Course Description

A comprehensive study of the essential components needed in developing an effective safety management system. Examines the cultural aspects of integrating total safety management into all levels of an operation.

Course Textbook

Manuele, F. A. (2014). *Advanced safety management: Focusing on Z10 and serious injury prevention* (2nd ed.). Hoboken, NJ: Wiley.

Course Learning Outcomes

Upon completion of this course, students should be able to:

1. Develop effective safety management policy statements, goals, and objectives.
2. Evaluate the impact that the role of accountability has on performance management in in safety management programs.
3. Analyze the importance of clarity in the assignment of safety related responsibilities in safety management programs.
4. Examine the components of an effective hazard prevention and control system.
5. Apply risk management principles to reduce the impact of workplace hazards.
6. Relate continuous improvement principles to safety management concepts.
7. Examine management tools necessary to implement effective safety management systems.

Credits

Upon completion of this course, the students will earn three (3) hours of college credit.

Course Structure

1. **Study Guide:** Each unit contains a Study Guide that provides students with the learning outcomes, unit lesson, required reading assignments, and supplemental resources.
2. **Learning Outcomes:** Each unit contains Learning Outcomes that specify the measurable skills and knowledge students should gain upon completion of the unit.
3. **Unit Lesson:** Each unit contains a Unit Lesson, which discusses lesson material.
4. **Reading Assignments:** Each unit contains Reading Assignments from one or more chapters from the textbook and/or outside resources.
5. **Suggested Reading:** Suggested Readings are listed in each unit's study guide. Students are encouraged to read the resources listed if the opportunity arises, but they will not be tested on their knowledge of the Suggested Readings.
6. **Learning Activities (Non-Graded):** These non-graded Learning Activities are provided to aid students in their course of study.
7. **Unit Assessments:** This course contains six Unit Assessments, one to be completed at the end of Units I-III and V-VII. Assessments are composed of written response questions.

8. **Unit Assignments:** Students are required to submit for grading Unit Assignments in Units IV, V, and VIII. Specific information and instructions regarding these assignments are provided below. Grading rubrics are included with each assignment. Specific information about accessing these rubrics is provided below.
9. **Ask the Professor:** This communication forum provides you with an opportunity to ask your professor general or course content related questions.
10. **Student Break Room:** This communication forum allows for casual conversation with your classmates.

CSU Online Library

The CSU Online Library is available to support your courses and programs. The online library includes databases, journals, e-books, and research guides. These resources are always accessible and can be reached through the library webpage. To access the library, log into the myCSU Student Portal, and click on "CSU Online Library." You can also access the CSU Online Library from the "My Library" button on the course menu for each course in Blackboard.

The CSU Online Library offers several reference services. E-mail (library@columbiasouthern.edu) and telephone (1.877.268.8046) assistance is available Monday – Thursday from 8 am to 5 pm and Friday from 8 am to 3 pm. The library's chat reference service, *Ask a Librarian*, is available 24/7; look for the chat box on the online library page.

Librarians can help you develop your research plan or assist you in finding relevant, appropriate, and timely information. Reference requests can include customized keyword search strategies, links to articles, database help, and other services

Unit Assignments

Unit IV Project

Hazard Analysis and Risk Assessment Project

Be sure to read all of the instructions. There are two documents to be prepared and submitted.

1. Following steps 1-11 of the Hazard Analysis and Risk Assessment Guide in the course textbook (pp. 171-174), develop a risk assessment for a serious workplace hazard with which you are familiar, or use Addendum D to Chapter 11 (pp. 202-206) to help you select a hazard. Evaluate the hazard and its associated risks, and then complete the Hazard Analysis and Risk Analysis Project form (click here to access this form). To complete the Initial Risk Assessment and Post Control Risk Assessment sections, use the following codes based on the Risk Assessment Matrix in Table 11.10 (p.180) of the textbook:

   SEVERITY:
          1 – Catastrophic
          2 – Critical
          3 – Marginal
          4 – Negligible

   PROBABILITY (Likelihood of Occurrence):
          A – Frequent
          B – Probable
          C – Occasional
          D – Remote
          E – Improbable

   RISK CODE:
          H – High
          S – Serious
          M – Medium
          L – Low

   All sections of the form must be completed. Note that the "Post Control Risk Assessment Measures" section reflects the risk assessment AFTER applying the additional control measures.

