

ERTC FALL 2021 SCHEDULE

Daytime Workshop Schedule

Daytime workshops meet from 8:00 a.m. to 4:30 p.m.

| COURSE ID | DATES | TITLE | LOCATION | COST |
|-------------|----------------|----------------------------|-------------|-------|
| IEPA #16 | Aug. 3-6 | Cross Connection Control | Springfield | \$575 |
| IEPA #14393 | Aug. 9-13 | Wastewater Short School | ERTC | \$575 |
| IEPA #16 | Sept. 14-17 | Cross Connection Control | Rockford | \$575 |
| IEPA #14393 | Sept. 27-Oct.1 | Wastewater Short School | Rockford | \$575 |
| IEPA #16 | Oct. 12-15 | Cross Connection Control | Joliet | \$575 |
| IEPA #11440 | Oct. 28-29 | Class 1 & 2 Wastewater Ops | Champaign | \$300 |



“Come visit one of the best kept training secrets in Illinois”
“When the economy slows down, we keep going.”

An Alternative to a 4-year Degree

Please call or email the ERTC office if you have any questions:
(618) 650-2030 ertcinfo@siue.edu

Virtual Workshop Courses

Virtual Water workshops meet from 1:00 p.m. to 4:00 p.m.

Virtual Wastewater and Math Review workshops meet from 1:00 p.m. to 3:00 p.m.

| COURSE ID | DATES | TITLE | COST |
|--------------|---------------|--|-------|
| IEPA # 15948 | July 29 | Class 4 Wastewater Math | \$40 |
| IEPA # 14975 | July 30 | Class D & C Water Math Review | \$40 |
| IEPA # TBD | Aug. 26 | Wastewater Management, Regs, & Communications | \$40 |
| IEPA #14585 | Aug.30-Sept.3 | Class D & C Water | \$300 |
| IEPA # TBD | Sept. 16 | Activated Sludge Process Control | \$40 |
| IEPA # TBD | Oct. 14 | Nutrient Removal | \$40 |
| IEPA # 15948 | Oct 27 | Class 4 Wastewater Math | \$40 |
| IEPA # 14975 | Oct. 28 | Class D & C Water Math Review | \$40 |
| IEPA #14584 | Nov. 8-12 | Class B Water | \$300 |
| IEPA # TBD | Nov. 18 | Wastewater Sludge Treatment and Disposal | \$40 |
| IEPA #14583 | Nov. 29-Dec.3 | Class A Water | \$300 |
| IEPA # TBD | Dec. 16 | Collection, Preliminary, and Primary Treatment | \$40 |

Water Evening Courses

IEPA #13493 CLASS B & A WATER SUPPLY

Hours: 36

Fee: \$ 500

Location: ERTC (SIUE Campus)

Dates: 8/25 - 11/10

Time: 6-9 p.m.

Schedule: Wednesdays, 12 weeks

Instructor: Drew Hoelscher

This course is intended to assist in preparing for the Class B and A certification exams. Groundwater treatment, ion exchange softening, surface water treatment and lime softening are covered, along with related math and chemistry. Topics include groundwater quality, oxidation, iron and manganese control, surface water quality, clarification, filtration, taste and odor control, process waste disposal, jar testing, sampling, and operation reports.

Wastewater Evening Courses

IEPA #14165 BASIC WASTEWATER TREATMENT (Class 4) Hours: 30

Fee: \$ 450

Location: ERTC (SIUE campus)

Dates: 10/05 - 12/07

Time: 6-9 p.m.

Schedule: Tuesdays, 10 weeks

Instructor: Jim Winslade

Sources and characteristics of wastewater are taught. Topics include biological treatment principles, process control, normal operation and preventative maintenance for collection systems, preliminary treatment devices, primary treatment devices, stabilization ponds, and disinfection systems. Federal and state laws, rules and regulations are also discussed. One section of the course will include a hands-on demonstration of pump operation and maintenance.

FALL 2021 WORKSHOP DESCRIPTIONS

Class D/C Water

Distribution Systems
Chemical Feed applications
(15 hours)

General design, operation, and maintenance procedures for water distribution systems. Topics include pumps and hydraulics, water mains, water services, hydrants, meters, valves, storage, cross connections, regulations, sampling, and related math.

General design, operation and maintenance procedures for wells and chemical feed installations. Topics include pumps, chlorination/chloramination, fluoridation, corrosion control treatment, sequestration, sampling and reporting, and all topic related math.

Class B Water

Groundwater Treatment
Filtration
Ion Exchange Softening
(15 hours)

General design, operation and maintenance of groundwater treatment plants. Topics include iron and manganese control/removal, filtration, and topic related math.

General design, operation and maintenance procedures for ion exchange softening and related math. The second half of day two covers class D/C material as a review.

Class A Water

Surface Water Treatment
Lime Softening
Membrane Filtration
(15 hours)

Surface water treatment topics include taste and odor control, clarification, jar testing, membrane filtration, and related math and chemistry.

Surface water and lime softening with related math. The second half of day two covers class D/C/B material as a review.

