TSM 272 – Introduction to Occupational Safety
Spring 2009

Class Meeting:  T 11:00 - 11:50  
Location:  1030 Morrill Hall
Arranged via Web

Instructor:  Dr. Steven A. Freeman  
email:  sfreeman@iastate.edu
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Office Hours:  3024 Morrill Hall – TR 9:00-10:00  
Phone:  294-0382

REQUIRED MATERIALS

Charles D. Reese

CATALOG DESCRIPTION

(2-0) Cr. 2. Introduction to occupational safety and health administration and management.
Includes accident investigation and response.

COURSE DESCRIPTION/PURPOSE/OBJECTIVES

This is an introductory course focussing on the management and administration of occupational
safety and health programs. The enduring understanding that forms the basis for every discussion
and activity in this course is **workplace safety is a management function that requires commitment and involvement from all employees to be successful.** The overarching principles that connect all course content and activities are:

1. All occupational injuries and incidents are preventable.
2. All levels of management are responsible for safety and health.
3. All employees have the responsibility to themselves, their coworkers, and their families
to work in a safe and healthy manner.
4. To eliminate injuries and incidents, management must ensure that all employees are
properly trained on how to perform every job task efficiently and safely, and are properly
equipped to carry out their duties.
5. All employees must be involved in every area of the safety, health, and production process.

At the conclusion of this course, you should be able to:

1. Synthesize the functions and responsibilities of a safety professional.
2. Outline the components of an occupational safety and health program.
3. Define the safety roles and responsibilities of both management and employees.
4. Understand the principles of behavior-based safety management.
5. Conduct a safety audit and identify workplace hazards.
6. Conduct a job safety analysis.
7. Conduct an incident investigation.
8. Write a workplace safety policy/program.
9. Conduct effective safety training and education.
10. Understand how to learn about safety related issues on your own.
COURSE SCHEDULE

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<td>Ergonomics &amp; Industrial Hygiene</td>
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COURSE REQUIREMENTS
1. Actively participate in class both in person and online.
2. Read assigned materials.
3. Participate in a base group and work to ensure that all group members make satisfactory academic progress in achieving the goals of the course.
4. Pass the exams and quizzes.
5. Participate in the development and documentation of all group activities.
6. Complete individual reflections on the content and your learning of the content.

GRADING
There is a total of 1000 points possible.
- Exams (2 @ 100 points each) .............................................. 200 pts
- Final Exam ............................................................................. 150 pts
- Quizzes ..................................................................................... 100 pts
- Reflections on Learning (10 @ 10 points each) .................. 100 pts
- Safety Audit .............................................................................. 40 pts
- Incident Investigation .............................................................. 40 pts
- Job Safety Analysis ................................................................. 60 pts
- Job Safety Analysis Presentation ......................................... 30 pts
- Written Safety Program .......................................................... 100 pts
- Safety Training Presentation ................................................. 100 pts
- Safety Training Presentation Assessment ......................... 20 pts
- Group Documentation ............................................................. 20 pts
- Class Participation ................................................................. 40 pts

COURSE GRADE
Your final grade will be computed based on the following scale:

A  900 - 1000 points
B+  870 - 899 points
B   800 - 869 points
C+  770 - 799 points
C   700 - 769 points
D+  670 - 699 points
D   600 - 669 points
F   - 599 points

EXAMS
Your grade on the exams will be based on your individual performance. The Final Exam is comprehensive.
QUIZZES
Quizzes will be unannounced. They will be posted online with a due date. Quizzes are group activities. Every group member who participate will receive the same grade. Group members who do not participate will receive a zero and a missed quiz cannot be made up. The number of quizzes vary from semester to semester. As the number of quizzes increase, the value of each individual quiz decreases.

REFLECTIONS ON LEARNING
Approximately every week you will reflect on your learning associated with the topics presented during that week or since the last reflection. Each reflection must include these headings: 1) Summary and 2) Professional Implications. Start with a summary of the major points associated with that week’s topics (Summary) and then reflect on their importance to your future activities as a safety professional (Professional Implications). These reflections (300-500 words) need to be posted to WebCT by Friday 6 pm as indicated in the schedule. Reflections should be prepared in Word and spell checked before posting them to the Bulletin Board associated with the reflection (do not post the Word file). Include the word count at the end of the reflection. Use your name as the title of the reflection. These are individual assignments and will be graded on your individual performance. However, you may certainly discuss them with group members. Grading will be based on your ability to communicate reflective thinking.