2. In a separate document of at least 500 words, explain the reasoning behind how you filled out each section of the form. Use references as needed to support the discussion.

Upload both the completed form and the discussion document. Be sure that the discussion document is in APA format with a title page and a reference page.

Information about accessing the Blackboard Grading Rubric for this assignment is provided below.

Unit V Article Review

Search the CSU Online Library and locate an article related to hazard identification and control. The Business Source Complete, Academic Search Complete, and Academic OneFile databases are good places to start your search. Try using a variety of search terms (e.g., hazard identification, hazard control, hazard prevention, industrial hazards, occupational hazards, controlling hazards). Search terms can also be derived from the information in Chapter 14 of the course textbook.

The selected article must be from a professional or academic journal, at least two pages in length, and published within the last five years. Be sure that the article is specific to occupational safety and health as some search terms may result in articles related to the finance and insurance industries.

Write a review that includes the following components:

- a brief introduction to the article,
- a summary and analysis of the key points in the article,
- a discussion on how the article supports or contradicts the concepts as presented in the textbook, and
- a summary of the article's conclusions and your own opinions.

The assignment must be in APA format and at least two pages in length (not including title and reference pages).

Information about accessing the Blackboard Grading Rubric for this assignment is provided below.

Unit VIII Course Project

1. Conduct an audit of the following safety management system elements at your organization, or an organization with which you are familiar and have access to the required information:

SAFETY MANAGEMENT SYSTEM ELEMENTS	ANSI/AIHA Z10 SECTIONS	COURSE TEXTBOOK CHAPTERS
1. Occupational Health and Safety Management System	3.1.1	8
2. Occupational Health and Safety Policy	3.1.2	8
3. Responsibility and Authority	3.1.3	8
4. Employee Participation	3.2	8
5. Review Process, Assessment, and Prioritization	4.1, 4.2	9
6. Risk Assessment	5.1.1	11
7. Hierarchy of Controls	5.1.2	14
8. Design Review	5.1.3	15
9. Management of Change	5.1.3	19
10. Procurement	5.1.4	20
11. Monitoring and Measurement	6.1	21
12. Incident Investigation	6.2	22
13. Audits	6.3	23
14. Corrective and Preventive Actions	6.4	23
15. Feedback to the Planning Process	6.5	23
16. Management Review	7.1, 7.2	24

Below you will find some suggested sources for the objective evidence to support your evaluation:

- *Documents:* Organizational safety manuals and instructions, safe operating procedures, and job hazard analyses
- *Records:* E-mails or letters from management to employees, safety meeting minutes, mishap logs, audit reports, OSHA citations, inspection reports, risk assessments, and training records.
- *Interviews:* Management personnel, supervisors, and employees
- *Observation:* Walk through some workplaces to observe conditions for yourself.

2. For each management system element, discuss the objective evidence you found (or were unable to find). Evaluate the effectiveness of the organization's implementation of each element against available reference sources and best practice information. Use the following five-tier evaluation scheme to rate each element:

   - *World Class:* OHS performance
   - *Strong:* Conforming/complete, may have minor gaps with action plans
   - *Moderate:* Scattered non-conformances need to be addressed, positive trends/major elements in place
   - *Significant Non-Conformances Exist:* Still needs focus
   - *Major Effort Required:* Major or systemic non-conformances exist

   Appropriate references include the course textbook, textbooks from other college-level courses, ANSI/AIHA Z10-2012, other published consensus standards (ANSI, ASSE, AIHA, ISO, NFPA, etc.), OSHA standards and voluntary guidelines, and articles published in professional journals. Blogs, Wikipedia, About.com, Ask.com and other unmonitored Internet resources are not considered scholarly references and should not be used. Please contact your professor if you have any questions about the appropriateness of a reference source.

3. If an element is found to be less than World Class, provide recommendations for improvement. Be sure to use appropriate scholarly reference sources to support your recommendations.

