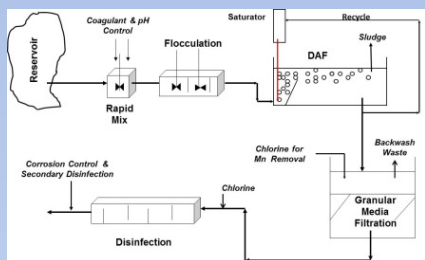


30TH YEAR
INSTITUTE IN WATER QUALITY & TREATMENT
AUGUST 9-11, 2021, NORTHAMPTON MA
!DISCOUNTED EARLY REGISTRATION THROUGH JUNE 30, 2021!



Course Objectives:

- To present the fundamentals of drinking water treatment processes
- To present new developments in drinking water treatment
- To apply course materials to existing and proposed drinking water requirements
- To illustrate applications of principles and practice using pilot-scale plant and full-scale plant case studies

Course Topics:

- Regulations
- Particulate Matter & Turbidity
- Organic Constituents
 - Natural Organic Matter
 - Micropollutants
- Coagulation
- Clarification
 - Gravity Settling
 - Dissolved Air Flotation
- Media Filtration
 - MF/UF Membrane Filtration
 - Air Stripping
 - Ozonation
 - Iron & Manganese Control
 - DBPs in Distribution Systems
 - Pb/Cu Chemistry & Control
 - UV Disinfection & AOPs
 - Chemical and Physical Measurements
- Conceptual Design
- Climate Change Impacts
- Case Studies

Institute Faculty

David A. Reckhow, Institute Director, is Research Professor in the Environmental and Water Resources Engineering Program at UMass Amherst. He has over 35 years of research and professional experience in water treatment with emphasis on natural organic matter, disinfection byproduct control and ozonation.

James K. Edzwald is Professor Emeritus at UMass Amherst. He has taught graduate classes in Water Chemistry, Physical and Chemical Water Treatment Processes, and Design of Water and Wastewater Facilities. He has more than 45 years of professional experience in water treatment with emphasis on coagulation, dissolved air flotation, seawater pretreatment for desalination, filtration, removal of TOC, DBP precursors and *Cryptosporidium*.

John E. Tobiason is Professor in the Environmental and Water Resources Engineering Program at UMass Amherst. He teaches graduate level courses in Particles in Water, Drinking Water Treatment Processes, and Design. He has over 35 years of research and professional experience in water treatment with emphasis on particles in water, coagulation, media and membrane filtration, and manganese control.

Special Considerations due to COVID-19

Enrollment is limited to 25, due to current restrictions on spacing at the course site. Priority will be given to early registrations and those who will have been vaccinated at least 2 weeks prior to August 9th.

Registration and Additional Information

The 3-day institute will begin at 8AM on Monday August 9th and will end by 5PM on Wednesday, August 11th, 2021. The registration fee covers all instructional costs, a set of course notes, continental breakfast, morning and afternoon coffee breaks each day and an evening reception. Lodging is not included. Payment by credit card may be made online or by check (<https://sites.google.com/site/instdwt/>). For early registration by June 30, 2021 the fee is \$1050; the fee is \$1150 after June 30, 2021 and the deadline for registration is July 20, 2021. Course enrollment is limited to 25 people and early registration is encouraged. Registrations will be confirmed by email. Cancellations made before July 15th will receive a full refund less a \$100 cancellation fee. There will be no refunds after this date. For more information, please contact Dave Reckhow at dreckhow@gmail.com

Course Location: The Hotel Northampton, 36 King Street, Northampton, MA