

Course Outline

COURSE: WTRM 120 **DIVISION:** 50 **ALSO LISTED AS:**

TERM EFFECTIVE: Spring 2018 **Inactive Course**

SHORT TITLE: POLLUTION PREVENTION/STORM WTR

LONG TITLE: Pollution Prevention and Storm Water Management

Units	Number of Weeks		Contact Hours/Week		Total Contact Hours
3	18	Lecture:	3	Lecture:	54
		Lab:	0	Lab:	0
		Other:	0	Other:	0
		Total:	3	Total:	54

COURSE DESCRIPTION:

Pollution Prevention and Storm Water Management reviews methods and regulations to prevent pollutants from reaching the waters of our rivers, streams and aquifers. It reviews methods of reducing pollutants in industrial wastewater, water reuse and water recycling. Additionally, it reviews the methods and regulations for storing hazardous wastes and materials. Lastly, it reviews the general stormwater permits for municipalities, industry and construction. At the end of this course, the student will have a fundamental knowledge of how to reduce pollution in our wastewater through effective water and process management, as well as appropriate hazardous materials and waste storage. This course also covers the implementation of methods required by the State's general permits to prevent pollution from entering stormwater runoff. This course is now listed as WTRM 220. **ADVISORY:** WTRM 101: Introduction to Water/Wastewater Technology; WTRM 107: Beginning Wastewater Treatment Plant Operation.

PREREQUISITES:

COREQUISITES:

CREDIT STATUS: D - Credit - Degree Applicable

GRADING MODES

L - Standard Letter Grade

REPEATABILITY: N - Course may not be repeated

SCHEDULE TYPES:

02 - Lecture and/or discussion

STUDENT LEARNING OUTCOMES:

1. Outline the key elements of Pollution Prevention, Ingredient, and Chemical Waste Storage, Process Design, Equipment Design, and Facility Design.

Measure: Quizzes, Exams, Homework Assignments

PLO:

ILO: 7,3,2,6

2. Explain the requirements of Title 22 , Article 10 - 14.

Measure: Quizzes, Exams, Homework Assignments

PLO:

ILO: 7,3,2,6

3. Outline the requirements of 40 CFR Part 112 Spill Prevention, Containment and Counter Measure.

Measure: Quizzes, Exams, Homework Assignments

PLO:

ILO: 7,3,2,6

4. Describe the major elements of erosion and sediment control.

Measure: Quizzes, Exams, Homework Assignments

PLO:

ILO: 7,3,2,6

5. Explain the required elements of a General Municipal Storm Water Permit.

Measure: Quizzes, Exams, Homework Assignments

PLO:

ILO: 7,3,2,6

6. Outline the required elements for a General Industrial Storm Water Permit.

Measure: Quizzes, Exams, Homework Assignments

PLO:

ILO: 7,3,2,6

7. Describe the key requirements associated with a General Construction Storm Water Permit.

Measure: Quizzes, Exams, Homework Assignments

PLO:

ILO: 7,3,2,6

CONTENT, STUDENT PERFORMANCE OBJECTIVES, OUT-OF-CLASS ASSIGNMENTS

Inactive Course: 03/13/2017

9 Hours

Content: Pollution Prevention, Process Management, Process Control, Equipment Design, Facility Design, Material Storage, Water Reuse, Water Recycling, Cleaning Processes, Rinsing processes.

Student Performance Objectives (SPO): Describe the key elements of Pollution Prevention, Process Management, Process Control, Equipment Design, Facility Design, Material Storage, Water Reuse, Water Recycling, Cleaning Processes, and Rinsing processes as they relate to pollution control and storm water management.

Out-of-Class Assignments: Reading, problems

9 Hours

1/25/2018

Content: Title 22, Hazardous Waste Storage.

Student Performance Objectives (SPO): Explain the requirements of Title 22, Hazardous Waste Storage.

Out-of-Class Assignments: Reading, group homework

9 Hours

Content: SPCC and Petroleum Storage.

Student Performance Objectives (SPO): Explain the requirements of SPCC and Petroleum Storage.

Out-of-Class Assignments: Reading, group homework

6 Hours

Content: Erosion and Sediment Control

Student Performance Objectives (SPO): Outline the primary elements of Erosion and Sediment Control

Out-of-Class Assignments: Reading, group homework

3 Hours

Content: General Municipal Stormwater Permit

Student Performance Objectives (SPO): Explain the requirements of a General Municipal Stormwater Permit

Out-of-Class Assignments: Reading, group homework

6 Hours

Content: General Industrial Stormwater Permit

Student Performance Objectives (SPO): Explain the requirements of a General Industrial Stormwater Permit

Out-of-Class Assignments: Reading, group homework

10 Hours

Content: General Construction Stormwater Permit

Student Performance Objectives (SPO): Explain the requirements of a General Construction Stormwater Permit

Out-of-Class Assignments: Reading, group homework

2 Hours

METHODS OF INSTRUCTION:

Lecture, Homework, Quizzes, Group Project

METHODS OF EVALUATION:

CATEGORY 1 - The types of writing assignments required:

Percent range of total grade: 10 % to 20 %

Written Homework

Reading Reports

CATEGORY 2 - The problem-solving assignments required:

Percent range of total grade: 30 % to 40 %

Homework Problems

Quizzes

Exams

CATEGORY 3 - The types of skill demonstrations required:

Percent range of total grade: 20 % to 30 %

Class Performance/s
Field Work
Performance Exams

CATEGORY 4 - The types of objective examinations used in the course:

Percent range of total grade: 20 % to 40 %

Multiple Choice

Completion

Other: Storm Water Pollution Prevention Plan

CATEGORY 5 - Any other methods of evaluation: group projects

Percent range of total grade: 10 % to 15 %

REPRESENTATIVE TEXTBOOKS:

Required:

Government Codes posted online:

CCR Title 22 , chapt 10 -14, 40CFR Part 112, California General Municipal Storm Water Permit, California General Industrial Stormwater Permit, California General Construction Storm Water Permit, Certified Professional in Erosion and Sediment Control Exam Review and Study Guide, State of California, US EPA, State of California X3, Envirocert.

Most current government codes online, as listed.

or other appropriate college level text.

Reading level of text, Grade: 11 Verified by: Dana Young

ARTICULATION and CERTIFICATE INFORMATION

Associate Degree:

CSU GE:

IGETC:

CSU TRANSFER:

Transferable CSU, effective 201270

UC TRANSFER:

Not Transferable

SUPPLEMENTAL DATA:

Basic Skills: N

Classification: Y

Noncredit Category: Y

Cooperative Education:

Program Status: 1 Program Applicable

Special Class Status: N

CAN:

CAN Sequence:

CSU Crosswalk Course Department: WTRM

CSU Crosswalk Course Number: 120

Prior to College Level: Y

Non Credit Enhanced Funding: N
Funding Agency Code: Y
In-Service: N
Occupational Course: C
Maximum Hours: 3
Minimum Hours: 3
Course Control Number: CCC000530897
Sports/Physical Education Course: N
Taxonomy of Program: 095800