



North Central State College

MASTER SYLLABUS

2025-2026

- A. Academic Division: Liberal Arts
- B. Discipline: Statistics
- C. Course Number and Title: STAT 0086 Algebra for Probability and Statistics
- D. Assistant Dean: Laura Irmer
- E. Credit Hours: 2
- F. Prerequisites: MATH 0072 or MATH 0073 with a minimum of C- grade
-OR-
COMPASS Algebra score of 1-30
-OR-
ACT Math score of 19 or higher
-OR- ACCUPLACER Elementary Algebra score of 45 or higher
- Co-requisite: STAT 1010
- G. Syllabus Effective Date: Fall 2023
- H. Textbook(s) Title: No Textbook Required; Instructor handouts will be provided.
- I. Workbook(s) and/or Lab Manual: TI-83 or TI-84 required.
- J. Course Description: This course is designed to teach students the algebraic methods and procedures that will be needed in a probability and statistics course. The topics will include demonstrations in using the calculator, scientific notation, order of operations, converting decimals to percents, inequalities, and exponents, radicals, solving equations, graphing lines using slope and y-intercept, solving equations using the quadratic formula, sequences and variation.
- 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	

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. Convert decimal numbers to scientific notation and vice versa.	In-class assignments and/or homework throughout the semester.
2. Apply the knowledge of order of operations when simplifying algebraic expressions and solving equations.	In-class assignments and/or homework throughout the semester.
3. Change algebraic expressions using properties of exponents.	In-class assignments and/or homework throughout the semester.
4. Demonstrate the knowledge of inequality symbols while solving inequalities.	In-class assignments and/or homework throughout the semester.
5. Convert decimal numbers to a percent and vice versa.	In-class assignments and/or homework mid to end of the semester.
6. Label the slope and y-intercept on a graph and draw the line.	In-class assignments and/or homework mid to end of the semester.
7. Compute the solutions of a quadratic equation using both the quadratic formula and factoring.	In-class assignments and/or homework end of the semester.
8. Determine the general term of both arithmetic and geometric sequences.	In-class assignments and/or homework end of the semester.
9. Generate an equation or formula using both direct and inverse variation when given specific pieces of data.	In-class assignments and/or homework end of the semester.

M. Recommended Grading Scale:

Course will be evaluated as Pass/Fail based on attendance and participation. Participation includes, but is not limited to, completing in-class work and outside homework assignments.

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%20PDFs/14-081b.pdf>



North Central State College
SYLLABUS ADDENDUM

Academic Division:	<u>Liberal Arts</u>	Discipline:	<u>Mathematics</u>
Course Coordinator:	<u>Sara K. Rollo</u>		
Course Number:	<u>STAT 0086</u>	Course Title:	<u>Algebra for Probability and Statistics</u>
Semester / Session:	<u>Fall 2025 Session B</u>	Start / End Date:	<u>10/13/25 – 12/12/25</u>

Instructor Information

Name:	<u>Michael Enders</u>	Email:	<u>menders@ncstatecollege.edu</u>
Credentials:	<u>MA Teaching and Learning</u>		
Office Location:	<u>None</u>	Office Hours:	<u>Immediately after class</u>

I. Topical Timeline (Subject to Change): STAT0086

Week # and Dates		Day 1 – Tuesday	Day 2 - Thursday
1	10/14 & 10/16	Outcomes/objectives: Lesson 1 Learn how to use the graphing calculator No homework as we will do all of lesson 1 together in class.	Outcomes/objectives: Lesson 2 Convert decimal numbers to scientific notation and vice versa and perform unit conversion Homework Lesson 2 due next class
2	10/21 & 10/23	Lesson 2 continued No homework.	Outcomes/objectives: Lesson 3 Apply the knowledge of order of operations when simplifying algebraic expressions Homework: Lesson 3 due next class
3	10/28 & 10/30	Outcomes/objectives: Lesson 4 Demonstrate the knowledge of inequality symbols Homework 4 due next class	Outcomes/objectives: Lesson 5 Solve equations, inequalities, and rational expressions Homework 5: #1-13 due next class
4	11/04 & 11/06	Lesson 5 continued No homework as we will finish lesson 5 in class.	No In-Person Class Homework: Read lesson 6
5	11/11 & 11/13	College Closed – Veteran's Day	Outcomes/objectives: Lesson 6 Label the slope and y-intercept on a graph and draw the line. Determine the slope given two points and from application Homework: Lesson 6
6	11/18 & 11/20	Outcomes/objectives: Lesson 7 Convert decimal numbers to a percent and vice versa Homework: Lesson 7	Outcomes/objectives: Lesson 8 Change algebraic expressions using properties of exponents Homework: Lesson 8
7	11/25 & 11/27	Outcomes/objectives: Lesson 9 part 1 Compute the solutions of a quadratic equation using both the quadratic formula and factoring Homework: Begin lesson 9	No Class – Thanksgiving Day
8	12/02 & 12/04	Outcomes/objectives: Lesson 9 part 2 Homework: none as we will finish lesson 9 homework in class	Outcomes/objectives: Lesson 10 Determine the general term of both arithmetic and geometric sequences Homework: Lesson 10
9	12/09 & 12/12	Outcomes/objectives: Lesson 11 Generate an equation or formula using both direct and inverse variation when given specific pieces of data Homework: none	No Class

Course Number: STAT0086
Semester / Session: Fall 2025 Session B

Course Title: Algebra for Prob and Stats
Start / End Date: 10/13/25 – 12/12/25

II. Course Assignments:

1. Attending class
2. Lesson Homework

III. Grading and Testing Guidelines:

Homework: 50%
Attendance: 50%

IV. Examination Policy:

There are no examinations for STAT00886. (There are exams in STAT1010.)

V. Class Attendance and Homework Make-Up Policy:

Students will be allowed to turn in one homework assignment one class past due without penalty. Attendance will be taken each class and accounts for 50% of the overall grade.

VI. Classroom Expectations:

Attend class every scheduled session ready to actively participate respectfully.