



Mathematics Review for Water Operations

MOE Director Approved, 1.3 CE Units (2 day course)

This course is designed as a review of basic mathematical functions common to the drinking water industry. It is not intended to be a crash course to learn math functions for the first time. The course will benefit operators in their day to day operations as well as those wanting to refresh their math skills prior to writing an exam (OIT, level 1 and level 2) Classroom exercises using common, practical water related scenarios will be used. The majority of the course material will be presented by computer projector in MS PowerPoint format, with additional material using paper flip charts.

Topics covered on this 2 day course:

Temperature conversion calculations from Fahrenheit to Celsius and back

Calculate the area and volume of squares, rectangles and cylinders

Calculate percent and perform conversions from percent to decimal values

Understand the relationship between parts per million and milligrams per litre

Understand the relationship between percent and parts per million

Understand and be able to manipulate the dilution calculation, $C_1V_1 = C_2V_2$

Understand and be able to perform conversions using the "Factor Label Method"

Calculate the speed of a swab through a pipe

Understand the relationship between pressure and "foot column of water"

Understand what specific gravity is and its relationship to weight

Convert values based upon specific gravity into volume or weight

Calculate feed rates for various solutions