NCBM 0101 - Non-Course-Based Intermediate Algebra 401 Course Syllabus

Description

A study of relations and functions, inequalities, algebraic expressions and equations (absolute value, polynomial, radical, rational), with a special emphasis on linear and quadratic expressions and equations.
Prerequisites Appropriate scores on TSI Assessment in Mathematics
Corequisites MATH 1314 or MATH 1324

Semester Offered
Fall
Spring
& Summer
Credits 1
Lecture Hours 0
Lab Hours 1
Extended Hours 0
Contact Hours 16
State Approval Code 32.0104.54.19
Instructor Name Amy Harris
Semester/Year Fall 2025

Meeting Time and Location
Students are expected to spend at least 1 hour per week reading, reviewing, and participating in assigned activities for successful completion of this course.

Alternate Operations During Campus Closure

In the event of an emergency or announced campus closure due to a natural disaster or pandemic, it may be necessary for Panola College to move to altered operations. During this time, Panola College may opt to continue delivery of instruction through methods that include, but are not limited to: online learning management system (CANVAS), online conferencing, email messaging, and/or an alternate schedule. It is the responsibility of the student to monitor Panola College's website (www.panola.edu) for instructions about continuing courses remotely, CANVAS for each class for course-specific communication, and Panola College email for important general information.

Student Basic Needs

Unexpected circumstances may arise, but Panola College offers various resources to support students. If you need mental health services or are facing challenges with transportation, affording class materials and supplies, or accessing food regularly—issues that may impact your class performance—please visit panola.edu/resources.

Class Attendance

Regular and punctual attendance of classes and laboratories is required of all students. When a student has been ill or absent from class for approved extracurricular activities, he or she should be allowed, as far as possible, to make up for the missed work. If a student has not actively participated by the census date, they will be dropped by the instructor for non-attendance. This policy applies to courses that are in-person, online, hybrid, and hyflex.

Attendance in online courses is determined by submission of an assignment or participation in an activity. According to federal guidelines, simply logging into a distance learning course without participating in an academic assignment does not constitute attendance. Distance learning is defined as when a majority (more than 50%) of instruction occurs when the instructor and students are in separate physical locations. Students must engage in an academic activity prior to the course census date.

When an instructor feels that a student has been absent to such a degree as to invalidate the learning experience, the instructor may recommend to the Vice President of Instruction that the student be withdrawn from the course. Instructors may seek to withdraw students for non-attendance after they have accumulated the following number of absences:

Fall or spring semesters:

3 or more class meeting times per week - 5 absences

2 class meeting times per week - 3 absences

1 class meeting per week - 2 absences

The student is responsible for seeing that he or she has been officially withdrawn from a class. A student who stops attendance in a class without officially withdrawing from that class will be given a failing grade; consequently, the student must follow official withdrawal procedures in the Admissions/Records Office.

Please note: Health Science and Cosmetology courses may require more stringent attendance policies based on their accreditation agencies. Please see the addendum and/or program handbook for further information concerning attendance.

Pregnant/Parenting Policy

Panola College welcomes pregnant and parenting students as a part of the student body. This institution is committed to providing support and adaptations for a successful educational experience for pregnant and parenting students. Students experiencing a need for accommodations related to pregnancy or parenting will find a Pregnancy and Parenting Accommodations Request form in the Student Handbook or may request the form from the course instructor.

Artificial Intelligence (AI) Course Policy

Use of generated AI Permitted under some classroom circumstances with permission.

There are situations throughout the course where you may be asked to use artificial intelligence (AI) tools to explore how they can be used. Outside of those circumstances, you should not use AI tools to generate content that will end up in any student work (assignments, activities, discussion responses, etc.). In such cases for Option #2, no more than 25% of the student work should be generated by AI. Use of any AI-generated content in this course without the instructor's consent qualifies as academic dishonesty and violates Panola College's standards of academic integrity.

Instructional Goals and Purposes

The purpose of this Non-Course-Based Option (NCBO) lab course is to increase academic proficiency in expression of mathematical solutions, mathematical reasoning, and mathematical understanding. This lab is taken along with a credit-level mathematics course—MATH 1314-College Algebra. It is designed to support the development of math skills needed to complete the credit-level course successfully.

Learning Outcomes

After studying the material presented in course, the student will be able to:

1. Define, represent, and perform operations on real and complex numbers.
2. Recognize, understand, and analyze features of a function.
3. Recognize and use algebraic (field) properties, concepts, procedures (including factoring), and algorithms to combine, transform, and evaluate absolute value, polynomial, radical, and rational expressions.
4. Identify and solve absolute value, polynomial, radical, and rational equations.
5. Identify and solve absolute value and linear inequalities.
6. Model, interpret and justify mathematical ideas and concepts using multiple representations.

7. Connect and use multiple strands of mathematics in situations and problems, as well as in the study of other disciplines.

