NCBM 0102 - Non-Course-Based Mathematics NCBM 0102.402 Course Syllabus

Description

The NCBO supports students in developing skills, strategies, and reasoning needed to succeed in mathematics, including communication and appropriate use of technology. Topics include the study of numeracy and the real number system; algebraic concepts, notation, and reasoning; quantitative relationships; mathematical models; and problem solving.
Prerequisites Appropriate scores on TSI Assessment in Mathematics
Corequisites MATH 1332 or MATH 1342

Semester Offered
Fall
Spring
& Summer
Credits 1
Lecture Hours 0
Lab Hours 1
Extended Hours 0
Contact Hours 16
State Approval Code 32.0104.53 19
Instructor Name Amy Harris
Semester/Year Fall 2024

Meeting Time and Location
Online—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 course is to increase academic proficiency in expression of mathematical solutions have mathematical reasoning, and mathematical understanding. This NCBM lab is taken along with a creditlevel mathematics course—MATH 1332-Quantitative Reasoning or MATH 1342-Elementary Statistical Methods. It is designed to support the development of math skills needed to successfully complete the credit-level course.

Learning Outcomes

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

1. Use appropriate symbolic notation and vocabulary to communicate, interpret, and explain mathematical concepts.
2. Define, represent, and perform operations on real numbers, applying numeric reasoning to investigate and describe quantitative relationships and solve real world problems in a variety of contexts.

3. Use algebraic reasoning to solve problems that require ratios, rates, percentages, and proportions in a variety of contexts using multiple representations.
4. Apply algebraic reasoning to manipulate expressions and equations to solve real world problems.
5. Use graphs, tables, and technology to analyze, interpret, and compare data sets.
6. Construct and use mathematical models in verbal, algebraic, graphical, and tabular form to solve problems from a variety of contexts and to make predictions and decisions.

Course Content

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

1. Identify variables in context.
2. Classify data as a type of number.
3. Evaluate exponents and square roots.
4. Translate between scientific notation and standard form and vice versa.
5. Round decimals.
6. Write fractions in lowest term and apply operations to fractions.
7. Apply operations to decimals.
8. Convert between decimals, fractions, and percentages.
9. Find the percentage of a number.
10. Solve consumer math problems involving percentages.
11. Use a Cartesian coordinate plane to plot ordered pairs as points.
12. Interpret basic statistical graphs.
13. Define and identify terms used with probability: event, outcome, empirical probability, theoretical probability, etc.
14. Calculate the probability of a simple event.
15. Use tree diagrams to calculate the probability of a multi-stage experiment.
16. Use the Fundamental Counting Principle to determine the number of outcomes in an experiment and to calculate the probability of an event.
17. Calculate mean, median, mode, mid-range, and range.
18. Apply the order of operations.
19. Evaluate expressions and formulas.
20. Find the area of a rectangle.
21. Interpret inequality notation.
22. Find and interpret slope.
23. Find and interpret the y-intercept of a line.
24. Find values from a linear equation or graph.
25. Graph a linear equation.
26. Find and interpret a linear model (y = mx + b).

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

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 which is individualized based on diagnostic testing • Supplemental assignments to support achievement in corequisite 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 corequisite 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 corequisite credit-level class.

TSI Completion Requirements for NCBM 0102

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 corequisite 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

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.
- If any student in this class has special classroom or testing needs because of a physical learning or emotional condition, please contact the ADA Student Coordinator in Support Services located in the Charles C. Matthews Student Center or go to https://www.panola.edu/studentservices/student-support/disability-support-services 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)