**Technical Mathematics 3 credits**

**Course Description:**

This course focuses on mathematics topics relevant to a variety of trades and technical disciplines. Topics include: proportions, percentages, measurement, algebra, geometry, and trigonometry. An emphasis is placed on practical, contextual applications.

**Course Objectives:**

* Make use of and interpret percentages, ratios, and decimals.
* Convert units within the U.S. customary system, within the metric system, and between these systems.
* Perform operations with measured values, following proper rounding conventions.
* Evaluate the accuracy and precision of values resulting from measurement.
* Make use of and interpret scientific notation.
* Evaluate formulas, simplify algebraic expressions, and solve one-variable linear equations.
* Translate English phrases and sentences into algebraic expressions and equations.
* Make use of geometric relationships involving intersecting lines and triangles, including the Pythagorean Theorem.
* Calculate perimeter, area, surface area, and volume as applicable to two- and three-dimensional objects.
* Solve right triangles using trigonometric ratios.
* Solve practical problems using one or more of the skills above.

**Suggested additional course objectives:**

* Solve systems of two linear equations in two variables.
* Make use of angles in radian measure to calculate arc length, sector area, and angular speed.

**Note:** The above course objectives must be included in the Technical Mathematics (I) courses offered by MCCS campuses. Additional topics may be added at each college’s discretion.