

WWTR 125 Course Outline as of Fall 2025**CATALOG INFORMATION**

Dept and Nbr: WWTR 125 Title: PRETREAT FACILITY INSPEC

Full Title: Industrial Waste Pretreatment Facility Inspection

Last Reviewed: 8/26/2024

Units	Course Hours per Week		Nbr of Weeks		Course Hours Total	
Maximum	3.00	Lecture Scheduled	3.00	17.5	Lecture Scheduled	52.50
Minimum	3.00	Lab Scheduled	0	6	Lab Scheduled	0
		Contact DHR	0		Contact DHR	0
		Contact Total	3.00		Contact Total	52.50
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 105.00

Total Student Learning Hours: 157.50

Title 5 Category: AA Degree Applicable

Grading: Grade or P/NP

Repeatability: 00 - Two Repeats if Grade was D, F, NC, or NP

Also Listed As:

Formerly: ENVT 125

Catalog Description:

Students will learn the roles and responsibilities of a pretreatment facility inspector, including development, application and implementation of regulations, inspection procedures, safety, sampling protocols, flow monitoring, pollutants of concern, pollution prevention and source control technology, enforcement and emergency response, and pretreatment administration. A field trip to an industrial treatment facility is required.

Prerequisites/Corequisites:**Recommended Preparation:****Limits on Enrollment:****Schedule of Classes Information:**

Description: Students will learn the roles and responsibilities of a pretreatment facility inspector, including development, application and implementation of regulations, inspection procedures, safety, sampling protocols, flow monitoring, pollutants of concern, pollution prevention and source control technology, enforcement and emergency response, and pretreatment

administration. A field trip to an industrial treatment facility is required. (Grade or P/NP)

Prerequisites/Corequisites:

Recommended:

Limits on Enrollment:

Transfer Credit:

Repeatability: Two Repeats if Grade was D, F, NC, or NP

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree:	Area	Effective:	Inactive:
CSU GE:	Transfer Area	Effective:	Inactive:

IGETC:	Transfer Area	Effective:	Inactive:
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CSU Transfer:	Effective:	Inactive:
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UC Transfer:	Effective:	Inactive:
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CID:

Certificate/Major Applicable:

Both Certificate and Major Applicable

COURSE CONTENT

Student Learning Outcomes:

At the conclusion of this course, the student should be able to:

1. Perform fundamental duties of an industrial pretreatment inspector.
2. Differentiate between federal, state, and local pretreatment standards and regulations.

Objectives:

At the conclusion of this course, the student should be able to:

1. Apply regulations to the development of a pretreatment plan and/or discharge permit for a facility.
2. Identify best management practices that support proper industry compliance with pretreatment regulations.
3. Explain source control and its benefits for the wastewater treatment plant.
4. Explain sampling requirements and processes.
5. Develop a monitoring and sampling plan.
6. Explain uses of databases for pretreatment program tracking and administration.
7. Implement pollution prevention control measures and best management practices.
8. Develop an enforcement plan or policy for facility violations and noncompliance.

Topics and Scope:

- I. Roles of the Pretreatment Facility Inspector
 - A. Definition of pretreatment
 - B. Pollution prevention
 - C. Requirements and responsibilities
- II. Pretreatment Program Administration
 - A. Planning

- B. Funding
- C. Required elements
- D. Databases
- E. Hazardous waste
- III. Applicable Regulations
 - A. Sewer use code
 - B. Federal regulations
 - C. Permit conditions and compliance
- IV. Overview of Wastewater Treatment Plant
 - A. Influent
 - B. Effluent
- V. Typical Regulated Industries
 - A. Inspection of a typical industrial facility
 - B. Standard industrial codes
- VI. Safety in Pretreatment Inspection and Sampling
 - A. General safety considerations
 - B. Hazardous materials
 - C. Confined space
 - D. Industry-specific hazards
- VII. Sampling Procedures for Wastewater
 - A. Rationale
 - B. Preparation
 - C. Collection
 - D. Documentation
- VIII. Wastewater Flow Monitoring
 - A. Requirements
 - B. Methods
 - C. Supervisory Control and Data Acquisition (SCADA)
- IX. Industrial Wastewaters
 - A. Manufacturing process types
 - B. Effects on treatment system
- X. Source Control
 - A. Modification of manufacturing process
 - B. Pollution prevention methods by industry
 - C. Best management practices
- XI. Enforcement
 - A. Warning notice
 - B. Notice of violation
 - C. Administrative order
 - D. Consent decree
 - E. Termination of services
 - F. Civil and criminal penalties
- XII. Emergency Response Procedures
 - A. Response plan
 - B. Roles
 - C. Enforcement
 - D. Spill reporting

Assignment:

1. Reading assignments (10-30 pages per week)
2. Problem solving homework (weekly)

3. Quizzes (8-10)
4. Final exam
5. Field trip report(s)

Methods of Evaluation/Basis of Grade:

Writing: Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

Field trip report(s)	Writing 5 - 10%
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Problem Solving: Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Homework problems	Problem solving 30 - 50%
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Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

None	Skill Demonstrations 0 - 0%
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Exams: All forms of formal testing, other than skill performance exams.

Quizzes and final exam	Exams 40 - 60%
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Other: Includes any assessment tools that do not logically fit into the above categories.

Attendance and participation, including field trip(s)	Other Category 5 - 10%
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Representative Textbooks and Materials:

Pretreatment Facility Inspection. 4th ed. California State University Sacramento (CSUS) Office of Water Programs. 2021.

Instructor prepared materials