



El Camino College
COURSE OUTLINE OF RECORD – Official

Subject:	MATH
Course Number:	502
Descriptive Title:	Math Essentials for STEM: Factoring
Division:	Mathematical Sciences
Department:	Mathematics
Course Disciplines:	Mathematics
Catalog Description:	This noncredit course introduces the basic techniques for factoring polynomials. Techniques for factoring polynomials include factoring a greatest common factor, factoring binomials, trinomials, special trinomials and factoring by grouping using the general factoring strategy.
Prerequisite:	
Co-requisite:	
Recommended Preparation:	
Enrollment Limitation:	
Hours Lecture (per week):	.22
Hours Laboratory (per week):	0
Outside Study Hours:	.44
Total Course Hours:	4
Course Units:	0
Grading Method:	Pass/No Pass/SP
Credit Status:	Noncredit
Transfer CSU:	No
Effective Date:	
Transfer UC:	No
Effective Date:	
General Education ECC:	
Term:	
Other:	
CSU GE:	
Term:	
Other:	
IGETC:	
Term:	
Other:	
Student Learning Outcomes:	Upon completion of the course, students will be able to:

	1. recognize when and how to use the factoring technique of factoring out the greatest common factor using the product of prime factors. 2. identify and to factor trinomials and special products. 3. factor polynomials completely using the appropriate techniques.
Course Objectives:	1. Develop and utilize a general factoring strategy on polynomials. 2. Factor polynomials completely.
Major Topics:	I. Greatest common factor II. Factor by grouping III. Factoring A. Binomials B. Trinomials
Total Lecture Hours:	4
Total Laboratory Hours:	0
Total Hours:	4
Primary Method of Evaluation:	2) Problem solving demonstrations (computational or non-computational)
Typical Assignment Using Primary Method of Evaluation:	Factor out the GCF: $35x^7y^5 - 49x^6y^6$
Critical Thinking Assignment 1:	Factor the following polynomial completely: $4x^3 - 12x^2 - 72x$
Critical Thinking Assignment 2:	Given the polynomial, state two equivalent expressions in factored form: $x^6 - 1$
Other Evaluation Methods:	Homework Problems, Objective Exam, Quizzes
If Other:	
Instructional Methods:	Demonstration, Discussion, Group Activities, Lecture, Multimedia presentations
If other:	
Work Outside of Class:	Answer questions, Problem solving activity, Skill practice, Study
If Other:	
Up-To-Date Representative Texts:	Teacher-generated materials
Alternative Texts:	
Required Supplementary Readings:	
Other Required Materials:	
Requisite	
Category	

Requisite course:	
Requisite and Matching skill(s): Bold the requisite skill. List the corresponding course objective under each skill(s).	
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Enrollment Limitations and Category:	
Enrollment Limitations Impact:	
Course Created by:	Matthew Kline
Date:	04/29/2024
Original Board Approval Date:	04/28/2025
Effective Term:	FA 2026