4. Conclude the audit report with a summary of the overall status of the organization's safety management system.

The Course Project must be a minimum of seven pages and a maximum of 10 pages in length, not including the title, abstract, and reference pages. A minimum of five professional references sources must be used.

Information about accessing the Blackboard Grading Rubric for this assignment is provided below.

APA Guidelines

CSU requires that students use APA style for papers and projects. Therefore, the APA rules for formatting, quoting, paraphrasing, citing, and listing of sources are to be followed. Students can find CSU's Citation Guide in the myCSU Student Portal by clicking on the "Citation Resources" link in the "Learning Resources" area of the myCSU Student Portal. This document includes examples and sample papers and provides information on how to contact the CSU Success Center.

Grading Rubrics

This course utilizes analytic grading rubrics as tools for your professor in assigning grades for all learning activities. Each rubric serves as a guide that communicates the expectations of the learning activity and describes the criteria for each level of achievement. In addition, a rubric is a reference tool that lists evaluation criteria and can help you organize your efforts to meet the requirements of that learning activity. It is imperative for you to familiarize yourself with these rubrics because these are the primary tools your professor uses for assessing learning activities.

Rubric categories include: (1) Assessment (Written Response) and (2) Assignment. However, it is possible that not all of the listed rubric types will be used in a single course (e.g., some courses may not have Assessments).

The Assessment (Written Response) rubric can be found embedded in a link within the directions for each Unit Assessment. However, these rubrics will only be used when written-response questions appear within the Assessment.

Each Assignment type (e.g., article critique, case study, research paper) will have its own rubric. The Assignment rubrics are built into Blackboard, allowing students to review them prior to beginning the Assignment and again once the Assignment has been scored. This rubric can be accessed via the Assignment link located within the unit where it is to be submitted. Students may also access the rubric through the course menu by selecting "Tools" and then "My Grades."

Again, it is vitally important for you to become familiar with these rubrics because their application to your Assessments and Assignments is the method by which your instructor assigns all grades.

Communication Forums

These are non-graded discussion forums that allow you to communicate with your professor and other students. Participation in these discussion forums is encouraged, but not required. You can access these forums with the buttons in the Course Menu. Instructions for subscribing/unsubscribing to these forums are provided below.

Once you have completed Unit VIII, you MUST unsubscribe from the forum; otherwise, you will continue to receive e-mail updates from the forum. You will not be able to unsubscribe after your course end date.

Click here for instructions on how to subscribe/unsubscribe and post to the Communication Forums.

Ask the Professor

This communication forum provides you with an opportunity to ask your professor general or course content questions. Questions may focus on Blackboard locations of online course components, textbook or course content elaboration, additional guidance on assessment requirements, or general advice from other students.

Questions that are specific in nature, such as inquiries regarding assessment/assignment grades or personal accommodation requests, are NOT to be posted on this forum. If you have questions, comments, or concerns of a non-public nature, please feel free to e-mail your professor. Responses to your post will be addressed or e-mailed by the professor within 48 hours.

Before posting, please ensure that you have read all relevant course documentation, including the syllabus, assessment/assignment instructions, faculty feedback, and other important information.

Student Break Room

This communication forum allows for casual conversation with your classmates. Communication on this forum should always maintain a standard of appropriateness and respect for your fellow classmates. This forum should NOT be used to share assessment answers.

Grading

Unit Assessments (6 @ 10%)	=	60%
Unit IV Project	=	12%
Unit V Article Review	=	12%
Unit VIII Course Project	=	16%
Total	**=**	**100%**

Course Schedule/Checklist (PLEASE PRINT)

The following pages contain a printable Course Schedule to assist you through this course. By following this schedule, you will be assured that you will complete the course within the time allotted.

