

NCBS 403B: BRIDGE TO COLLEGE LEVEL MATHEMATICS II

Foothill College Course Outline of Record

Heading	Value
Effective Term:	Winter 2022
Units:	0
Hours:	25 lecture per quarter (25 total per quarter)
Advisory:	Completion of NCBS 403A.
Degree & Credit Status:	Non-Degree-Applicable Non-Credit Course Basic Skills, 2 Levels Below Transfer
Foothill GE:	Non-GE
Transferable:	None
Grade Type:	Non-Credit Course (Receives no Grade)
Repeatability:	Unlimited Repeatability

Student Learning Outcomes

- "Students can identify one test-taking strategy to increase success on the placement exam.
- Students demonstrate mastery in an increased number of mathematical topics as described in the course objectives
- Students gain more math skills as described in the course objectives to increase score on placement exam.

Description

Part two of a bridge to college level mathematics program for students who seek to refresh mathematical reasoning, computational skills, and test-taking strategies. Topics include mathematical skills from beginning algebra and intermediate algebra.

Course Objectives

The student will be able to:

- Solve linear equations and inequalities and systems of linear equations
- Graph linear equations and find the equation of a line
- Simplify algebraic expressions using laws of exponents
- Factor polynomials
- Evaluate expressions involving square roots

Course Content

- Solve linear equations and inequalities and systems of linear equations.
 - Solve linear equations with rational coefficients.
 - Solve literal equations (formulas) for a specified variable.
 - Solve linear inequalities algebraically and graphically.
 - Solve system of linear equations algebraically and graphically.
 - Solve application problems involving linear equations and inequalities and systems of linear equations.
- Graph linear equations and find the equation of a line.
 - Identify slopes and y-intercepts from equations.
 - Write an equation of a line.

- Graph a linear equation.
 - Model and solve problems involving linear functions.
- Simplify algebraic expressions using laws of exponents.
 - Multiply and divide numbers with exponents.
 - Evaluate numbers with positive, negative and zero exponents.
 - Use properties of exponents to simplify algebraic expressions.
 - Factor polynomials.
 - Factor quadratics with lead coefficient of one.
 - Factor quadratics with a lead coefficient that is not one.
 - Evaluate expressions involving square roots.

Lab Content

Not applicable.

Special Facilities and/or Equipment

Access to computers with internet capabilities.

Method(s) of Evaluation

- Homework
- Quizzes
- Class participation

Method(s) of Instruction

After an initial assessment, students will work online in a self-paced environment using software such as ALEKS to improve their understanding in identified areas of need. The instructor will offer whole-class mini-lectures on test-taking skills and selected math topics. The instructor will provide one-on-one in-class targeted support for individual needs around test-taking and specific math topics.

Representative Text(s) and Other Materials

No text required.

Types and/or Examples of Required Reading, Writing, and Outside of Class Assignments

Not applicable.

Discipline(s)

Mathematics-Basic Skills: Noncredit