ACOM 0715

Division: Career and Technical Education
Department: Art and Graphic Comminications
Course: ACOM 0715
Title: Applied Basic Technical Math
Catalog Description:

This course is designed to give basic math skills, if needed, in preparation for Applied Technical Math or Principles of Technology. The student will study basic math principles used in the ATE division classes. This includes addition, subtraction, multiplication, and division of whole numbers, fractions and decimals. Also included is the application of precision and accuracy in problem solving as well as a study of the metric measuring system. Problem solving techniques are discussed along with percentages and averages.

General Education Requirements: N/A
Semesters Offered: TBA
Credit/Time Requirement: Credit: 2; Lecture: 2; Lab: 0
Clock/Hour Requirements: 30
Offered for Non-Credit: No
Justification:

Required by the program advisory committee for entry.

Student Learning Outcomes:

Upon successful completion of this course the student will be able to:

- Solve problems involving whole numbers, fractions, and decimals.
- Figure and use percentages.
- Apply averaging and estimating.
- Use math principles in solving industrial type problems.
- Know the importance of precision and accuracy as applied to industry.
- Convert between the English and metric measuring systems.
- Know how to figure areas of two dimensional shapes.
- Know how to figure the volume of three dimensional shapes.
- Become acquainted with different techniques in solving problems.

Content:

Course objectives will be achieved by providing each student with instructional and hands on experiences in the following areas:

- Addition, subtraction, multiplication and division of whole numbers, fractions, and decimals.
- Converting percentages, decimals, and fractions.
- Ways to solve problems using percentages.
- Using averaging in solving problems.
- Using estimating in solving problems.
- Working with precision, accuracy and tolerance.
- Measuring in and converting between English and metric units.
- Working with areas and volumes.
- Learning problem solving techniques.

General Education Outcomes:

Key Performance Indicators:

In class:

- The student will be evaluated by completed assignments for each topic and proficiency demonstrated on end of unit examinations.

Following class:

- Proficiency in this course is required for understanding and application of mathematical calculations that are used in subsequent courses in the ATE division programs.

Representative Text and/or Supplies:

- *Practical Problems in Mathematics*, current edition; Delmar Publishers.
- Supplemental instructional material.
- Scientific calculator (optional).

Optimum Class Size: 12
Maximum Class Size: 20

Signatures:

I hereby submit this course syllabus:

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I hereby find this course consistent with the goals and resources of the Art and Graphic Comminications Department:

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, , , Chair

I hereby find this course consistent with the goals and resources of the Career and Technical Education Division:

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Michael P. Medley, MBA, Assistant Professor, Dean

I have discussed the need for library resources related to this class with the person submitting the syllabus:

_____

Lynn Anderson, MLIS, Technical Services Librarian (Main Campus)

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Michelle Olsen, MLS, Campus Librarian (Richfield Campus)