



## MTH 111: Technical Mathematics for Fire Science

This course provides the necessary mathematical tools for solving problems encountered in physics, chemistry, and fire science courses. This course is required of Fire Science students. Topics included are operations with whole numbers, fractions and decimals, percents, ratio and proportion, graphing, powers and roots, basic algebra, basic geometry and measurement, including metrics. Examples of mathematics applied to fire science are given. Three lecture hours per week. Instructional Support Fee applies. Gen. Ed. Competencies Met: Quantitative and Symbolic Reasoning.

### Course Student Learning Outcomes

1. Perform all operations with fractions.
2. Perform all operations with decimals.
3. Measure and calculate distance, area, volume, and weigh.
4. Work with percentages.
5. Work with ratios and proportions.
6. Calculate powers and roots.
7. Work with simple algebra.
8. Evaluate formulas.
9. Work with lines, triangles, plane figures and solids.

**Credits:** 3

**Program:** Mathematics