

Oakland University
School of Health Sciences
Environmental Health & Safety Program

Course Syllabus:

EHS 2250 – Environmental Health & Safety Training Methods, WI18

Instructor and Class Meeting Information:

Instructor: Dr. Charles W. McGlothlin, Jr.
Office: 3065 HHB
Office Hours: Online, Mondays 9pm
Phone: 248.364.8651
Fax: 248.364.3120
E-mail: mcglothl@oakland.edu
Class Sessions: Online, Mondays 8pm
Class Location: Online
Lab Location: N/A

Catalog Description:

In-depth study of training methods required to conceptualize, prepare, deliver, and evaluate safety training directed at the adult learner. Course includes hands-on experiences in conducting training needs assessment, establishing learning objectives, developing curricula pertinent to needs of participants using different types of media, and developing training evaluation tools.

Prerequisite: None.

Required Text & Class Materials:

Beebe, S. A., Roach, D. & Mottet, T.P., *Training and Development: Communicating for Success, 2nd Edition*. PEARSON, 2013. ISBN 13: 9780205006120

All computer-based training audio/visual support required online or via Moodle.

Other Class Resources:

Accident Prevention Manual for Business & Industry, Administration & Programs, (13th ed), National Safety Council (NSC), 2009.

Cantonwine, *Safety Training that Delivers: How to Design and Present Better Technical Training*, American Society of Safety Engineers (ASSE), 1999.

American National Standard: Criteria for Accepted Practices in Safety, Health, and Environmental Training, American Society of Safety Engineers, 2001.

Other texts and web-based references appropriate for site-specific training topics

Course Objectives:

Upon completion of this course, the student should be able to:

1. Describe what constitutes an effective and ineffective training class.
2. Explain and apply the adult learning process in safety training.
3. Apply Information Literacy skills to recognize, locate, evaluate, and use information necessary to develop an effective safety training program.
4. Conduct a training needs assessment.
5. Establish goals and learning/performance objectives for a training session.
6. Develop curricula pertinent to the needs of the training participants.
7. Explain the advantages and disadvantages of using different types of training media.
8. Develop evaluations to use in training sessions.
9. Write appropriate questions for testing.
10. Identify the most effective way to set up a training environment.
11. Comfortably answer questions.
12. Address various interventions that might occur in a training session.
13. Design a comprehensive Training Program Plan that meets standards and guidelines established by the American National Standards Institute, American Society of Safety Engineers, and National Safety Council.
14. Demonstrate proficiency in development and use of PowerPoint software.
15. Develop, deliver, and evaluate a safety training session that satisfies American National Standard Z490.1-2001.
16. Apply the characteristics of an effective presenter in conducting a safety training program.

Class Schedule:

Date: Class Description and Required Reading/Assignment:

Week 1:

- Introduction, Course Learning Objectives, Review Course Syllabus
- Assignment; Read Beebe Chapters 1 & 2

Week 2:

- Training, Education, Development & Consulting; An overview of the training & development process, Chapter 1
- How Adults Learn: Laws of Learning & Learning Styles, Chapter 2
- Information Literacy and Subject Matter Research – Adult Learner and Student Research of Training Topic through the OU Kresge Library online.

Week 3:

- Student PowerPoint – Adult Learner and Student Selected Training Topic
- Review Assignment 1 Requirements
- Assignment; Read Beebe Chapter 3 & 4

Week 4

- Task Analysis and Assessing Learner Needs, Chapter 3
- Developing Training Goals and Objectives, Chapter 4

Week 5:

- Assignment 1 Due:* Needs-Assessment Proposal, Training Goals and Objectives
- Discuss Assignment 1 online
- Assignment; Read Beebe Chapters 5 & 6
- Developing Training Content and Intro to Training Methods, Chapter 5 & 6

Week 6:

- Assignment 2 Due:* Needs-Assessment Results Report
- Discuss Assignment 2 online
- Quiz 1, Beebe Chapters 1-6 and other course content to date

Week 7:

- Mid-Term Exam Review
- Mid-Term Exam
- Assignment; Read Beebe Chapter 7 & 8

Week 8:

- Winter Recess

Week 9:

