

Day 1

8:30 am – 9:30 am

Welcome & Introductions

- Setting the stage
- Wastewater Treatment
- The Process
- WEF/AWWA
- The Model
- Terminology & Definitions
- Quiz

9:30 am – 11:30 am

Wastewater Math

- ABC Formula Conversion Table
Order of operations, fractions/ratios, unit conversions, surface area, volume, pounds (mass), feed rate, detention time, surface loading rate, weir overflow rate, solids loading rate, sludge volume Index (SVI)
- Quiz

11:30 am – 12:30 pm

- LUNCH (on your own)

12:30 pm – 1:30 pm

Wastewater Sources, Characteristics, and Basic Hydraulics

- 5 Key sources
- Characteristics
 - Physical
 - Chemical
 - Biological
- Hydraulic terms & math problems
- Quiz

1:30 pm – 2:30 pm

Preliminary Treatment

- Mechanical treatment
- Quiz

2:30 pm – 3:30 pm

Primary Treatment

- Sedimentation
- Quiz

3:30 pm – 4:30 pm

Secondary Treatment

- Lagoons
- Fixed film
 - Trickling filters & RBC's
- Quiz

Day 2

8:30 am – 10:30 am

Activated Sludge

- Overview of the biological process
- Design modifications
- Process operations
- Quiz

10:30 am – 11:30 am

Disinfection

- Waterborne diseases
- Chlorination for disinfection
- Alternatives to chlorine
- Quiz

11:30 am – 12:30 pm

- LUNCH (on your own)

12:30 pm – 1:30 pm

Wastewater Solids Processing

- Treatment methods
- Thickening
- Stabilization
- Dewatering
- Quiz

1:30 pm – 2:30 pm

Sampling, Testing, and Reporting

- Quiz

2:30 pm – 3:00 pm

Safety

- Standard operating procedures
- Quiz

3:00 pm – 3:30 pm

Laboratory

- Laboratory terms
- Glassware
- Common procedures
- Quiz

3:30 pm – 4:30 pm

Final class review & exam

- Individual questions
- 50 question exam