Course Syllabus

PubH 6150
Interdisciplinary Evaluation of Occupational Health and Safety Field Problems
Spring 2009

Credits: 3
Meeting Days: Tuesdays
Meeting Time: 10:10-1:10
Meeting Place: Mayo 1250
Instructor: Nancy Nachreiner, PhD, MPH, RN, COHN-S
Office Address: 1234 Mayo
Office Phone: 612-625-2487
Fax: 612-626-4837
E-mail: nachr001@umn.edu
Office Hours: Arranged

I. Course Description

In this course, you will utilize a systematic team approach to assess and evaluate the work environment and occupational health and safety programs.

II. Course Prerequisites

Environmental Health Sciences student or instructor permission

III. Course Goals and Objectives

Overall Course Objectives:

1. Develop an understanding of the roles and functions of occupational health and injury/safety professionals as members of an interdisciplinary team
2. Identify a team approach to a planned assessment and evaluation of a specific worker population and workplace
3. Relate working conditions to the health and safety of the workers
4. Discuss concepts of hazard recognition, evaluation and control
5. Identify trends in health care costs and the implications for employers and employees
6. Discuss integrated models of occupational health, safety and benefit programs
7. Apply evaluation principles to a specific occupational health and safety program

January 22, 2009
Specific Course Objectives:

Industrial Hygiene

1. Identify real and potential health and safety hazards utilizing pre-site preparation and a walk-through survey.
2. Evaluate existing industrial hygiene programs.
3. Assess labor-management relations as they impact health and safety.

Occupational Injury Prevention and Control

1. Identify incidence and severity rates and rates for types of injuries incurred by employees.
2. Assess specific tasks and processes, in concert with available data, to detect potential risk factors for the injuries.
3. Evaluate current programs/efforts in place to prevent and control the injury problems.
4. Provide recommendations for future efforts that may reduce the identified injury problem(s).

Occupational Health Nursing

1. Identify populations at risk utilizing general demographic data and injury/illness records.
2. Identify real and potential health and safety hazards utilizing pre-site preparation and a walk through survey.
3. Recommend prevention programs based on education, engineering and enforcement strategies specific to the occupational setting.

Occupational Medicine

1. Evaluate the health hazards associated with major industrial processes represented at the plants visited.
2. Analyze preventive programs aimed at the hazards identified.
3. Assess the need for surveillance programs specific to the work setting.
IV. Methods of Instruction and Work Expectations

• We are guests at the facilities we visit; please be professional.

• You are expected to attend all class sessions and field trips. Assignments are due at the beginning of class on the assigned date.

• If you cannot attend a class or field trip, you must notify the instructor at least 24 hours prior to class. Only extraordinary circumstances are considered “excused” absences. Unexcused absences will result in loss of 10 points, per occurrence, from your final grade.

• Please be on time for class and field trips. Being late to class (arriving more than 10 minutes after the class start time) more than once may result in the loss of 5 points from your final grade, for each occurrence.

• Please complete assignments on time. For each day that an assignment is late, you will lose 20% of the value of the assignment.

• You will be expected to participate in group activities, both in class and outside of the formal class meeting time. Please make yourself available for all such activities, be respectful of group members, and participate fully as a member of the group.

• Assignments must be typed and free from spelling errors. The final report must be double spaced.

• You are strongly encouraged to give constructive feedback regarding the course content or teaching methods.

• Make use of additional resources, as necessary, for completing your assignments. All such resources should be properly cited. You are expected to submit work that is your own, even if you seek advice and review from others. You are also expected to be aware of the University policies on plagiarism and to discuss them with the instructor should you have any questions. Be aware that submission of work that is not your own may result in a failing grade and could result in expulsion from the program.