- Using Technology and Presentational Aids, Chapter 7
- Developing & Preparing Training Plans, Chapter 8
- Review Assignment 3, Development of a Training Plan
- Assignment; Read Beebe Chapters 9, 10, & 11
- Read ANSI Z490.1

Week 10:

- Assignment 3 Due:* Development of a Training Plan
- Delivering the Training Session, Chapter 9
- Managing Conflict, Chapter 10
- Assessing Learning Outcomes, Chapter 11
- Chapter 9, 10, & 11 assignments due
- Review: Oral Presentation Preparation, Oral Evaluation Process, & Assignment 4

Week 11:

- Student Oral Presentations & Evaluations
- Quiz 2, Beebe Chapters 7-11 and other course content to date
- Final PowerPoint presentations due

Week 12:

- Student Oral Presentations & Evaluations

Week 13:

- Assignment 4 Due:* Development of a Detailed Training Program Proposal
- Student Oral Presentations & Evaluations

Week 14:

- Student Oral Presentations & Evaluations

Week 15:

- Student Oral Presentations & Evaluations
- Online Course Evaluation

Week 16:

- Final Exam

* LATE ASSIGNMENTS WILL NOT BE ACCEPTED.

Grading Criteria:

<i>Grading Components:</i>	<i>% of Grade:</i>
Library Research	3
Adult Learning & Topic Research	3
Assignment 1	5
Assignment 2	5
Assignment 3	5
Quizzes (2)	10
Mid Term Exam	15
Chapter Assignments	4
Final Student Presentation	20
Assignment 4	15
Final Exam	15

Note: Late assignments will not be accepted.

Please note the Mid Term and Final Exams in this class will be proctored through the ProctorU service. Please visit <http://proctoru.com/portal/oakland> and create a ProctorU account. When you are ready to take any proctored session exam, you will need to select your institution (Oakland University), the term, exam you are taking, and then the time you want to take the exam. For additional IT support please contact the Oakland University IT support for help.

Very Important: Schedule your proctoring sessions for intended examinations at least 72 hours in advance to avoid premium charges. ProctorU is available 24/7, however you will need to schedule your proctoring session at least 72 hours in advance to avoid any on demand scheduling fees. Creating a ProctorU account is very simple. All you will need to do is visit <http://proctoru.com/portal/oakland>.

ProctorU also provides free technical support to ensure you have the best testing situation possible. That is available at www.proctoru.com/testitout. On this page you will also be able to test your equipment, learn about what to expect during your proctoring session, and ask any questions you may have about the proctoring process with a ProctorU representative.

In order to use ProctorU you will need to have a high-speed internet connection, a webcam (internal or external), a windows or apple Operating System, and a government issued photo id. ProctorU recommends that you visit proctoru.com/testitout prior to your proctoring session to test your equipment. For additional technical services needed before your exam, you can click on the button that says “connect to a live person.”

Oakland University Portal Page

url: <http://proctoru.com/portal/oakland>

Test Taker Walk Through Video

url: <https://vimeo.com/107066503>

Grading Scale:

Assigned Grade:	Percent:	Letter Grade
4.0	97-100	
3.9	95-96	
3.8	93-94	
3.7	91-92	
3.6	90	A
3.5	89	
3.4	87-88	
3.3	85-86	
3.2	83-84	
3.1	81-82	
3.0	80	B
2.9	79	
2.8	78	
2.7	77	
2.6	76	
2.5	75	
2.4	74	
2.3	73	
2.2	72	
2.1	71	
2.0	70	C
1.9	69	
1.8	68	
1.7	67	
1.6	66	
1.5	65	
1.4	64	
1.3	63	
1.2	62	
1.1	61	
1.0	60	D
0.0	59 or below	F

Training Topic Assignment and Application

Each student will assume they are working as an occupational safety & health consultant for CMX, Inc., a small manufacturing company which employees 250 people in Rochester Hills Michigan. You will be assessing training needs, developing a training program, developing a comprehensive training program proposal, and delivering training for CMX employees in your assigned safety topic area. Your safety topic will be posted in Moodle and should be researched and supported by at least five credible sources related to your assigned subject to ensure successful completion of these assignments.

