



Lakeshore Technical College

31442382 Welding Math 1

Course Outcome Summary

Course Information

Description	Welding Math 1 provides the learner with the necessary skills to solve problems involving whole numbers, fractions, and decimal numbers using pad and pencil and calculator. The course is designed for individualized student needs. This is credit one of the two math credits need for the Welding program.
Total Credits	1
Total Hours	36

Course Competencies

1. Solve problems using whole numbers

Linked Core Abilities

Apply learning
Demonstrate critical thinking
Demonstrate responsible and professional workplace behaviors
Respect and appreciate diversity
Use mathematics effectively
Work cooperatively

Assessment Strategies

- 1.1. on a written test without the use of a calculator.
- 1.2. on written text assignments

Criteria

You will know you are successful when:

- 1.1. you receive a passing score of at least 70 percent on the written test.
- 1.2. you complete the written test in one class period.
- 1.3. you must have a grade of 100% on text assignments.

Learning Objectives

- 1.a. Add whole numbers.
- 1.b. Subtract whole numbers.
- 1.c. Multiply whole numbers.
- 1.d. Divide whole numbers.
- 1.e. Apply order of operations to solve problems.
- 1.f. Develop calculator skills to solve basic number problems.

2. Solve problems using fractions

Linked Core Abilities

Apply learning
Demonstrate critical thinking

Demonstrate responsible and professional workplace behaviors
Integrate technology
Respect and appreciate diversity
Use mathematics effectively
Work cooperatively

Assessment Strategies

- 2.1. on a written test with use of a calculator
- 2.2. on written text assignments

Criteria

You will know you are successful when:

- 2.1. you receive a passing score of at least 70 percent on the written test.
- 2.2. you complete the written test in one class period.
- 2.3. you must have a grade of 100% on text assignments.

Learning Objectives

- 2.a. Work with fractions.
- 2.b. Recognize proper fractions.
- 2.c. Convert improper fractions to mixed numbers.
- 2.d. Write equivalent fractions.
- 2.e. Multiply fractions.
- 2.f. Divide fractions by reciprocal method.
- 2.g. Add fractions using common denominator.
- 2.h. Develop least common denominator.
- 2.i. Subtract fractions.
- 2.j. Develop calculator skills to solve fraction problems.

3. Solve problems using decimal numbers

Linked Core Abilities

Apply learning
Demonstrate critical thinking
Demonstrate responsible and professional workplace behaviors
Integrate technology
Respect and appreciate diversity
Use mathematics effectively
Work cooperatively

Assessment Strategies

- 3.1. on a written test with use of a calculator
- 3.2. on written text assignments

Criteria

You will know you are successful when:

- 3.1. you receive a passing score of at least 70 percent on the written test.
- 3.2. you complete the written test in one class period.
- 3.3. you must have a grade of 100% on text assignments.

Learning Objectives

- 3.a. Add and subtract decimal numbers.
- 3.b. Multiply and divide decimal numbers
- 3.c. Round decimal numbers.
- 3.d. Convert fractions to decimals.
- 3.e. Convert decimals to fractions.
- 3.f. Develop calculator skills to solve decimal problems.

4. Solve english and metric units of measurement problems

Linked Core Abilities

Apply learning
Communicate effectively
Demonstrate critical thinking

Demonstrate responsible and professional workplace behaviors
Integrate technology
Respect and appreciate diversity
Use mathematics effectively
Work cooperatively

Assessment Strategies

- 4.1. on a written test with use of a calculator
- 4.2. on written text assignments

Criteria

You will know you are successful when:

- 4.1. on a written test with use of a calculator
- 4.2. on written text assignments
- 4.3. you receive a passing score of at least 70 percent on the written test.
- 4.4. you complete the written test in one class period.
- 4.5. you must have a grade of 100% on text assignments.

Learning Objectives

- 4.a. Express English length unit measurements as metric length unit measurements.
- 4.b. Express metric length unit measurements as English length unit measurements.
- 4.c. Determine metric and inch measurements.