura Irmer, MFA, MA

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-84 Calculator recommended ISBN #8780000100116 *Check with instructor on calculator options

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 – 923 B	**Course Title:**	Probability and Statistics
Semester / Session:	Fall 2026	**Start / End Date:**	October 19 – December 11

Instructor Information

Name:	Sara K. Rollo	**Phone Number:**	419.755.4833 (work)
Credentials:	MS Applied Mathematics	**E-Mail Address:**	srollo@ncstatecollege.edu
Office Location:	Zoom	**Office Hours:**	By appointment

I. Topical Timeline (Subject to Change):

STAT 1010	Wednesday	Saturday
Chapter Homework, Quiz and Test Note – completed via Web Assign	**Project Part(s) Assignment Note – submitted via Canvas**	
1: October 19 – October 25	**Complete Assignment:** Ch 1 HW, Initial Assignment, Chapter 1 Notes Due **Outcomes/objectives:** Learn an overview of statistics, sampling methods, and types of data	**Complete Assignments:** Ch 2 HW, Chapter 2 Notes Due **Outcomes/objectives:** Collect, organize, and summarize data in tables, charts, and with statistics/parameters. Determine measures of central tendency and measures of dispersion
2: October 26 – November 1	**Complete Assignment:** Ch 1 and 2 Test, Reflection #1, and Part 1 of Project Due	**Complete Assignments:** Ch 12 HW, Chapter 12 Notes, and Part 2 of Project Due **Outcomes/objectives:** Describe the relationship between two variables both visually and numerically
3: November 2 – November 8	**Complete Assignment:** Ch 3 HW, Chapter 3 Notes Due **Outcomes/objectives:** Apply the rules and concepts of probability to solve a variety of problems	**Complete Assignment:** Ch 12 and 3 Test, Reflection #2 Due
4: November 9 – November 15	**Complete Assignments:** Ch 4 HW, Chapter 4 Notes, and Part 5 of Project Due **Outcomes/objectives:** Apply the binomial, Poisson, geometric, hypergeometric and discrete probability distributions to solve appropriate statistical problems	**Complete Assignment:** Ch 4 Quiz, Reflection #3 Due
5: November 16 – November 22	**Complete Assignment:** Ch 5 HW, Chapter 5 Notes Due **Outcomes/objectives:** Apply the uniform and exponential probability distributions to solve appropriate statistical problems	**Complete Assignment:** Ch 6 HW, Chapter 6 Notes Due **Outcomes/objectives:** Apply the normal distribution to solve appropriate statistical problems
6: November 23 – November 29	**Complete Assignment:** Ch 7 HW, Chapter 7 Notes Due **Outcomes/objectives:** Define sampling distributions and use the Central Limit Theorem	**Complete Assignment:** Ch 6 and 7 Test, Reflection #4 Due

7: November 30 – December 6	**Complete Assignment:** Ch 8 HW, Chapter 8 Notes Due **Outcomes/objectives:** Calculate confidence intervals for means and proportions using the z and t distributions	**Complete Assignments:** Ch 8 Quiz, Reflection #5 and Part 3 of Project Due
8: December 7 – December 11 **NOTE*** Last day of the term is a Friday, so the final exam is on a Friday, rather than Saturday ******	**Complete Assignments:** Ch 9 HW, Chapter 9 Notes Due **Outcomes/objectives:** Compute one population tests for means and proportions using the z and t distributions	**Complete Assignments:** Final Exam and Parts 4 and 6 of Project Due

II. Course Assignments:

1. Quizzes – Chapters 4 and 8
2. Tests – Chapters 1 and 2, Chapters 12 and 3, Chapter 6 and 7
3. Homework – Chapters 1 – 12, skip Chapter 10 and 11
4. Final Project
5. Final Exam – Comprehensive

III. Grading and Testing Guidelines:

Activity	Qty	Points	Percentage
Homework (25 points each)	10	250	10%
Project	1	104	15%
Tests (100 points each)	3	300	45%
Quizzes (50 points each)	2	100	10%
Final Exam	1	200	20%
Total		954	100%

IV. Examination Policy:

- Exams/Quizzes must be completed by the indicated due date.
- Due dates are on both Canvas and on Web Assign.
- Exams/Quizzes are to be completed using the online component of the course, Web Assign.
- Check Canvas for the up to date grade on the test/quiz and in the class.
- All tests/quizzes are open starting the first day of the semester and will close on the due date. You can take the test/quiz any day leading up to the due date.
- There is a time limit for the test/quiz so be diligent while taking the test/quiz and be prepared prior to the start of it!!
- You will have two attempts per question for each quiz and test
- **Please note that I can see if you have viewed the answer key on Web Assign. I will not grant extensions if you have viewed the answer key**
- **Once you open the quiz or test, you must complete the assignment in that one sitting. If you open and close the assignment, I cannot grant extensions. Please wait until you are ready before you begin the quiz or the test**

V. Class Attendance and Homework Make-Up Policy:

- Homework is to be completed using the online component of the course, Web Assign.
- Homework must be completed by the indicated due date.
- Due dates are on both Canvas and on Web Assign.
- Check Canvas for the up to date grade on the homework and in the class.
- There is no time limit for the homework.
- You have multiple attempts to get the homework correct.
- All homework is open starting the first day of the semester and will close on the due date. You can complete the homework any day leading up to the due date.

- You must complete the Reflection assignments - these are found on Canvas (not on Web Assign)
- Be sure to utilize the resources available to you – The lecture videos that I created and also the resources available through Web Assign
- I can tell if you are using AI for assignments, if I notice that you are using AI, then it results in an automatic zero for the assignment.

VI. Classroom Expectations:

- If you post a message/discussion/comment, then please be respectful to your classmates and to me.
- You are expected to complete the assignments by the indicated due dates.
- You can expect a turn- around time for both grades (for assignments completed on time) and communication to be within 24 hours
- The assignments move quickly. Be sure to write due dates and to stay organized.
- Ask Questions Often!
- Zoom room: https://ncsc.zoom.us/j/95189210747 Passcode: 693271
- Any student who requires reasonable accommodations related to a disability should inform the course instructor and the Coordinator of Specialized Services (Room 138 in Kee Hall; phone 419-755-4727)
- Students who encounter difficulty in any of their courses are encouraged to visit the Tutoring Resource Center (Room 119 in Fallerius Technical Education Center) for tutoring assistance, and the Student Success Center (Room 136 in Kee Hall) for academic assistance, advising services, referrals for personal counseling and Learning Disability (LD) Testing.