

**ADED 721 Course Outline as of Summer 2025****CATALOG INFORMATION**

Dept and Nbr: ADED 721 Title: WORKPLACE ARITH--PT 1

Full Title: Workplace Arithmetic--Part 1

Last Reviewed: 10/24/2022

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	0	Lecture Scheduled	0	9	Lecture Scheduled	0
Minimum	0	Lab Scheduled	2.00	3	Lab Scheduled	18.00
		Contact DHR	0		Contact DHR	0
		Contact Total	2.00		Contact Total	18.00
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 0.00

Total Student Learning Hours: 18.00

Title 5 Category: Non-Credit

Grading: Non-Credit Course

Repeatability: 27 - Exempt From Repeat Provisions

Also Listed As:

Formerly: ADLTED 721

**Catalog Description:**

Students will apply math concepts and problem-solving strategies to specific trades and industries. Skill areas to be covered include basic operations of whole numbers, fractions, and decimals.

**Prerequisites/Corequisites:****Recommended Preparation:****Limits on Enrollment:****Schedule of Classes Information:**

Description: Students will apply math concepts and problem-solving strategies to specific trades and industries. Skill areas to be covered include basic operations of whole numbers, fractions, and decimals. (Non-Credit Course)

Prerequisites/Corequisites:

Recommended:

Limits on Enrollment:

Transfer Credit:

Repeatability: Exempt From Repeat Provisions

## **ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:**

<b>AS Degree:</b>	<b>Area</b>	Effective:	Inactive:
<b>CSU GE:</b>	<b>Transfer Area</b>	Effective:	Inactive:

<b>IGETC:</b>	<b>Transfer Area</b>	Effective:	Inactive:
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<b>CSU Transfer:</b>	Effective:	Inactive:
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<b>UC Transfer:</b>	Effective:	Inactive:
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**CID:**

**Certificate/Major Applicable:**

Certificate Applicable Course

## **COURSE CONTENT**

### **Student Learning Outcomes:**

At the conclusion of this course, the student should be able to:

1. Apply understanding of whole numbers, decimals, fractions, mixed numbers, and conversions between fractions and decimals as they relate to problem-solving and calculations in the workplace.

### **Objectives:**

At the conclusion of this course, the student should be able to:

1. Perform arithmetic computations involving whole numbers, fractions, and decimals as they relate to the workplace.
2. Apply basic concepts of whole numbers, fractions, decimals, and measurement in both English (U.S.) and metric systems to solve word problems.
3. Interpret data from graphs, charts, and tables.
4. Use appropriate technology in the process of computation.

### **Topics and Scope:**

#### I. Whole Numbers and Operations

- A. Place value and word names
- B. Rounding and estimating
- C. Addition, subtraction, multiplication, division
- D. Order of operations

#### II. Fractions, as Appropriate to Specific Career or Technical Field

- A. Definitions, including
  1. numerator and denominator
  2. proper and improper fractions
  3. mixed numbers
- B. Fraction operations

#### III. Decimals

- A. Place value and word names of decimal fractions

- B. Rounding decimals
- C. Conversions between decimals and fractions
- D. Listing decimals in order of value
- E. Addition, subtraction, multiplication, division of decimals
- IV. Measurement with Emphasis on System Most Appropriate for Specific Workplace Field
  - A. English (U.S.) system
  - B. Metric system
- V. Problem-solving Strategies Appropriate to Field
- VI. Interpreting Basic Charts, Graphs, and Other Visual Information as Related to Specific Career Field
- VII. Using Technological Tools and Resources to Solve Typical Problems within the Field

**Assignment:**

1. Computational problems in arithmetic topics
2. Word problems using arithmetic topics
3. Application assignments and optional skill demonstrations that relate general arithmetic skills to the workplace
4. Quiz(zes) (1-3)
5. Final assessment (1)

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

Computational problems; word problems; application assignments	Problem solving 30 - 50%
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**Skill Demonstrations:** All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

Application assignments and optional skill demonstrations	Skill Demonstrations 30 - 50%
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**Exams:** All forms of formal testing, other than skill performance exams.

Quizzes; final assessment	Exams 10 - 30%
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**Other:** Includes any assessment tools that do not logically fit into the above categories.

Attendance and class participation	Other Category 10 - 20%
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**Representative Textbooks and Materials:**

Visual Literacy. Tables and Graphs. 2nd Ed. New Readers Press. 2014 (classic).

Mastering Workplace Skills: Math Fundamentals. Learning Express. 2015 (classic).

Breakthrough to Math. 2nd Ed. Grass Roots Press. 2014 (classic).

Instructor prepared materials