Field Trip Requirements:

• It is extremely important that you dress appropriately when visiting an industrial location, particularly in the context of health and safety. An additional requirement of this course, therefore, is that you are properly attired during a field trip. This means that you should wear pants (no skirts or dresses) and sturdy, closed-toed shoes. Some worksites require steel-toed shoes; this requirement varies from year-to-year, and by location. Do not wear dangling clothing or jewelry (no scarves, ties, necklaces, dangling earrings, bracelets, pins, or rings, etc.). A jacket may be appropriate in some locations, but keep in mind that many industrial processes are very dirty. Do not wear anything that cannot be cleaned.

• If you are not properly attired at the start of the field trip, you will not be able to participate in any of the activities in the plant. There can be no exceptions. If you are unable to participate in a field trip due to improper attire, you will lose 5 points, per occurrence, from your course grade.

• Personal protective equipment will be provided, if needed, on the field trips. However, if you have your own protective equipment, such as safety glasses or hearing protection, you may wish to bring these along as well. Visitor safety glasses are often not the right size and may be difficult to see through.

• Bring a pad of paper, a pen/pencil, and photo identification (e.g. driver’s license). Please avoid bringing valuables, such as large purses or backpacks, on field trips. Either leave them at home, or lock them in your vehicle. Large backpacks or purses can get in the way when you are touring and recording your observations, and some facilities will not have locked areas to leave these items during tours.
V. Course Text and Readings

- Syllabus
- Readings specific to the worksite health and safety issue identified by your group
- Supplemental readings are available from the instructor.

VI. Course Outline/Weekly Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Presenter</th>
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<tbody>
<tr>
<td>1</td>
<td>January 20</td>
<td>Course Overview and Objectives, Human Subjects Review, Team Orientation</td>
<td>Nancy Nachreiner</td>
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<td>2</td>
<td>January 27</td>
<td>Team meeting (no formal class)</td>
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<td></td>
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<td>Ideal time to schedule initial meeting with company contact</td>
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<td>3</td>
<td>February 3</td>
<td>Case Study (Prospect Foundry)</td>
<td>Bill Lohman and Lisa Brosseau</td>
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<td><strong>IRB assignment due (each student)</strong></td>
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<td>4</td>
<td>February 10</td>
<td>Overview: Role of consultant</td>
<td>Phil Jacobs</td>
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<td>Group meetings</td>
<td>All groups</td>
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<td><strong>Operating guidelines (one per group)</strong></td>
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<td>5</td>
<td>February 17</td>
<td>Writing and Presentations</td>
<td>Ron Pearson</td>
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<td></td>
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<td>Plan tour 1</td>
<td>Group 1</td>
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<td>Group meeting</td>
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<td><strong>Problem statement due (one per group)</strong></td>
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<td>Individual evaluation of team process (each student)</td>
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<td><strong>Individual contribution to team effort (midterm) (each student)</strong></td>
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<td>6</td>
<td>February 24</td>
<td>Tour 1: Nordic Ware</td>
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<td>7</td>
<td>March 3</td>
<td>Discuss Tour 1</td>
<td>Group 2</td>
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<td>Plan Tour 2</td>
<td>Group 2</td>
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<td>Group meeting time</td>
<td>All groups</td>
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<td>8</td>
<td>March 10</td>
<td>Tour 2: Thomson Reuters</td>
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<td>March 17</td>
<td>Spring Break</td>
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<td>March 24</td>
<td>Discuss tour 2</td>
<td>Group 1</td>
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<td>Plan tour 3</td>
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<td>Group meeting time</td>
<td>All groups</td>
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<td>March 31</td>
<td>Tour 3: Alum Can</td>
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<td>April 7</td>
<td>Discuss tour 3</td>
<td>Group 2</td>
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<td>Plan tour 4</td>
<td>Group 1</td>
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<td>Plan tour 5</td>
<td>Group 2</td>
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<td><strong>Assignment</strong></td>
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<td>Group meeting time</td>
<td>All groups</td>
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<td><strong>Reports due</strong></td>
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<td>April 14</td>
<td>Tour 4: LFHI</td>
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<td>April 21</td>
<td>Team meeting (no formal class)</td>
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<td><em>Ideal time to finalize presentation and report</em></td>
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<td>April 28</td>
<td>Tour 5: Arboretum</td>
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<td>May 5</td>
<td><strong>Team presentation of problem to company management</strong></td>
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<td>Final, <strong>REVISED</strong>, reports due</td>
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<td>Individual contribution to team effort (final)</td>
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**VII. Evaluation and Grading**

