North Central State College

MASTER SYLLABUS	2026-2027

A. Academic Division: Liberal Arts

B. Discipline: Mathematics

C. Course Number and Title: MATH1110 College Algebra

D. Assistant Dean: Laura Irmer, MFA, MA

E. Credit Hours: 4

F. Prerequisites: MATH0084 (Minimum grade of C- required) or qualifying placement test score

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

H. Textbook(s) Title:

College Algebra with Co-Requisite Support - Access Code
Author: Lumen Learning
Publisher: Lumen, Inc
ISBN 978-1-64087-291-2
Copyright: 2023

I. Workbook(s) and/or Lab Manual:
TI-84 Calculator recommended ISBN #8780000100116 *Check with instructor on calculator options

J. Course Description:

A study of:

1. Polynomial operations, rational expressions, exponents, radicals;
2. Linear and quadratic equations, inequalities, absolute value applications and their graphs;
3. Graphs of elementary functions and non-functions including inverse functions, combining functions, and translating and transforming functions;
4. Study of polynomial functions, including the Fundamental Theorem of Algebra, zeroes of polynomials, rational functions, partial fractions;
5. Exponential and logarithmic functions including graphs and applications;
6. Gauss-Jordan elimination and Cramer's Rule.

This course meets the requirements for OTM College Algebra TMM001

K. College Wide Learning Outcomes:

College-Wide Learning Outcomes	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, midterm exam

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. Determine whether an algebraic relation or graph represents a function and perform transformation of those functions.	Homework and tests regularly throughout the term and Final Exam.
2. Add, subtract, multiply, divide and compose a variety of functions.	Homework and tests regularly throughout the term and Final Exam.
3. Analyze the graph of a variety of functions and their inverses.	Homework and tests regularly throughout the term and Final Exam.
4. Use the Remainder and Factor Theorems for polynomial functions.	Homework and tests regularly throughout the term and Final Exam.
5. Solve application problems including creating mathematics which model a wide range of phenomena.	Homework and tests regularly throughout the term and Final Exam.
6. Solve equations and systems of equations with a variety of methods (including technology) and determine symmetry using their graphs.	Homework and tests regularly throughout the term and Final Exam.
7. Solve inequalities graphically, algebraically, and with using technology and solve systems of inequalities.	Homework and tests regularly throughout the term and Final Exam.
8. Identify and express conics in standard rectangular form and graph.	Homework and tests regularly throughout the term and Final Exam.
9. Solve polynomials over the complex numbers system.	Homework and tests regularly throughout the term and Final Exam.
10. Write series in summation notation and find the sum of arithmetic and geometric series.	Homework and tests regularly throughout the term and Final Exam.

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

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:	Liberal Arts	**Discipline:**	Mathematics
Course Coordinator:	Sara K. Rollo		
Course Number:	MATH 1110-Section 920	**Course Title:**	College Algebra
Semester / Session:	Summer 2026	**Start / End Date:**	May 26th – July 16th

Instructor Information

Name:	Pam Robison	**Credential:**	BA Mathematics / MS Applied Mathematics
Phone Number	419-755-4525	**E-Mail Address:**	probison@ncstatecollege.edu
Office Location:	Online at https://ncsc.zoom.us/j/856970747?pwd=UE1JNC9WNjhPM3dkRCs3bjE0SGx3Zz09	**Office Hours:**	Mondays 10:00am – 12:00pm noon Thursdays 4:00 – 6:00pm