Course Content

Students in all sections of this course will be able to:

1. Numeric Reasoning
    a. Perform computations with real and complex numbers.
    b. Define and give examples of complex numbers.
2. Algebraic Reasoning
    a. Explain and differentiate between expressions and equations using words such as “solve”, “evaluate”, and “simplify”.
    b. Recognize and use algebraic field properties, concepts, procedures, and algorithms to combine, transform, and evaluate expressions (absolute value, polynomial, radical, and rational expressions).
    c. Explain the difference between the solution set of an equation, the solution set of a system of equations, and the solution set of an inequality.
    d. Recognize and use algebraic field properties, concepts, procedures, and algorithms to solve equations (including absolute value, polynomial, radical, and rational equations) and inequalities (including linear and absolute value).
    e. Interpret multiple representations of equations and relationships.
    f. Translate among multiple representations of equations and relationships.
3. Geometric Reasoning
    a. Apply properties of geometric figures to solve problems.
    b. Make connections between geometry and algebra.
4. Measurement Reasoning
    a. Find the perimeter and area of two-dimensional figures.
    b. Find volume of three-dimensional figures.
5. Functions
    a. Recognize whether a relation is a function.
    b. Recognize and distinguish between linear and quadratic functions.
    c. Understand and analyze features of a function.
    d. Algebraically construct and analyze linear and quadratic functions.
    e. Apply linear and quadratic function models to real-world situations.
    f. Develop a linear or quadratic function to model a situation.
6. Problem Solving
    a. Analyze given information, formulate a plan or strategy, determine a solution, justify the solution, and evaluate the problem-solving process.
    b. Formulate a solution to a real-world situation based on the solution to a mathematical problem.
    c. Use a function to model a real-world situation.
7. Communication and Representation
    a. Use mathematical symbols, terminology, and notation to represent given and unknown information in a problem.
    b. Use mathematical language to represent and communicate the mathematical concepts in a problem.
    c. Use mathematics as a language for reasoning, problem solving, making connections, and generalizing.
    d. Model and interpret mathematical ideas and concepts using multiple representations.
    e. Summarize and interpret mathematical information provided orally, visually, or in written form within the given context.
    f. Communicate mathematical ideas, reasoning, and their implications using symbols have diagrams, graphs, and words.
    g. Create and use representations to organize, record, and communicate mathematical ideas.
    h. Explain, display, or justify mathematical ideas and arguments using precise mathematical language in written or oral communications.
8. Connections
    a. Connect and use multiple strands of mathematics in situations and problems.

b. Connect mathematics to the study of other disciplines.

Methods of Instruction/Course Format/Delivery
This course may be offered in a computer lab in face-to-face or hybrid format or may be offered online. In the event of an emergency where face-to-face instruction cannot be provided, the course materials and activities may be moved to an online format for course completion.

Methods of instruction will include activities needed to support individual skill development. Online homework will be assigned in online lab software. The student is expected to work at least 16 hours per semester in the online lab software.

Major Assignments/Assessments
The following items are assigned and assessed during the semester and used to calculate the student's final grade.

Assignments

Assignments
The following items will be assigned and assessed during the semester and will be used to calculate the final grade for the course.

Assignments:

- Online assignments in lab software—individualized based on diagnostic testing
- Supplemental assignments to support achievement in co-requisite credit-level class as needed

Course Grade
For developmental courses like this lab, a grade of C (70%) or higher must be achieved for course credit. This course requires at least one hour of study time per week.

Assignment Weight:

- Completion of individual Study Plan – 100%

OR

- Grade of C or higher in co-requisite credit-level course – 100%

Grades for the course will be assigned as follows:

- 70-100% = Pass
- Below 70% = Fail

A grade of Pass for this lab course will be assigned if the student achieves a grade of C or higher in the co-requisite credit-level class.

TSI Completion Requirements for NCBM 0101
To achieve TSI Met status students must complete the Study Plan with a 70% mastery of objectives assigned in the Plan. Students who achieve a grade of C or higher in the co-requisite credit-level math course will automatically achieve TSI Met status.

Texts Materials, and Supplies

- Panola College EdReady (This is included with registration of the course.)
- Access to Canvas LMS (Provided by Panola College)
- Desmos Scientific Calculator (no purchase necessary)
- Other materials as assigned by the instructor

Addendum
Instructor Handout

Other

- Courses conducted via video conferencing may be recorded and shared for instructional purposes by the instructor.
- For current texts and materials, use the following link to access bookstore listings: https://www.panolacollegestore.com.
- For testing services, use the following link: https://www.panola.edu/student-services/studentsupport/academic-testing-center.
- The Accommodations & Disability Support (A&DS) Office at Panola College provides and facilitates support services and accommodations for students with disabilities. The A&DS office works under the federal guidelines included in Section 503 of the Rehabilitation Act of 1973 and the American with Disabilities Act. Please contact the Accommodations & Disability Support (A&DS) Office located in the Charles C. Matthews Student Center or go to https://www.panola.edu/disabilitysupport for more information.
- Withdrawing from a course is the student's responsibility. Students who do not attend class and who do not withdraw will receive the grade earned for the course.
- Student Handbook: https://www.panola.edu/ (located on at the bottom under student)