CSKL 372 Course Outline as of Spring 1991

CATALOG INFORMATION

Dept and Nbr: CSKL 372 Title: PRE-ALGEBRA
Full Title: Pre-Algebra
Last Reviewed: 1/25/2021

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	3.50	Lecture Scheduled	3.00	17.5	Lecture Scheduled	52.50
Minimum	3.50	Lab Scheduled	0	6	Lab Scheduled	0
		Contact DHR	2.00		Contact DHR	35.00
		Contact Total	5.00		Contact Total	87.50
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 105.00 Total Student Learning Hours: 192.50

Title 5 Category:	AA Degree Non-Applicable
Grading:	Grade or P/NP
Repeatability:	39 - Total 2 Times
Also Listed As:	
Formerly:	

Catalog Description:
Review and advanced skills development of number system combined with advanced operations of addition, subtraction, multiplication and division as applied to whole numbers, fractions and decimals. Fundamental ideas of algebra beginning with properties of real numbers, followed by basic operations of addition, subtraction, multiplication and division of real numbers. Introduction to powers and roots of real numbers. Scientific notation and prefixed notations conversion involving common English and metric system of linear, area and volumetric units. Arithmetic and algebraic methods of solving common figures involving perimeter, area and volume. Evaluations of algebraic expressions. Introduction to the solution of first degree linear equations. Regularly scheduled computer-assisted lab assignments to reinforce or supplement lecture topics.

Prerequisites/Corequisites:
Completion of CSKL 370 (formerly ACS 370, MATH 170) or CSKL 371 (formerly ACS 371) or CSKL 381 or CSKL 373A or DRD 382 (formerly LMATH 381) with a grade of "C" or better, or an APS Computational Math score of 23-35.

Recommended Preparation:

Limits on Enrollment:

Schedule of Classes Information:
Description: Pre-algebra topics include properties & operations of real numbers, powers & roots, basic algebraic expressions, geometric measurements, linear equations. (Grade or P/NP)
Prerequisites/Corequisites: Completion of CSKL 370 (formerly ACS 370, MATH 170) or CSKL 371 (formerly ACS 371) or CSKL 381 or CSKL 373A or DRD 382 (formerly LMATH 381) with a grade of "C" or better, or an APS Computational Math score of 23-35.
Recommended:
Limits on Enrollment:
Transfer Credit:
Repeatability: Total 2 Times

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree:	**Area**	Effective:	Inactive:
CSU GE:	**Transfer Area**	Effective:	Inactive:
IGETC:	**Transfer Area**	Effective:	Inactive:

CSU Transfer:	Effective:	Inactive:
UC Transfer:	Effective:	Inactive:

CID:

Certificate/Major Applicable:
Not Certificate/Major Applicable

COURSE CONTENT

Outcomes and Objectives:
The students will:
1. Develop advanced computational skills in addition, subtraction, multiplication & division of real numbers; calculate complex word problems involving multiple operations; solve pre-algebra problems including simple equations with common geometic shapes (perimeter, circumference, area and volume) and signed integers, fractions and decimals.
2. Operate a scientific calculator on multiple operations, square roots, and scientific and engineering notations.

Topics and Scope:

1. Review and advanced skills development of:
   A. Operations of addition, subtraction, multiplication and division of whole numbers, fractions and decimals;
   B. Order of operations (grouping symbols, exponents, multiplication and division, addition and subtraction).
   C. Conversions of fractions/decimals/percents.
2. Introduction to the real number line: integers, rational numbers

and absolute value.
3. Introduction to and advanced skills development of operations of real numbers (including simplifying expressions involving integers, fractions and deicmals).
4. Properties of real numbers: commutative, associative, distributive, and identity.
5. Terminology: variable, constant, term, expression, coefficient, mono/bi/tri/polynomials.
6. Evaluating and simplifying algebraic expressions.
7. Exponents: simplifying exponential expressions and scientific/ engineering notation and prefix notations.
8. Solving first degree linear equations: addition/subtraction and multiplication/division properties of equality; word problems.
9. Understanding the scientific calculator functions as applied to powers and roots of numbers and scientific/engineering notations.

Assignment:

1. Approximately 25-30 homework assignments.
2. 17 selective topic quizzes.
3. 6 unit tests.
4. Lab assignments.
5. Comprehensive final exam.

Methods of Evaluation/Basis of Grade:

Writing: Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

None	Writing 0 - 0%

Problem Solving: Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Homework problems	Problem solving 15 - 30%

Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

LAB ASSIGNMENTS	Skill Demonstrations 15 - 40%

Exams: All forms of formal testing, other than skill performance exams.

Multiple choice, LAB QUIZZES, UNIT TESTS, FINAL	Exams 20 - 60%

Other: Includes any assessment tools that do not logically fit into the above categories.

LECTURE AND LAB PARTICIPATION	Other Category 10 - 30%

Representative Textbooks and Materials:
PREALGEBRA, First Ed., Bach & Leitner, Houghton Mifflin, 1991