

COVER SHEET FOR ALL CURRICULUM PROPOSALS

Check all		ALL Proposals	New Pr	rograms/Courses	
Ca	mpuses naking	PC Signature	CEO Signature	New Program	New Program
this			programs and any new courses that	Supplement B	("Cost Effectiveness and
рг	oposal.		have new facility/resource costs	("Budget" included	Resources" included for
	100			for each campus)	each campus)
	ACC				
	ССС				
	GWCC				
	HCC				
	MCC				
	MxCC				
x	NVCC				
	NWCC				
	NCC				
	QVCC				
	TRCC				
	ТхСС				

Type of Proposal.

	NEW Program (degree)		
	NEW Certificate		
	NEW Course		
	MODIFICATION of an Aligned Program (degree)		
	MODIFICATION of an Aligned Certificate		
Х	MODIFICATION of an Aligned Course		
	DISCONTINUATION of a Program (degree)		
	DISCONTINUATION of a Certificate		
	DISCONTINUATION of a Course		
	OTHER (please describe):		



This template should be used by the faculty discipline and program workgroups to modify an official record of a course for inclusion in the CT State Community College catalog. All original information as approved should be included, with revisions highlighted within the document and summarized in the "Summary of Changes." Please use the form below, or the original approved template with revisions highlights can be copied here, with a summary of changes and effective date included and all changes highlighted within the document.

Directions: *Please provide the date, name of originator, title, and campus below.*

Date: <u>2/2/24</u>

Name of Originator: Kevin Ramer

Title of Originator: Professor of Mathematics

Primary Campus of Originator: Naugatuck Valley Community College

COURSE INFORMATION (Aligned)

COURSE INFORMATION (Modified)

COURSE TITLE:		COURSE TITLE.	
COURSE IIILE.	Mathematics for Elementary Education: Algebra/Number Systems	COURSE ITTLE.	
COURSE CODE:		COURSE CODE:	
	MATH 1004		
(3-4-letter subject code and number)		(3-4-letter subject code and number)	
SUMMARY OF CHANGES:		SUMMARY OF CHANGES:	

EFFECT DATE OF CHANGES:	EFFECT DATE OF CHANGES:	
		ASAP

CREDIT HOURS:		CREDIT HOURS:	
	2		
	5		
CONTACT HOURS:		CONTACT HOURS:	
	Lecture: 3		
PREREQUISITES:		PREREQUISITES:	
	Placement using multiple measures or		Placement using multiple measures OR a grade
	MATH 0088/0080 (or higher) with a grade		of C- or higher in MATH 0988 or higher.
	WATH 0988/0989 (of higher) with a grade		Students must also be aligible for ENG 1010
	of C or higher, and eligible for ENG 101		Students must also be engible for ENO 1010.
Student must have earned an acceptable		Student must have earned an acceptable	
grade in all prerequisites before enrolling	r	grade in all prerequisites before enrolling	
		5 I I 5	
COREQUISITES:		COREQUISITES:	
	None		
Student must be enrolled in this course		Student must be enrolled in this course	
during the same term.		during the same term.	
COURSE DESCRIPTORS:		COURSE DESCRIPTORS.	
eouxse beserin rons.		COURSE DESCRIPTORS.	
	General Education – Math/Quantitative		
	Reasoning		
For example: General Education course		For example: General Education course	
Clinical Lab Studio Distance Learning		Clinical Lab Studio Distance Learning	
Chinical, Lao, Studio, Distance Learning,		Chinear, Lao, Studio, Distance Learning,	
Seminar, Practicum. Use designated		Seminar, Practicum. Use designated	
codes: (once developed)		codes: (once developed)	