I expect you to read all the reflections posted by the class. Each week, as part of class participation, you must select at least one posted reflection and respond publicly to the student with a critical analysis of his reflection. Your critique will address her thoughts in each category as well as her ability to communicate her thoughts. The goal is to provide feedback to improve his reflection for the next week. You may post as many critiques (approximately 50 words) as you want each week. The more meaningful postings you make to online discussions, the higher your class participation grade will be (see the class participation rubric for details).

SAFETY AUDIT, INCIDENT INVESTIGATION, & JOB SAFETY ANALYSIS
These are group activities to help you gain experience in conducting some of the functions of a safety professional. The group process provides learning support during the activities. It is important for everyone to participate fully. These assignments must be typed and include a cover page. The cover page must include the assignment title, the due date, the title of the class, the instructor’s name, your group ID, and names and class IDs for each group member. The Job Safety Analysis assignment also includes a class presentation. The presentation will be a short summary of the task, the significant hazards involved, and recommendations to reduce injuries while performing the task. The presentation should last ten minutes and all group members must participate in the presentation. A base score will be assigned for each activity. Individual scores will be calculated using the base score and peer evaluations. All assignments must be submitted electronically through WebCT. The JSA presentations will occur during a scheduled Tuesday class time. Off campus students may choose to come to class and present, or will need to arrange to video your group presentation and send it to me electronically.
WRITTEN SAFETY PROGRAM

Your group will need to select a safety program topic from the list provided below and then develop a generic written program for that topic. Topics cannot be repeated and will be assigned to groups on a first come, first served basis. Your final Written Safety Program is worth 100 points. The Written Program Progress Report is a midpoint check to keep me appraised of progress being made. While the progress report is not graded, it does provide the opportunity for critical feedback.

Written Safety Program Topics

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<th>Personal Protective Equipment (PPE)</th>
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<td>Inspections and Audits</td>
<td>Bloodborne Pathogens</td>
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<td>Fall Protection</td>
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<td>Fleet Safety</td>
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<td>Product Safety</td>
<td>Safety Incentive Program</td>
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<td>Back Safety</td>
<td>Industrial Trucks</td>
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<td>Respiratory Protection</td>
<td>Off-the-Job Safety Program</td>
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<td>Employee Wellness Program</td>
<td>Laboratory Safety</td>
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<td>Office Safety</td>
<td>Indoor Air Quality</td>
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SAFETY TRAINING PRESENTATION

This is a group presentation associated with your written safety program. The intended audience for your presentation is a group of wage employees in an industrial setting as part of their safety training. The class presentation should last 20 minutes. The presentation may be a lecture, group discussion, demonstration, etc. or any combination. Videos may be used, but cannot be the major component of the presentation. All group members must participate in the presentation. On campus students will present their safety training during a scheduled Tuesday class time with the rest of the class serving as wage employees. Off campus students may choose to come to class and present, or will need to arrange to video your group presentation and send it to me electronically. The Presentation grade (100 points) will include the presentation itself and any visual aids (powerpoint) and handouts that go along with the presentation. The Presentation Progress Report is a midpoint check to keep me appraised of progress being made and an opportunity to get feedback on your powerpoint, handouts, and assessment component.
PRESENTATION ASSESSMENT
This assessment (20 points) must include both the assessment tool used to gage the effectiveness of your training and an answer key. The assessment will consist of at least 5 meaningful multiple choice questions covering the main points of the material presented.

GROUP DOCUMENTATION
Your Group Documentation (20 points) includes agendas and minutes of all group meetings held during the semester (both face-to-face and electronic meetings). This is the documentation of how your group worked and the process used to complete all group assignments and projects.

PEER EVALUATIONS
Peer evaluations will be turned in for each group activity (3 assignments, written program, safety training presentation, and presentation assessment) to assess group participation. These 6 peer evaluations are due the same day as the activity. To maintain confidentiality, you will email me via webct the ratings for all your group members (including yourself). There will also be an additional peer evaluation at the end of the semester due at the time of the final exam.