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Unit I	Introduction to Safety Management Systems
Review:	☐ Unit Study Guide ☐ **Learning Activities (Non-Graded):** See Study Guide
Read:	☐ **Textbook Introduction** ☐ **Chapter 1:** Overview of ANSI/AIHA Z10-2012 ☐ **Chapter 2:** Achieving Acceptable Risk Levels: The Operational Goal ☐ **Suggested Reading:** See Study Guide
Submit:	☐ **Assessment**
Notes/Goals:	

Unit II	Serious Injury Prevention and Human Error Reduction
Review:	☐ Unit Study Guide ☐ **Learning Activities (Non-Graded):** See Study Guide
Read:	☐ **Chapter 3:** Innovations in Serious Injury and Fatality Prevention ☐ **Chapter 4:** Human Error Avoidance and Reduction ☐ **Chapter 5:** Macro Thinking: The Socio-Technical Model ☐ **Suggested Reading:** See Study Guide
Submit:	☐ **Assessment**
Notes/Goals:	

Unit III	Planning, Leadership, and Employee Involvement
Review:	☐ Unit Study Guide ☐ **Learning Activities (Non-Graded):** See Study Guide
Read:	☐ **Chapter 6:** Safety Professionals as Culture Change Agents ☐ **Chapter 7:** The Plan-Do-Check-Act Concept (PDCA) ☐ **Chapter 8:** Management Leadership and Employee Participation: Section 3.0 of Z10 ☐ **Chapter 9:** Planning: Section 4.0 of Z10 ☐ **Chapter 10:** Implementation and Operation: Section 5.0 of Z10 ☐ **Suggested Reading:** See Study Guide
Submit:	☐ **Assessment**
Notes/Goals:	

BOS 3651, Total Environmental Health and Safety Management	Course Schedule

Unit IV	Hazard Analysis and Risk Assessment
Review:	☐ Unit Study Guide ☐ **Learning Activities (Non-Graded):** See Study Guide
Read:	☐ **Chapter 11:** A Primer on Hazard Analysis and Risk Assessment: Sections 4.2 and 5.1.1 of Z10 ☐ **Chapter 12:** Provisions for Risk Assessments in Standards and Guidelines: Sections 4.2 and 5.1.1 of Z10 ☐ **Suggested Reading:** See Study Guide
Submit:	☐ **Project**
Notes/Goals:	

Unit V	Controlling Hazards and Risks
Review:	☐ Unit Study Guide ☐ **Learning Activities (Non-Graded):** See Study Guide
Read:	☐ **Chapter 14:** Hierarchy of Controls: Section 5.1.2 of Z10 ☐ **Suggested Reading:** See Study Guide
Submit:	☐ **Assessment** ☐ **Article Review**
Notes/Goals:	

Unit VI	Reducing Risks Though the Design Process
Review:	☐ Unit Study Guide ☐ **Learning Activities (Non-Graded):** See Study Guide
Read:	☐ **Chapter 15:** Safety Design Reviews: Section 5.1.3 of Z10 ☐ **Chapter 16:** Prevention Through Design: Sections 5.1.1 to 5.1.4 of Z10 ☐ **Chapter 17:** A Primer on System Safety: Sections 4.0, 4.2, 5.1.1, 5.1.2, and Appendix F ☐ **Suggested Reading:** See Study Guide
Submit:	☐ **Assessment**
Notes/Goals:	

BOS 3651, Total Environmental Health and Safety Management	Course Schedule

Unit VII	Integrating Safety Management and Operational Management
Review:	☐ Unit Study Guide ☐ **Learning Activities (Non-Graded):** See Study Guide
Read:	☐ **Chapter 18:** Lean Concepts—Emphasizing the Design Process: Section 5.1.3 of Z10 ☐ **Chapter 19:** Management of Change: Section 5.1.3 of Z10 ☐ **Chapter 20:** The Procurement Process: Section 5.1.4 of Z10 ☐ **Suggested Reading:** See Study Guide
Submit:	☐ **Assessment**
Notes/Goals:	

Unit VIII	Auditing and Management Review
Review:	☐ Unit Study Guide ☐ **Learning Activities (Non-Graded):** See Study Guide
Read:	☐ **Chapter 21:** Evaluation and Corrective Action: Section 6.0 of Z10 ☐ **Chapter 22:** Incident Investigation: Section 6.2 of Z10 ☐ **Chapter 23:** Audit Requirements: Section 6.3 of Z10 ☐ **Chapter 24:** Management Review: Section 7.0 of Z10 ☐ **Suggested Reading:** See Study Guide
Submit:	☐ **Course Project**
Notes/Goals:	