

LEARNING OUTCOMES	LEARNING ACTIVITIES	EVALUATION METHODS
3. Graph linear functions and vertical lines.	Lectures Small Group Discussions and/or Projects The Use of TI 84 Graphics Calculator Homework Quizzes Projects	Exams Quizzes Homework Projects
4. Evaluate function notation.	Lectures Small Group Discussions and/or Projects The Use of TI 84 Graphics Calculator Homework Quizzes Projects	Exams Quizzes Homework Projects
5. Factor and apply this technique to simplifying expressions and solving equations.	Lectures Small Group Discussions and/or Projects The Use of TI 84 Graphics Calculator Homework Quizzes Projects	Exams Quizzes Homework Projects
6. Simplify rational expressions and solve rational equations.	Lectures Small Group Discussions and/or Projects The Use of TI 84 Graphics Calculator Homework Quizzes Projects	Exams Quizzes Homework Projects
7. Solve quadratic equations and graph quadratic functions.	Lectures Small Group Discussions and/or Projects The Use of TI 84 Graphics Calculator Homework Quizzes Projects	Exams Quizzes Homework Projects

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8. Simplify radicals and interpret i -notation.	Lectures Small Group Discussions and/or Projects The Use of TI 84 Graphics Calculator Homework Quizzes Projects	Exams Quizzes Homework Projects
9. Solve systems of linear equations.	Lectures Small Group Discussions and/or Projects The Use of TI 84 Graphics Calculator Homework Quizzes Projects	Exams Quizzes Homework Projects
10. Graph exponential and logarithmic functions.	Lectures Small Group Discussions and/or Projects The Use of TI 84 Graphics Calculator Homework Quizzes Projects	Exams Quizzes Homework Projects
11. Solve word problems involving distance, rate, time, variation, investment, Pythagorean's Theorem, and regression.	Lectures Small Group Discussions and/or Projects The Use of TI 84 Graphics Calculator Homework Quizzes Projects	Exams Quizzes Homework Projects

SEQUENCE OF TOPICS:

1. Algebra Review
2. Exponents and Scientific Notation
3. Graphs and the Graphing Calculator
4. Functions
5. Linear Equations, Formulas, Applications
6. Linear Functions, Graphs, Curve Fitting
7. Systems of Equations & Applications
8. Business and Economics Applications
9. Polynomials
10. Factoring
11. Expressions Containing Sums or Differences of Cubes
12. Applications of Polynomial Equations
13. Rational Expressions
14. Rational Expressions, Equations, Applications: *Motion Problems*
15. Formulas and Variation
16. Radicals, Fractional Exponents
17. Multiplication and Division of Radicals, Simplifying
18. Radical Equations
19. Applications: *Pythagorean Theorem only*
20. Complex Numbers: *Brief introduction to "i"*
21. Quadratic Equations: *Root extraction only*
22. Quadratic Formula & Applications
23. Graphing Quadratic Functions
24. Applications
25. Inverse Functions
26. Exponential Functions & Log Functions
27. Introduction to "e", Simple Exponential and Logarithmic Equations

LEARNING MATERIALS:

Kern, R. (2017). *Intermediate Algebra*. Hayden MCN

Calculator: TI-84+ graphing calculator. If a student has a TI-83+, they do not need to buy a TI-84+.

Other learning materials may be required and made available directly to the student and/or via the College's Libraries and/or course management system.

COURSE APPROVAL:

Prepared by:	Marty Johnson, Professor of Mathematics	Date:	4/1998
Revised by:	Fay Sewell, Professor of Mathematics	Date:	5/2000
Revised by:	Edwina Smith, Professor of Mathematics	Date:	11/2000
Revised by:	Edwina Smith, Professor of Mathematics	Date:	5/2001
Revised by:	Edwina Smith, Professor of Mathematics	Date:	5/2002
Revised by:	Fay Sewell, Professor of Mathematics	Date:	5/2003
Revised by:	Walter Hunter, Professor of Mathematics	Date:	10/2004
Revised by:	Walter Hunter, Professor of Mathematics	Date:	6/2005
Revised by:	Namrata Chauhan, Instructor of Mathematics	Date:	5/2007
Revised by:	Walter Hunter, Professor of Mathematics	Date:	2/2009
VPAA/Provost Compliance Verification:	Dr. John C. Flynn, Jr.	Date:	9/11/2009