CLASS PARTICIPATION
This score will be based on attendance (for the on campus students), participation in class discussions in person and online, contribution to the achievements of your base group, etc. The rubric details are on the assessment sheet.

ACCEPTANCE OF LATE WORK
Assignments are due as indicated in this syllabus and on the assignment instructions. Late projects and assignments will be penalized 25% per week until handed in.

EXTRA CREDIT
Extra credit assignments can be turned in to supplement missed quizzes or a bad score on an exam. A maximum of 25 extra credit points are possible. Extra credit assignments need to be approved in advance. All extra credit assignments must be turned in by the start of Dead Week.

CLASSROOM EXPECTATIONS
This is primarily an online course. I expect all of you be willing to share your experiences, insight, and thoughts openly with the class as part of the online discussions. All postings (including the reflection critiques) will be professional. Each base group will be assigned a private bulletin board to encourage additional group interaction and discussion.

DISABILITY ACCOMMODATIONS
If you have a documented disability that qualifies under the Americans with Disabilities Act and Section 504 of the Rehabilitation Act and requires accommodations, you will need to go to the Disability Resource (DR) Office for coordination of your academic accommodations. DR is located on the main floor of the Student Services Building, Room 1076-- phone 515-294-7220.
Melody Carroll, 114 E E II building-- phone 294-6239, is the Disability Resource Liaison for the department of Agricultural and Biosystems Engineering. Please work with Melody and myself to address any special needs or special accommodations at the beginning of the semester.

BASE GROUP

Base groups are cooperative learning groups whose primary responsibility is to provide each student the support, encouragement, and assistance they need to make academic progress. Base groups personalize the work required and the course learning experiences. The members of your base group should exchange phone numbers and information about schedules since you will need to meet to discuss topics and complete course assignments and projects. The base group functions as a support group for members that:

1. Gives assistance, support, and encouragement for mastering the course content and provides feedback on how well the content is being learned.
2. Provides a set of interpersonal relationships to personalize the course and an arena for working on interpersonal and group communication and interaction.

Responsibilities:

1. Master the course content to meet the objectives and requirements of the course. (You are accountable to both me, as the instructor, and the members of your base group for your participation in class and your performance on quizzes and group activities.)
2. Ensure that all members of your base group master the course content to meet the objectives and requirements of the course.
3. Share experience and knowledge with group members and class.

Ultimately you are each responsible for ensuring that your group works well together. I hope that your group members become your friends, but that is not necessary. In fact, you can work well together even if you do not like your group members at all. I have put some structures in place to help facilitate your group activities by holding each group member individually responsible for their share of the work. You will complete a peer evaluation for each group activity. If a group member does not participate, then as a group, you do not have to give him or her credit for the work done by the rest of the group. If non-participation becomes a habit, the group may also consider firing the group member.

Firing group members:

Groups may chose to fire group members who are not sharing in the group workload and contributing to the success of the group. Firing a group member is an extreme response and can only be done after attempts in getting the group member involved have failed. The steps for firing a group member are:

1. After being unsuccessful in getting a group member to participate, the group member needs to be informed in writing that he or she is in jeopardy of being fired from the group. This memo needs to include specific documentation of the problem, the attempts that have been made to try to resolve the problem, and group expectations to maintain
group membership. This memo needs to be signed by all other group members and a copy needs to be given to the instructor.

2. The group member receiving the memo needs to respond, in writing, to the group acknowledging that the memo has been received and understood. A copy of this response also needs to be given to the instructor.

3. After receiving the written warning, if a group member is still not participating and contributing to the group in a satisfactory manner, he or she can then be fired from the group. This notification needs to be done in writing explaining how the group member failed to meet the expectations established in the warning memo. This memo also needs to be signed by all other group members and a copy needs to be given to the instructor.

4. Upon receipt of notification that a group member has been fired, the instructor will remove that member from the group roster and he or she will be considered an individual group for the rest of the semester. Group members who are fired will be responsible for completing the remaining assignments on their own. This will include completing a new written program and safety training presentation on their own.