Subject:	MATH
Course Number:	504
Descriptive Title:	Math Essentials for STEM: Radical Expressions
Division:	Mathematical Sciences
Department:	Mathematics
Course Disciplines:	Mathematics
Catalog Description:	This noncredit course introduces fractional exponents and radical expressions. Students study the graphs of such expressions and solve equations involving such expressions.
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 this course, students will be able to:

	1. evaluate an expression having a rational exponent and/or radical. 2. simplify expressions involving rational exponents and radical expressions. 3. graph a radical function and its transformations. 4. solve equations having radical expressions.
Course Objectives:	1. Introduce rational exponents and the relationship to radicals. 2. Be able to evaluate expressions with rational exponents and radicals. 3. Introduce the graphs of radicals and determine the domain and range of such functions. 4. Introduce equations with radicals.
Major Topics:	I. Simplify II. Operations III. Radical exponents IV. Domain and graph
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:	Graph y=sqrt(2x-1) + 3. State the domain and range.
Critical Thinking Assignment 1:	The volume of a sphere of radius r is V = (4/3)*pi*r^3. What is the radius of a sphere having a volume of 100 cubic feet?
Critical Thinking Assignment 2:	Solve sqrt(2x-2) – sqrt(x-4) = 2
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).	
Requisite Skill:	
Requisite Skill and Matching skill(s): Bold the requisite skill(s). if applicable	
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Requisite Skill and Matching skill(s): Bold the requisite skill. List the corresponding course objective under each skill(s). if applicable	
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