



# Training Course Agenda

399 – Design, Operation, and Qualification of Pharmaceutical Water Systems

## DAY 1

**8:30**      **Welcome and Introductions**

9:00      Definition of Pharmaceutical Waters, Regulatory and Validation Considerations

**10:30**      **Coffee/Tea Break**

10:45      Impurities in Raw Water

**12:00**      **Lunch**

13:00      Pretreatment Techniques

**14:30**      **Coffee/Tea Break**

14:45      Ion Removal – Reverse Osmosis

**16:00**      **End of Day 1**

## DAY 2

**8:30**      **Recap Day 1**

9:00      Ion Removal – Ion Exchange, Deionization, and Continuous Electrodeionization

**10:30**      **Coffee/Tea Break**

10:45      Polishing Components

**12:00**      **Lunch**

13:00      Distillation and Pure Steam Generation

**14:30**      **Coffee/Tea Break**

14:45      Storage Systems and Accessories – Ozone System and Accessories

**16:00**      **End of Day 2**



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## DAY 3

**8:30**      **Recap Day 2**

9:00      Distribution Systems, Biofilm, and Microbial Control

**10:30**      **Coffee/Tea Break**

10:45      Instrumentation and Controls – Validation I

**12:00**      **Lunch**

13:00      Validation II

**14:30**      **Coffee/Tea Break**

14:45      Case Histories

**16:00**      **End of Training Course**