I. Topical Timeline (Subject to Change):

MATH 1110 --- **NOTE** --- Review(s) for success are included with the "HW" when each topic assignment is mentioned as due	Day 1 put day of the week	Day 2
Week 1 Wednesday, May 27th Saturday, May 30th	**Complete Assignments**: Syllabus Quiz (Canvas) Introductions! (Canvas) Topic 1 Review & HW Due (Lumen) **Outcomes/objectives:** Review equations and inequalities and cover rectangular coordinates, graphing utilities and introduce graphing equations	**Complete Assignment**: Response to Introductions (Canvas) Topic 2 HW Due (Lumen) **Outcomes/objectives:** Utilize the distance and midpoint formulas and graph circles, lines and study variation
Week 2 Wednesday, June 3rd Saturday, June 6th	**Complete Assignment:** Topic 2 Test Due (Lumen) Reflection #1 Due (Canvas)	**Complete Assignment:** Topic 3 Review & HW Due (Lumen) Study Strategies 1 (Canvas) **Outcomes/objectives:** Graph functions and learn of their properties, study and practice transformations, and build functions using mathematical models
Week 3 Wednesday, June 10th Saturday, June 13th	**Complete Assignment:** Topic 3 Test Due (Lumen)	**Complete Assignment:** Topic 4 Review & HW Due (Lumen) **Outcomes/Objectives:** Build linear and quadratic functions from data and build quadratic models from verbal descriptions and from data
Week 4 Wednesday, June 17th Saturday, June 20th	**Complete Assignment:** Topic 5 Review & HW Due (Lumen) **Outcomes/Objectives**: Graph polynomial functions and find real and complex zeros of a polynomial function. Study the properties of and graph rational functions and inequalities	**Complete Assignment:** Midterm (Topics 1 – 5) Due (Lumen) Reflection #2 Due (Canvas)

Week 5 Wednesday, June 24th Saturday. June 27th	**Complete Assignment:** Topic 6 Review & HW Due (Lumen) **Outcomes/objectives:** Review composite functions, one-to-one functions and inverse functions. Learn the properties of and graph exponential functions and logarithmic functions. Build financial, exponential, logarithmic and logistic models from data	**Complete Assignment:** Topic 6 Test Due (Lumen) Growth Mindset Discussion (Canvas)
Week 6 Wednesday, July 1st Friday, July 3rd	**Complete Assignment:** Topic 11 Review & HW Due (Lumen) **Outcomes/objectives:** Identify and express conics in standard rectangular form and graph	**Complete Assignment:** Topic 11 Test Due (Lumen) Reflection #3 (Canvas)
Week 7 Wednesday, July 8th Saturday, July 11th	**Complete Assignment:** Topic 12 Review & HW Due (Lumen) **Outcomes/objectives:** Solve systems of equations using substitution, elimination, matrices, and determinants. Practice partial fraction decomposition	**Complete Assignment:** Topic 12 Test Due (Lumen)
Week 8 Wednesday, July 15th **Thursday, July 16th**	**Complete Assignment:** Topic 13 Review & HW Due (Lumen) Study Strategies 2 (Canvas) **Outcomes/objectives:** Write series in summation notation and find the sum of arithmetic and geometric series. Practice mathematical induction and use the binomial theorem	**Complete Assignment:** Final Exam Due (Lumen) Reflection #4 (Canvas)

II. Course Assignments:

1. Topic 1 Homework and Review for Success
2. Topic 2 Homework
3. **Topic 2 Test**
4. Topic 3 homework and Reviews for Success 1 and 2
5. **Topic 3 Test**
6. Topic 4 Homework and Review for Success
7. Topic 5 Homework and Reviews for Success
8. **Midterm Exam: Topics 1 - 5**
9. Topic 6 Homework and Reviews for Success 1 and 2
10. **Topic 6 Test**
11. Topic 11 Homework and Review for Success
12. **Topic 11 Test**
13. Topic 12 Homework and Reviews for Success 1 and 2
14. **Topic 12 Test**
15. Topic 13 Homework and Review for Success
16. **Comprehensive departmental final exam**

III. Grading and Testing Guidelines:

Activity	Found on	Number of Items	Points per Item	Total Points	Percentage
Syllabus Quiz	Canvas	1	12	12	1.2%
Review	Lumen	12	4	48	4.8%
Homework	Lumen	9	10	90	9.0%
Discussions	Canvas	4	varies	30	3.0%
Reflections	Canvas	4	5	20	2.0%
Tests	Lumen	5	80	400	40.0%
Midterm Exam	Lumen	1	200	200	20.0%
Final Exam	Lumen	1	200	200	20.0%
Total				1000 points	100.0%

- Homework 20%
- Test/Quizzes 60% (Midterm will count as two tests)
- Final 20%

IV. Examination Policy:

You have just ONE attempt at each test, and final exam. All work on exams and tests is to be independent, involving no other people, no other websites or software or AI but you, Lumen, and your graphing calculator.

