



Course Outline
MAT 0028C (2)
Developmental Mathematics II (2010 Rev.)

General Course Information

Common Course Number: MAT0028C (2)

Course Title: Developmental Mathematics II (2010 Rev.)

Prerequisite(s): Minimum grade of C in MAT 0018C or appropriate score on approved assessment.

Co-requisite(s): None

Contact Hour Breakdown: CR 3 CLASS 3 LAB 1

Discipline: Mathematics

Catalog Description: This college-preparatory course is designed to supplement the algebraic background of students prior to taking MAT 1033C Intermediate Algebra. Topics include sets, fundamental operations with polynomials, linear equations and inequalities with applications, factoring and its use in algebra, introduction to graphing of linear equations, introduction to radicals. There is no calculator permitted on the State Competency Test. A passing score on the State Competency Test is required for a minimum final course grade of C, which is required for successful completion of the course. This course does not apply toward mathematics requirements in general education or toward any associate degree.

Major Topics/ Concepts/ Skills/ Issues

- Language and operations on sets
- Operations on signed numbers
- Solving linear equations and inequalities in one variable
- Adding, subtracting and multiplying polynomials
- Factoring: greatest common factor, difference of squares, trinomials and by grouping
- Applications of factoring: solving equations and reducing algebraic fractions
- Integer exponents: definitions, properties and simplifying expressions with negative and zero exponents
- Simplifying, multiplying, adding and subtracting square roots of monomial expressions
- Graphing ordered pairs and lines; Determining intercepts of lines
- Applications of the above topics

Major Learning Outcomes with Evidence, Core Competencies and Indicators

Student will be able to analyze situations where mathematical reasoning is an appropriate tool.	
Corresponding Evidence of Learning	
<ul style="list-style-type: none"> • Student will be able to determine and apply appropriate properties of real numbers. • Student will be able to determine and apply appropriate properties of equations including the Zero Product Property. • Student will be able to differentiate plausible solutions to problems. • Student will be able to place real numbers in order. • Student will be able to apply appropriate formulas for problem solving. • Student will be able to show the solutions of a linear equations in graphical form. 	
Core Competency: Think	
Indicators	Assessments
<ul style="list-style-type: none"> • analyze data, ideas, patterns, principles, perspectives • employ the facts, formulas, procedures of the discipline 	<ul style="list-style-type: none"> • Locally developed exam/objective • Locally developed multiple choice exam • Portfolio • Problem-solving quiz
Student will be able to determine equivalent forms of expressions.	

Corresponding Evidence of Learning	
<ul style="list-style-type: none"> • Student will be able to apply appropriate skills to simplify expressions in real numbers • Student will be able to evaluate algebraic expressions for specific values of the variables. • Student will be able to simplify algebraic expressions. • Student will be able to express polynomials in factored form. 	
Core Competency: Think	
Indicators	Assessments
<ul style="list-style-type: none"> • employ the facts, formulas, procedures of the discipline 	<ul style="list-style-type: none"> • Locally developed exam/objective • Locally developed multiple choice exam • Portfolio
Student will be able to implement study skills.	
Corresponding Evidence of Learning	
<ul style="list-style-type: none"> • Student will be able to employ learning techniques suited to her/his learning style. • Student will be able to implement a time management scheme. • Student will be able to recognize the effects of stress and anxiety on test taking and use some methods of coping. • Student will be able to practice effective note taking. • Student will be able to employ effective techniques to prepare for and take exams. 	
Core Competency: Act	
Indicators	Assessments
<ul style="list-style-type: none"> • assess the effectiveness of personal behavior and choices 	<ul style="list-style-type: none"> • Portfolio
Student will be able to read in a mathematical context.	
Corresponding Evidence of Learning	
<ul style="list-style-type: none"> • Student will be able to extract critical mathematical information from a body of text. • Student will be able to translate English statements into mathematical statements. 	
Core Competency: Think	
Indicators	Assessments
<ul style="list-style-type: none"> • analyze data, ideas, patterns, principles, perspectives • draw well-supported conclusions 	<ul style="list-style-type: none"> • Locally developed exam/objective • Locally developed multiple choice exam • Portfolio

Shared Assessment(s) in this Course

- Final Exam

College Curriculum Committee Website

Office of the Vice President for Academic Affairs & Chief Learning Officer
Valencia College
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