Cross Connection Control

(28 hours)
(24 hours/operators)

Includes demonstration of inspection and testing procedures for reduced pressure zone (RPZ) and double check valve back-flow preventers. Each participant is provided opportunities to perform inspection and testing procedures. To successfully complete the workshop, participants must pass the written exam and properly perform hands-on inspection and testing procedures on RPZ and double check valve backflow preventers.

There is only **one** chance to pass each section of the exam (written and hands-on). Failure of either section will require the individual to retake the entire course again at a later date at **FULL COST**. **Licensed plumbers** will be eligible for IEPA approval to inspect and test RPZ and double check valve backflow preventers upon successful course completion. Certified water operators are eligible for a limited IEPA approval.

Class D/C Water Math Review

(2 hours)

General overview to aid in preparing for Class D/Class C drinking water certification. Topics include general math, unit conversions, solution percentages, perimeter/circumference, area, volume, detention time, well math, pump math, pounds formula, solution formula, chlorination math, and fluoridation math.

Class 4 Wastewater Math Review

(2 hours)

General overview to aid in preparing for Class 4 wastewater certification. Topics include general math, unit conversions, percent removal, perimeter/circumference, area, volume, detention time, velocity, pounds formula, population equivalents, hydraulic loading of ponds, and organic loading of ponds.

Virtual Wastewater Class Offerings

Wastewater Management, Regulations, and Communications:

This 2-hour online session deals with the basic management skills and knowledge needed to successfully manage a wastewater facility. It will include basic financial planning, employee relations, and communication skills. It will also consider governmental regulations and deadlines that must be considered as a wastewater system manager.

Activated Sludge Process Control:

This 2-hour online session deals with the skills needed to operate, facilitate process control, and troubleshoot different activated sludge processes. The processes will include: Conventional Activated Sludge, Step Feed, Extended Aeration, Oxidation Ditches, Sequencing Batch Reactors, and others. It will include the use of micro-biology in making process control decisions. It will also include Laboratory Tests and Mathematical Calculations needed for Process Control.

Nutrient Removal:

This 2-hour online session will introduce the processes used for both Biological Nutrient Removal and Chemical Nutrient Removal. It will include processes widely used at this time such as the Bardenpho Process, Sequencing Batch Reactors, and Countercurrent Aeration . It will also deal with newer processes such as Anammox. Control of chemical addition for Phosphorus will also be covered.

Sludge Treatment and Disposal:

This 2-hour online session will include the operation of both Anaerobic and Aerobic digestion systems including Auto Thermic Aerobic Digestion. It will also discuss alternative sludge stabilization techniques including lime stabilization and composting. It will also deal with equipment used for the thickening, dewatering, and land application of wastewater sludge.

Collection, Preliminary, and Primary Treatment:

This 2-hour online session will cover the processes used to transport and do basic treatment of wastewater before it enters the Secondary Processes. Successful operation of a secondary wastewater treatment system is often dependent on the proper operation of the systems that proceed it. It will include pumps, screens, grit chambers, flow measurement, etc.

Wastewater Operator Short School (32 hours)

An intensive training session to develop skills specific to process control and operation of Class 4, 3, 2 and 1 plants. All aspects of plant operations, process control tests and their interpretation, process control math, safety reports and records for each specific class are covered. On Friday afternoon, the IEPA wastewater certification exam is given for eligible students.

Class 4: Stresses stabilization ponds, collection systems and chlorination Systems. Class 4 certification exam materials are reviewed.

Class 3: Stresses trickling filters and RBC units. Class 3 certification exam materials are reviewed.

Class 2/1 Activated sludge treatment plants with aerobic and anaerobic sludge Digesters are stressed. Class 2 and 1 exam materials are reviewed.

Students must obtain a Letter of Admission (LOA) from IEPA to take the certification exam. At the IEPA website, www2.illinois.gov/epa Search "Exam Cert" Download and complete the "Examination Request for Wastewater Operator Certification" Questions? IEPA Wastewater Certification Program - (217) 782-9720

ENVIRONMENTAL RESOURCES TRAINING CENTER
SOUTHERN ILLINOIS UNIVERSITY EDWARDSVILLE
EDWARDSVILLE, ILLINOIS 62026-1075

NONPROFIT ORG
U.S. Postage
P A I D
Permit No 4678
St. Louis, MO



CANCELLATION POLICY: ERTC reserves the right to cancel a course with less than ten students. If we cancel a course, you will be notified and your preregistration fee will be refunded. If we postpone a course, you will be notified of the rescheduled date. If you cannot attend a rescheduled date, you will receive a full refund.

REFUND POLICY: You must cancel a course registration no later than one day before the first scheduled class meeting. If you do not cancel and do not attend, you will receive no refund.

CROSS CONNECTION CONTROL COURSES: There will be no refund for any registration not cancelled at least five working days before the first day of the workshop. If you cancel twice for the same type of workshop, you will forfeit your registration fees and be required to wait at least six months before any registration will be accepted.