

TWO Day Math

1.1 CECs, Water Technical

You must attend the entire class to earn the CECs



This class starts with basic math concepts such as “how to use a calculator”, “how to solve for X” and “how to use and apply mathematical formulas”. We then go into practical mathematics for water operators, starting with basic concepts on day one and advancing to mathematics needed for the seasoned operator, such as the allowable leakage calculation for new water mains and the basic Bernoulli equation.

Goal: To give operators a basic mathematical foundation that will allow them to approach any math problem with confidence. To inspire students to believe that a math problem is “just a problem” that can be approached and solved like any problem they encounter.

Agenda Day 1: Two Day Math

8:30am – 10am	Basic Math Concepts
10:15am – Noon	Areas and Volumes
Noon	LUNCH (provided)
12:45pm – 2pm	Chemical feed and disinfection
2:15pm – 3:30pm	Calculating pounds & ppm chlorine
3:30pm	Adjourn



Agenda Day 2: Two Day Math

8:30am – 10am	Hydraulic Calculations
10:15am – Noon	Horsepower, Continuity Equation, etc.
Noon	LUNCH (provided)
12:45pm – 2pm	Bernoulli Equation
2:15pm – 3:30pm	Allowable leakage and other calculations
3:30pm	Adjourn

About your instructor: Mike Engels provides mathematics instruction to water and wastewater operators across Michigan. Time after time, students in those courses express their gratitude to Mike for his ability to convey mathematics in a way they can understand.