

CATALOG INFORMATION

Dept and Nbr: WWTR 125 Title: PRETREAT FACILITY INSPEC
Full Title: Industrial Waste Pretreatment Facility Inspection
Last Reviewed: 1/28/2019

| 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 | 5 | 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:
This course covers the roles and responsibilities of a pretreatment facility inspector, including development, application and implementation of regulations, inspection of typical industries, safety, sampling procedures for wastewater, wastewater flow monitoring, industrial wastewater composition, pretreatment and source control technology, industrial inspection procedures, emergency response and pretreatment administration.

Prerequisites/Corequisites:

Recommended Preparation:

Limits on Enrollment:

Schedule of Classes Information:
Description: This course covers the roles and responsibilities of a pretreatment facility inspector, including development, application and implementation of regulations, inspection of typical industries, safety, sampling procedures for wastewater, wastewater flow monitoring, industrial wastewater composition, pretreatment and source control technology, industrial inspection

procedures, emergency response and pretreatment administration. (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: |
| CSU Transfer: | | Effective: | Inactive: |
| UC Transfer: | | Effective: | Inactive: |

CID:

Certificate/Major Applicable:

Both Certificate and Major Applicable

COURSE CONTENT

Outcomes and Objectives:

Upon completion of the course, students will be able to:

1. Apply pretreatment regulations to development of a pretreatment plan/permit for a given facility.
2. Identify business practices that support proper industry conformance 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.

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- categorical
- C. Permit conditions
- D. Permit violations

IV. Overview of Wastewater Treatment Plant

- A. Influent
- B. Effluent

V. Typical Regulated Industries

- A. Inspection of a typical industry
- B. Standard Industrial Codes

VI. Safety in Pretreatment Inspection and Sampling Work

- A. General safety considerations
- B. Hazardous materials
- C. Confined Space
- D. Industry-specific hazards

VII. Sampling Procedures for Wastewater

- A. Reasons
- B. Preparation
- C. Collection
- D. Documentation

VIII. Wastewater Flow Monitoring

- A. Requirements
- B. Methods

IX. Industrial Wastewaters

- A. Manufacturing process types
- B. Effects on treatment system

X. Pretreatment Technology (Source Control)

- A. Modification of manufacturing process
- B. Pollution prevention methods by industry

XI. Emergency Response Procedures

- A. Response plan
- B. Roles
- C. Enforcement
- D. Spill reporting

Assignment:

1. Reading assignments averaging 20 pages per week.
2. Weekly problem solving homework assignments related to pretreatment facility inspection.
3. Quizzes (10-15).
4. Final exam (objective questions).
5. Field trip and report (3-5 pages).

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

Writing
5 - 10%

Problem Solving: Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Homework problems

Problem solving
50 - 60%

Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

None

Skill Demonstrations
0 - 0%

Exams: All forms of formal testing, other than skill performance exams.

Quizzes; final exam.

Exams
30 - 40%

Other: Includes any assessment tools that do not logically fit into the above categories.

Field trip

Other Category
5 - 10%

Representative Textbooks and Materials:

1. Pretreatment Facility Inspection, CSUS Office of Water Programs, 3rd edition, 1996, (classic)
1. Instructor prepared materials