

**PALOMAR COLLEGE**  
**COURSE OUTLINE OF RECORD FOR**  
**DEGREE CREDIT COURSE**

Transfer course     A.A. degree applicable course  
(check all that apply)

**COURSE NUMBER AND TITLE:** ENVT 140 Hazardous Waste Management Applications

**UNIT VALUE:** 4

**MINIMUM NUMBER OF SEMESTER HOURS:** 96

**BASIC SKILLS REQUIREMENTS:** Appropriate language and computational skills.

**ENTRANCE REQUIREMENTS**

**PREREQUISITE:** None.

**COREQUISITE:** None.

**RECOMMENDED PREPARATION:** CHEM 102.

**SCOPE OF COURSE:**

An overview of hazardous waste regulation with emphasis in generator compliance, site investigation and remediation, permitting, enforcement, and liability. Provides hands-on application of the regulations at the technician level. CSU

**SPECIFIC COURSE OBJECTIVES:**

Successful students will be able to:

1. Describe the hazardous waste regulatory framework.
2. Identify environmental resources available.
3. Demonstrate proper handling of waste manifest and storage containers.
4. Demonstrate preparation of a Phase I environmental audit.

**CONTENT IN TERMS OF SPECIFIC BODY OF KNOWLEDGE:**

- I. Regulatory Overview
  - A. Hazardous material versus hazardous waste
    1. Hazardous waste characteristics
    2. Hazardous waste classification
  - B. Regulatory agencies and jurisdiction
    1. Federal

2. State
    3. Regional
    4. Local
  - C. Key statutes
  - D. Key regulations
  - E. Laboratory exercises
    1. Case study: determining if a waste is hazardous
    2. Jurisdictional conflicts
- II. Generator Requirements I
  - A. Cradle-to-grave liability
  - B. Storage requirements
  - C. The manifest
  - D. Laboratory exercise
    1. Preparation of the hazardous waste manifest
- III. Generator Requirements II
  - A. Hazardous waste minimization
  - B. Fees
  - C. Bi-annual reporting
  - D. Extremely hazardous waste permits
  - E. Enforcement
  - F. Laboratory exercises
    1. Preparation of bi-annual report
    2. Preparation of extremely hazardous waste permit
- IV. Generator Requirements III
  - A. Clear Air Act
  - B. Porter cologne
  - C. Waste discharge requirements
  - D. Laboratory exercises
    1. Applying for air permits
    2. Reporting air quality under AB2588
- V. Generator Requirements IV
  - A. Clean Air Act
  - B. The bubble system
  - C. Local AQMD regulations
  - D. Laboratory exercises
    1. Oral reports on treatment, recycling, and disposal technology
- VI. Transportation, Treatment, and Disposal
  - A. Transport requirements
  - B. Recycling
  - C. Land ban
  - D. laboratory exercise
    1. Oral reports on treatment, recycling, and disposal technology
- VII. Superfund
  - A. CERCLA/SARA overview
  - B. State superfund

- C. Liability
  - 1. Government
  - 2. Private party
- D. Release reporting
- E. Laboratory exercise
  - 1. Release reporting workshop

#### VIII. Site Mitigation

- A. The decision tree
- B. Preliminary assessments
- C. Consent orders
- D. Fees
- E. Site characterization
- F. Laboratory exercises
  - 1. Sampling equipment identification
  - 2. Sampling techniques

#### IX. Sampling and Analysis

- A. QA/QC
- B. Sampling plans
- C. Analytical methods
- D. Chain of custody
- E. Laboratory exercise
  - 1. Analytical techniques

#### X. RI/FS Process

- A. Remedial investigations
- B. Feasibility studies
- C. Risk assessments
- D. Cleanup standards
- E. Community relations
- F. Laboratory exercise
  - 1. Preparing a risk assessment

#### XI. Special Topics

- A. Permitting
- B. Infectious waste
- C. Household hazardous waste
- D. Laboratory exercise
  - 1. Selection of remedial action
  - 2. Mock public hearing

#### XII. Real Estate Transactions

- A. Buyer and seller
- B. Landlord and tenant
- C. Real estate brokers
- D. Lenders
- E. Condemnation

- F. Due diligence concept
- G. Laboratory exercise
  - 1. Preparing a phase I environmental audit

**REQUIRED READING:**

California Chamber of Commerce. Hazardous Waste Management. California Chamber of Commerce, 1998.

**SUGGESTED READING:**

Instructor generated handouts of current state and federal regulations relating to hazardous waste management.

**REQUIRED WRITING:**

Report of at least two-typewritten pages outlining an environmental materials audit.

**OUTSIDE ASSIGNMENTS:**

**Students are expected to spend a minimum of three hours per unit per week in class and on outside assignments, prorated for short-term classes.**

Read required text, study lecture notes, complete written report.

**INSTRUCTIONAL METHODOLOGY:**

**Check all that apply:**

- lecture
- laboratory
- lecture-laboratory combination
- directed study

**This course may be offered as a distance learning course and meets Title 5 regulations 55370, 55372, 55374, 55376, 55378, and 55380.**

Yes  No

**If yes, check all that apply.**

- Television Course (Video one-way, e.g. ITV, video cassette, etc.)
- Online Course (Text one-way, e.g. newspaper, correspondence, electronic file, etc.)
- Two-Way Video Conferencing (Two-way interactive video and audio)
- One-Way Video Conferencing (One-way interactive video and two-way interactive audio)
- Computer Assisted Instruction (A specialized form of mediated instruction relying primarily on student access to information and prepared lessons or teaching materials through a computer terminal, but not under immediate supervision of a qualified instructor.)

**GRADING POLICY AND STANDARDS** (include methods of determining whether the stated objectives have been met by students):

Laboratory exercises	=	20%	
Written assignments	=	10%	A = 100 - 90%
Quizzes	=	20%	B = 89 - 80%
Mid-term examination	=	20%	C = 79 - 70%
Final examination	=	<u>30%</u>	D = 69 - 60%
Total		100%	F = below 60%

**IS COURSE REPEATABLE FOR REASON(S) OTHER THAN DEFICIENT GRADE?**

Yes \_\_\_ No X Number of times course may be taken for credit: 1

If yes, identify specific provision of Title 5 Division 2 section(s), 55761-55763 and 58161 which qualifies course as repeatable:

**CONTACT PERSON:** Director, Vocational Programs, Ext. 2286

SIGNATURES ON FILE