34th Year!

University of Massachusetts Amherst BE REVOLUTIONARY

2025 UMass Water Academy: Institute in Drinking Water Treatment

August 11-13, 2025 – 3-Day Basic Course
August 14, 2025 – 1-Day Advanced Course

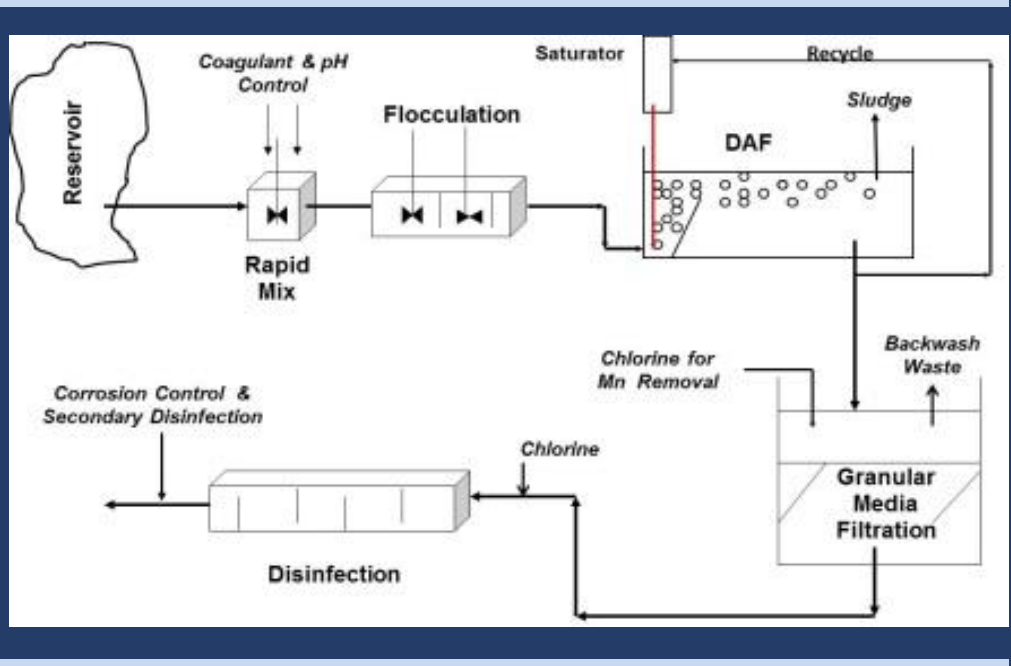
Hotel Northampton, Northampton, MA

Course objectives:

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

3-Day Basic 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
- Measurements:
  - Chemical / Physical
- Conceptual Design
- Climate Change Impacts
- Case Studies



1-Day Advanced Course Topics:

- Types of challenging and emerging contaminants
- Options for controlling emerging contaminants
- Advanced Oxidation Processes
- Ion Exchange
- Activated Carbon Adsorption
- Saltwater chemistry
- Desalting Membrane Treatment
- Control of algal toxins and perfluorinated compounds
- Case Studies

Institute Faculty

David A. Reckhow → Professor Emeritus in the Environmental and Water Resources Engineering Program at UMass Amherst with over 45 years of research and professional experience in water treatment with emphasis on natural organic matter, disinfection byproduct control and ozonation.

John E. Tobiason, P.E. → Professor Emeritus, UMass Amherst Department of Civil and Environmental Engineering, with over 45 years of research and professional experience in water treatment with emphasis on particles in water, coagulation, media and membrane filtration, and manganese control.

Mariana Lopes → Assistant Professor in the Environmental and Water Resources Engineering Program at UMass Amherst with research experience in drinking water quality and treatment with an emphasis on ultraviolet disinfection and biofilm prevention, light driven reactions, PFAS removal and destruction, and nano-technology enabled water treatment.

Sean McBeath → Assistant Professor in the Environmental and Water Resources Engineering program at the University of Massachusetts Amherst with research experience in drinking water treatment and an emphasis on electrochemical water treatment processes, such as electro-oxidation and electro-coagulation, drinking water quality and decentralized systems approaches.

Registration

Select course and submit payment: https://general-umass.nbsstore.net/institute-in-drinking-water-treatment.

Registration covers course costs, course notes, coffee breaks and an evening reception. Lodging is not included. Registration deadline: July 28. Cancellations before July 21 receive full refund less $75 cancellation fee. No refunds after this date. **Questions:** contact Institute Director, Nick Tooker at nbtooker@umass.edu

Additional Information

Course is held from **8am-5pm daily** (day 1 evening reception for 3-day course). Reduced rate rooms available at the Hotel Northampton (ask for the UMass Drinking Water group). Bradley International Airport, north of Hartford, CT is a one-hour drive to Northampton. Valley Transporter provides shuttle service from the airport and can be reached at: 413-253-1350 or Vt@valleytransporter.com.