Assignment 1, Needs-Assessment, Training Goal/Objectives, & Task Analysis

You are an occupational safety & health consultant and expert in your assigned safety topic area. CMX Inc. recently had an employee killed as a result of not following OSHA regulations and established company safe work procedures relative to your safety content area. As a result of this fatal accident, CMX received several OSHA citations and fines for violations in your area of expertise. In addition, the company experience significant costs relative to medical treatment prior to the employee's death and equipment and physical plant damage associated with the accident. In an effort to prevent this type of accident from ever happening again, CMX has hired you to develop a needs assessment proposal and carryout other activities as listed below:

1. Develop a **detailed** needs assessment as outlined on page 294 of the Beebe text for your assigned training topic. Per the outline, 8 pages are required to address this proposal effectively.
2. Develop a survey questionnaire designed to assess your **specific** training needs.
3. Create an appropriate Training Goal and three **properly stated** Learning Objectives to support that goal.
4. Prepare a Task Analysis **to teach a skill** related to your assigned topic. This will involve a step-by-step outline of the skills, knowledge and behaviors necessary to perform a skill related to your training topic area. See the text for direction and example.
5. Upload your completed **four-part** Assignment 1 as a Word document into your Moodle course.

Assignment 2, Needs-Assessment Results Report

Complete a written Needs-Assessment Report for CMX, Inc. as outlined on page 295 of the Beebe text. Your report must be word processed in a professional manner and include each of the following elements and page requirements:

1. A detailed briefing of the problem (2-4 pages)
2. Needs Assessment Procedures (2 pages)
 - Sampling
 - Methodology
 - Data Analysis
3. Results (2-4 pages)
4. Conclusions (2-4 pages)
 - Problem Confirmed/Disconfirmed
 - Possible Causes
 - Possible Solutions

Assignment 3, Development of a Training Plan

Develop a written Training Plan to support training in your assigned topic area as it relates to CMX. Use the multicolumn format explained in Chapter 9 of your text. Your training plan must include at least four (4) 50 minute training modules with at least two behavioral/learning objectives per module. The information in the four columns (time, content, methods, and materials) must support the objectives. Develop your multicolumn training plan in a landscape page set-up to allow room for required information. Your plan must be word processed in a professional manner and uploaded in Moodle as a Word file.

Oral Presentation Assignment

Deliver a training presentation to support your identified training topic as it relates to the situation at CMX. The training presentation must be 15 minutes in length and adhere to the following guidelines:

- An effective introduction that introduces the topic and addresses the needs of the adult learner – why they are attending this training.
- A properly stated training goal or purpose that addresses both safety and operational performance improvement that are anticipated as a result of the training.
- One (1) properly stated learning objectives that clearly tell the participants what is expected of them upon completion of the training.
- Application of effective training methods and materials to support the learning objectives.
- Use of audio/visual support necessary to address the audio, visual, and kinesthetic learner.
- An effective PowerPoint presentation that meets text recommendations to support your presentation.
- Effective oral presentation skills.
- Explanation of training handouts/participants guide necessary to support your training.
- A comprehensive summary of the training purpose and learning objective.
- Explanation of a written test (class time will not be used to actually complete the test) and/or description of other assessment tools or demonstration processes used to evaluate trainee learning as related to each learning objectives.
- Explanation of a written assessment instrument to evaluate effectiveness of you as a trainer.
- Explanation of the evaluation tools or processes you will use to determine if the training program was effective in accomplishment of your training goal to improve safety and operating performance.

PowerPoint slides are required to support your 15 minute presentation. As a minimum, the following areas should be covered with slides:

- Title page
- Introduction & need for training
- Purpose & Learning Objective
- Body: Teaching slides to cover the purpose and learning objective
- Summary slides to cover review/summary of the training purpose & learning objective

- Assessment activity slide (training and instructor effectiveness)
- Evaluation activities/processes to evaluate program effectiveness

Assignment 4, Training Program Proposal

Develop a detailed Training Program Proposal for CMX, Inc. as outlined on page 298 of the Beebe text. The training proposal is to deliver training in your assigned safety topic area and must be word processed with attention to spelling and grammar and packaged in a business-like manner, see Beebe text Chapter 12.

Please note that this assignment represents a significant part of your final grade and it is expected that a detailed training proposal be developed meeting, as a minimum, the page requirements indicated on page 298 of the text.