Montgomery County Community College
BICST 1115
TECHNICAL MATH
0-21-0

Course Description:

This course is designed to provide the student with relevant theory and skills in solving practical, industrially based mathematical problems; Topics of instruction will include, but will not be limited to, calculating arithmetic expressions involving whole numbers, prime numbers, multiplication, division, basic geometry, fractions, decimals, ratio, proportion, and percentages. The appropriate use of English/metric conversions, exponents, square roots, basic graph interpretation, and basic algebraic expression (formulas) manipulation will be presented.

Requisites:

Previous Course Requirements
None

Previous or Concurrent Course Requirements
None

Course Comment(s)

None

Learning Outcomes Upon successful completion of this course, the student will be able to:	Learning Activities	Evaluation Methods
1. Student will be able to accurately complete arithmetic with operations, including whole and signed numbers; multiplication tables; fraction and decimal conversions; percents, powers, and roots	Worksheets; practice	Exams/quizzes
2. Understand the metric system and conversion of units	Worksheets; practice	Exams/quizzes

Learning Outcomes Upon successful completion of this course, the student will be able to:	Learning Activities	Evaluation Methods
3. Understand basic algebra; expression of operations; formula applications; ratio/proportions'	Worksheets/practice	Exams/quizzes
4. Understand geometry; basic volume and radius	Worksheets/practice	Exams/quizzes
5. Creation/interpretation of basic graphs and charts to portray and determine comparative and contrasting data; slop of the line	Worksheets/ practice	Exams/quizzes

At the conclusion of each semester/session, assessment of the learning outcomes will be completed by course faculty using the listed evaluation method(s). Aggregated results will be submitted to the Associate Vice President of Academic Affairs. The benchmark for each learning outcome is that *70% of students will meet or exceed outcome criteria*.

Sequence of Topics:

- Course Introduction
- Conduct arithmetic operations using whole numbers, fractions, and decimals for the solutions of typical technologically based concepts, processes and operations.
- Perform English and Metric computations involving numeric and literal problems.
- Analyze data and select an appropriate method to construct a chart, or graph, as well as decipher relationships among topical data.
- Solve fundamental expressions and common formulas using algebraic rules for addition, subtraction, multiplication, division, ratio, proportion, percentages, powers and roots, and transposition of terms, to include mixed operators.
- Apply appropriate terminology and rules for solving problems involving basic geometric entities and figures.

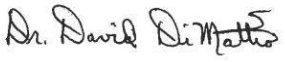
Learning Materials:

Workbook – Generated by instructor

Other learning materials may be required and made available directly to the student and/or via the College's Libraries and/or course management system.

Course Approval:

Prepared by: Bernadette DeBias Date: 11.30.2018
Approved by: Dr. David DiMattio, VP Workforce Development
Compliance Verification: Date:



Revised by: Date:
Dr. David DiMattio, VP, Workforce Development
Compliance Verification: Date:

This course is consistent with Montgomery County Community College's mission. It was developed, approved and will be delivered in full compliance with the policies and procedures established by the College.