

---

**ASHEVILLE-BUNCOMBE TECHNICAL COMMUNITY COLLEGE**  
**MATHEMATICS DEPARTMENT**  
**COMMON SYLLABUS DIRECTORY**

---

**PREFIX:** MAT **NUMBER:** 161A **TITLE:** College Algebra Lab

**CONTACT HOURS:** 2 **CREDIT HOURS:** 1

**CCL DESCRIPTION:** This course is a laboratory for MAT 161 College Algebra. Emphasis is placed on experiences that enhance the materials presented in the lecture section. Upon completion, students should be able to solve problems, apply critical thinking, work in teams, and communicate effectively. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

**PREREQUISITE(S):** MAT 080 or MAT 090

**COREQUISITE(S):** MAT 161 College Algebra

**TEXTBOOK:** Blitzer, College Algebra, Prentice Hall, 5<sup>th</sup> Edition, ISBN 978-0-321-55983-8

**DELIVERY METHOD:** Both Traditional with Web Support and Online are available.

**GRADING POLICY: Traditional Delivery:** (Online) Quizzes (50%)  
Lab Assignments (50%)  
**Online Delivery:** Quizzes (50%) Lab Assignments (50%)

**CONTENT OUTLINE:**

- Lab 1: Graphs and Graphing Utilities, Linear and Rational Equations, Models and Applications
- Lab 2: Complex Numbers, Quadratic Equations
- Lab 3: Other Types of Equations
- Lab 4: Linear Inequalities and Absolute Value Inequalities, Basics of Functions and Their Graphs

- Lab 5: More on Functions and Their Graphs, Linear Functions and Slope,  
More on Slope
- Lab 6: Transformations of Functions, Combinations and Compositions of Functions,
- Lab 7: Inverse Functions, Distance and Midpoint Formulas; Circles
- Lab 8: Quadratic Functions, Polynomial Functions and Their Graphs
- Lab 9: Dividing Polynomials; Remainder and Factor Theorems,  
Zeros of Polynomial Functions
- Lab 10: Rational Functions and Their Graphs, Polynomial and Rational Inequalities
- Lab 11: Modeling Using Variation, Exponential Functions
- Lab 12: Logarithmic Functions, Properties of Logarithms
- Lab 13: Exponential and Logarithmic Equations, Modeling with Exponential and  
Logarithmic Functions

**COMMENTS:** Any policy concerning the possible acceptance of a late assignment or the possibility of a special arrangement that might be made with the student who missed a scheduled examination due to circumstances beyond his/her control is left to the discretion of the instructor.

---