Because I normally grade the work for partial credit, you are to turn in your scratch work onto Canvas (not Lumen) under the test or exam that it falls under. You can simply take a picture of your work and upload it to Canvas. Please organize it so that I can follow it easily. Turning in your scratch work will give you chances for partial credit and will aide me in giving better feedback. Also, there are some problems that ask you to work it using a specific method.

Please submit your scratch work to Canvas (not Lumen) as soon as you can after taking the test. I expect it within 24 hours of taking the test.

IF YOU DO NOT TURN IN YOUR SCRATCH WORK, YOU WILL RECEIVE A ZERO FOR THE ASSIGNMENT UNTIL I GET YOUR SCRATCHWORK. IF YOU LOSE YOUR SCRATCHWORK, THEN YOU WILL GET AN OPTION TO RETAKE THE TEST, BUT LOSE 20 POINTS OFF YOUR SCORE FOR THE EXTRA WORK AND TIME WASTED.

If for some reason you don't think you can get the test done before the deadline, please do not start it. Ask for an extension. I can give extensions as long as you have not opened the test already. Once you open the test, I cannot give extensions. That is in part because it is difficult in the system to extend tests, but also to prevent cheating.

V. Class Attendance and Homework Make-Up Policy:

All assignments are open and available on the first day of class but are to be completed by their due data. Due dates are listed both on Canvas and on Lumen. Canvas will be where you check your grade, not on Lumen.

The following information is needed for registering onto LUMEN:
Course ID: 99011
Enrollment Key: Algebra 3572

Class attendance is not part of your grade. It is however something we keep track of for various college purposes, so a lack of activity online for a week or more will constitute an absence, and I will try to contact you.

Homework sections are worth 10 points per section. They will be graded by the percentage that is correct. I calculate these by taking the percentage, dividing it by 100, then multiplying that by 10. I will round that answer to the nearest point.

Review sections are worth 4 points per section. They will be graded by the percentage that is correct. I calculate these by taking the percentage, dividing it by 100, then multiplying that by 4. I will round that answer to the nearest point.

The deadlines for homework and review will be found on Canvas as well as Lumen. Assignments are open from the first day of class, and there is no time limit per assignment, and you can have multiple attempts, but they must be completed by the due date.

Late Assignment Policy: We have only 8 weeks for this course, and it is a lot to cover. That is why I have due dates set up, so that everyone can keep on task and not get behind. It helps you because if you keep up, you won't have extra work at the end of the semester. It helps me so that I can better keep track of grades, and I also don't want a lot of extra work to grade at the end of the semester. I want everyone to do their very best, and I want everyone to have extra time if they need it, because I understand that you all have lives outside of school and sometimes life circumstances get in the way. Because of this, I don't take points off for being late. I don't encourage turning everything in late, but I want you to have extra time if you need it. Sometimes that is all you need. Other times, you may need to drop the course because you don't have enough time in your life to devote to this class right now. I respect that you can make that choice for yourself. If you miss a homework assignment, you must contact me to open it again, and I will open it again, usually pushing it to the next due date. This will be true until the end of the semester, when I have to turn grades in. There are natural consequences of getting behind: you will have more work to do in less time, and you may not do as well on tests because you haven't properly prepared for it. I don't feel the need to add to that punishment.

There are also reflection and discussion assignments and one syllabus quiz found on Canvas only. These must be completed.

Updated grades are found on Canvas, not on Lumen.

My personal goal is to grade assignments I have collected within one week and to reply to messages and emails within 48 hours.

VI. Classroom Expectations:

I have typed up notes and posted videos of lessons from each section that is to be covered in this course. The videos will follow a set of typed notes that can be found under Canvas. They will be located in each assignment or can be found under Files. I have placed the videos and the template for notes under the assignment they pertain to, found when you click on details for the assignment.

I have set up the course in Module format, one module per week. They contain links to your assignments, as well as videos in which I cover material.

Students that want to contact me directly for questions or assistance can email me at probison@ncstatecollege.edu or make an appointment with me on Zoom. The website for me specifically on Zoom is https://ncsc.zoom.us/j/856970747?pwd=UE1JNC9WNjhPM3dkRCs3bjE0SGx3Zz09 . You must contact me via email to set up an appointment with me on Zoom, one that we can both agree on. Zoom allows us to see each other and talk to each other rather than writing or texting. I can answer questions live and walk you through a problem or two if that is what you would like.