CATALOG COURSE DESCRIPTION:	This is a mathematics course that prepares students to teach mathematical reasoning skills starting with the natural numbers and extending to the integers, rational numbers, and real numbers. Students will learn best practices in math education through the use of manipulatives, appropriate technologies, and analysis of other numeration systems.	CATALOG COURSE DESCRIPTION:	
	This course is recommended for students in Early Childhood, Elementary, and Middle School Education Programs.		
STUDENT LEARNING OUTCOMES:	 Upon successful completion of this course the student will: 1. Apply mathematical reasoning to solve routine and novel problems. 2. Identify the basic parts of a mathematical and axiomatic system. 3. Compare the strengths and weaknesses of historic number systems and different base systems for performing arithmetic operations. 4. Apply appropriate models for performing arithmetic operations on subsets of the real numbers. 5. Create lesson plans for teaching foundational mathematical skills which utilize manipulatives and other hands-on techniques when appropriate. 	STUDENT LEARNING OUTCOMES:	Upon success completion of this course the student will:

TOPICS OUTLINE:	List Instructional units:	TOPICS OUTLINE:	List Instructional units:
	List Instructional units:		
	 Thinking Critically 1.1 An Introduction to Problem Solving 1.2 Polya's Problem-Solving Principles and the Standards for Mathematical Practice of the Common Core State Standards for Mathematics 1.3 More Problem-Solving Strategies 1.4 Algebra as a Problem-Solving Strategy 1.5 Additional Problem-Solving Strategies 1.6 Reasoning Mathematically 		
	Sets and Whole Numbers 2.1 Sets and Operations on Sets 2.2 Sets, Counting, and the Whole Numbers 2.3 Addition and Subtraction of Whole Numbers 2.4 Multiplication and Division of Whole Numbers		
	Numeration and Computation 3.1 Numeration Systems Past and Present 3.2 Algorithms for Addition and Subtraction of Whole Numbers 3.3 Algorithms for Multiplication and Division of Whole Numbers 3.4 Mental Arithmetic and Estimation 3.5 Non-decimal Positional Systems		
	Number Theory 4.1 Divisibility of Natural Numbers 4.2 Tests for Divisibility 4.3 Greatest Common Divisors and Least Common Multiples		
	Integers 5.1 Representation of Integers 5.2 Models for Addition and Subtraction of Integers		

	 5.3 Models for Multiplication and Division of Integers Fractions and Rational Numbers 6.1 The Basic Concepts of Fractions and Rational Numbers 6.2 Models for Addition and Subtraction of Fractions 6.3 Models for Multiplication and Division of Fractions 6.4 The Rational Number System Decimals, Real Numbers, and Proportional Reasoning 7.1 Decimals and Real Numbers 7.2 Computations with Decimals 7.3 Proportional Reasoning 7.4 Percent 		
ADDITIONAL INFORMATION (OPTIONAL): Note any special instructions, recommended texts, or materials (e.g., open-source materials)	The use of mathematics-specific technology and manipulatives to support understanding of the concepts is required. Course should be taught by a person who has an academic background in K-12 mathematics education.	ADDITIONAL INFORMATION (OPTIONAL): Note any special instructions, recommended texts, or materials (e.g., open-source materials)	

CLASSROOM REQUIREMENTS	Lecture	CLASSROOM REQUIREMENTS *Note: If modified classroom requirements result in increased demand for Budget, Facilities, Equipment, and/or Personnel, the campus CEO must approve this proposal.	
(e.g., Computer lab, Kitchen, Science Lab, Studio, Lecture)		(e.g., Computer lab, Kitchen, Science Lab, Studio, Lecture)	

Resource needs have been discussed with Library Services and Information Technology Operations. (Complete if applicable.)

Name and Title	Signature of Originator	Date
Kevin Ramer		2/2/24

□ No Library Services needed.

□ No Technology Services needed.

GOVERNANCE BODY	SIGNATURES	DATE
Statewide Discipline Council		
School Area Curriculum Council		
Curriculum Congress		
School Area Academic Dean		
CT State Provost		
*Campus CEO (if applicable)		
*CT State President (if applicable)		