

Water Reuse

Module Perspective

1. What is the topic?
2. Who is (are) the audience(s)?
3. What is the course goal?
4. What are the learning objectives?
5. What are you trying to cover?
6. How do you plan to do this?

Responses

1. The topic for this course module is Water Reuse. Wastewater is an important component of our water resources. A greater emphasis will be placed on recycling our wastewater in the future.
2. The target audience includes upper division (junior and senior) undergraduates and graduate students from engineering and non-engineering disciplines.
3. The goal for this module is to provide students a basic understanding of the mechanisms for reusing wastewater to reduce fresh water usage. Since wastewater contains constituents with potential health and environmental risks, proper management is essential for safe and effective use of this resource.
4. Upon completing this module, students will have:
 - a. A fundamental understanding of how wastewater can be reused,
 - b. An understanding of potential health risks associated with wastewater reuse
 - c. A functional knowledge of the mechanisms for reuse and the critical constituents to be evaluated to see if the wastewater is suitable for reuse through that mechanism.
5. Topics included in this course module include:
 - a. What is water reuse and description of important terms
 - b. How wastewater can be a water resource
 - c. Health considerations when reusing wastewater
 - d. Mechanisms for reusing wastewater and key considerations when implementing that mechanism
 - e. Key design considerations
 - f. Operational requirements
 - g. Management issues.
6. This course module includes syllabus, text, and lecture notes, example problems to be worked by the instructor, in-class problems to be worked by students, PowerPoint notes, and out-of-class problems.