

**Course Outline**

**COURSE:** WTRM 218                      **DIVISION:** 50                      **ALSO LISTED AS:** WTRM 118

**TERM EFFECTIVE:** Fall 2019                      **CURRICULUM APPROVAL DATE:** 12/18/2018

**SHORT TITLE:** INTRO OCC HEALTH AND SAFETY

**LONG TITLE:** Introduction to Occupational Health and Safety

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:**

This course covers the fundamentals of the health and safety associated with water treatment, distribution and waste water treatment operations. Subjects covered include introduction to safety, confined space, lockout-tagout, respiratory protection, heat stress, fall protection and traffic control. Each section will satisfy existing Cal/OSHA and other water industry related training requirements. This course was previously listed as WTRM 118.

**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

05 - Hybrid

72 - Dist. Ed Internet Delayed

## **STUDENT LEARNING OUTCOMES:**

1. Describe the EH&S and Cal/OSHA water industry safety related training requirements; specifically Safety Management Systems and IIPP, hazardous materials and Right to Know, confined space and lockout-tagout (LOTO) safety, and personal protective equipment (PPE) and respiratory protection.

Measure of assessment: Quizzes and exercises

Year assessed, or planned year of assessment: 2017

Semester: Fall

2. Explain the safety practices associated with water treatment, distribution and waste water treatment operations; specifically: powered industrial truck safety; vehicles and tool safety; traffic control, trenching safety and flagging; and facilities, maintenance and laboratory safety.

Measure of assessment: Quizzes and exercises

Year assessed, or planned year of assessment: 2017

Semester: Fall

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

Curriculum Approval Date: 12/18/2018

4 Hours

Content: Understanding Safety Management Systems/Illness and Injury Prevention Programs: responsibilities, communication, investigations, reporting and record keeping.

Student Performance Objectives: Explain how Safety Management Systems work and how to create an IIPP.

6 Hours

Content: Hazardous Materials and Right to Know

Student Performance Objectives: Outline the requirements for certification in Title 22 and how to use MSDS, signs, labels and other forms of hazard communications.

6 Hours

Content: Confined Spaces and Lockout-Tagout (LOTO)

Student Performance Objectives: Explain the dangers and how to work safely in a confined space. Explain how to use LOTO to block exposure to hazardous energy.

6 Hours

Content: Personal Protective Equipment (PPE) and Respiratory Protection

Student Performance Objectives: Describe how to select, use and maintain PPE.

6 Hours

Content: Powered Industrial Trucks

Student Performance Objectives: Explain how to use PITs safely. Note: The student needs to perform an aptitude test on a PIT for certification.

6 Hours

Content: Vehicles and Tools

Student Performance Objectives: Outline how to safely use key tools and do vehicle inspections.

6 Hours

Content: Traffic Control and Flagging

Student Performance Objectives: Explain how to apply the DOT's regulations of traffic control in work areas involving traffic.

6 Hours

Content: Trenching Safety

Student Performance Objectives: Explain the hazards of trenches and how to safely work in trenching areas.

6 Hours

Content: Facilities, Maintenance and Laboratory Safety

Student Performance Objectives: Describe how to perform an EH&S audit on facilities. Describe situations of hazards and safety practices in labs and maintenance shops.

2 Hours

**METHODS OF INSTRUCTION:**

Lecture, Power-Point Presentations, Discussion and Videos.

**METHODS OF EVALUATION:**

Writing assignments

Percent of total grade: 30.00 %

Written Homework

Problem-solving assignments

Percent of total grade: 20.00 %

Homework Problems Quizzes Exams

Skill demonstrations

Percent of total grade: 10.00 %

Demonstration Exams

Objective examinations

Percent of total grade: 40.00 %

Multiple Choice True/False

**OUT OF CLASS ASSIGNMENTS:**

Required Outside Hours: 8

Assignment Description: Out-of-Class Assignments: Write an IIPP for a fictitious organization. Complete take home quiz related to topics presented in class.

Required Outside Hours: 12

Assignment Description: Out-of-Class Assignments: Obtain a MSDS from the internet. Determine how the material will be stored, what materials are incompatible, emergency procedures and proper PPE needed for handling this material. Complete take home quiz related to topics presented in class.

Required Outside Hours: 12

Assignment Description: Out-of-Class Assignments: Find an incident involving Confined Spaces or LOTO on the internet. Write a report about it including its causes and what should have been done to prevent the accident. Complete take home quiz related to topics presented in class.

Required Outside Hours: 12

Assignment Description: Out-of-Class Assignments: Select the proper PPE for a specified task. Complete take home quiz related to topics presented in class.

Required Outside Hours: 12

Assignment Description: Out-of-Class Assignments: Find an accident involving PIT on the internet. Write a report about it including its causes and what should have been done to prevent the accident. Complete take home quiz related to topics presented in class.

Required Outside Hours: 12

Assignment Description: Out-of-Class Assignments: Perform a pre-shift inspection on a vehicle. Complete take home quiz related to topics presented in class.

Required Outside Hours: 12

Assignment Description: Out-of-Class Assignments: Perform a traffic control plan and draw a traffic control zone for this plan. Complete take home quiz related to topics presented in class.

Required Outside Hours: 12

Assignment Description: Out-of-Class Assignments: Find a trenching accident on the internet. Write a report about it including its causes and what should have been done to prevent the accident. Complete take home quiz related to topics presented in class.

Required Outside Hours: 12

Assignment Description: Out-of-Class Assignments: Perform a safety audit for a workplace or write a report on an accident involving a Maintenance or Laboratory setting. Complete take home quiz related to topics presented in class.

### **REPRESENTATIVE TEXTBOOKS:**

Required Representative Textbooks

M3 Safety Management for Utilities, Seventh Edition or other appropriate college level text. . Denver, CO: American Water Works Association,2014.

This is a standard text used in the water industry.

ISBN: 9781583219997

Reading Level of Text, Grade: 11th Verified by: Dana Young

Required Other Texts and Materials

EH&S Lecture Handouts and Cal/OSHA Regulations

### **ARTICULATION and CERTIFICATE INFORMATION**

Associate Degree:

CSU GE:

IGETC:

CSU TRANSFER:

Not Transferable

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:

CSU Crosswalk Course Number:

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: CCC000530895

Sports/Physical Education Course: N

Taxonomy of Program: 095800