**Assignments:**

- **IRB Assignment (25 points)**
  Each student must complete the online Human Subjects tutorial prior to data collection for the team project. You must achieve at least a 90% passing score. If your score is lower than 90%, retake the test until you achieve at least 90%.

- **Pre-Tour Preparation (30 points)**
  Groups will alternate providing pre-tour presentations. Your group will have 30 minutes for the presentation. Assume you are an occupational health and safety consultant who has been called by the company to conduct a site visit and counsel them on the most important hazards at the worksite. In preparation for your site visit, you do a background search. What does this company do? What are the major products/processes for these types of companies (food processing/packaging facilities, newspaper publishers, etc.)? What is the history of this company? What are you anticipating as your top concerns about this type of work environment? Consider physical, chemical, biological, ergonomic, and psycho-social hazards. Find one OSHA standard or guideline especially relevant to this worksite. Describe why this standard or guideline is particularly important to this industry. For example, if we were touring a nursing home, you might print and describe the importance of OSHA’s Ergonomics for the Prevention of Musculoskeletal Disorders: Guidelines for Nursing Homes. The purpose of this assignment is to help you become prepared for the tours. Some hazards may be consistent from one worksite to the next, but others are of particular importance by specific industry.

*January 22, 2009*
• **Post-Tour Discussion (30 points)**

Groups will alternate providing post-tour discussions. Your group will have 30 minutes for the presentation. Now that we have toured the worksite, review: who led the tour (the human resources representative, occupational health nurse, etc. the person's role in the company can make a difference in what was viewed during the tour); the tour leader's leading health and safety problem; a general diagram of the worksite and process flow, address all five types of hazards (physical, chemical, biological, ergonomic, psycho-social), noting at least two hazards per category, discuss prevention and control measures in place or needed, and comment on your primary health and safety issue and overall tour quality. Be creative! Engage your fellow classmates in the discussion. **The purpose of this assignment is to help you assess and discuss the hazards and controls that you actually found on the tours.**

• **Contribution to Team Effort (20 points; each team member completes a form at midterm and final)**

"Individual Contribution to Team Effort" (average score given by team members, maximum 10 points at midterm, maximum 10 points at final)

• **Problem Statement (10 points; turn in one typed copy per group. Explain in a few sentences the purpose of your project. Think of the "w" questions: who, what, why, where, etc. to guide your description.)**

• **Operating Guidelines (10 points; turn in one typed copy per group answering the questions posed in the syllabus for this assignment.)**

• **Individual Evaluation of Team Process (10 points; each member turns in their responses on the forms included in the syllabus)**

• **Problem Specific Report (maximum 100 points)**

Directions and content for this report are included on the page titled, "Problem Specific Report." Include one disk copy of your report with the hard copy you turn in. Although you are working on these reports as a team, each member may be writing a different section. **Read the report as a whole before submission.** The report should flow logically from one section to the next. Your faculty facilitator and the instructor will have comments on your report. Your group will be expected to make necessary changes (or explain why you choose not to make the changes). You will be graded on the first report you hand in; however, we will re-review your final report and you have the opportunity to improve your grade when you turn it in on the final class day. **The first copy you submit is NOT a rough draft or outline; it is your final report.** The advantage is that you will have an opportunity to respond to your critique, and your group has the chance to improve your grade. Remember: these reports are submitted to your company; they must be professional and accurate. Groups may receive an incomplete grade until necessary revisions are made to the final report, and the report is acceptable to be submitted to the company.

• **Team Presentations of the Problem Specific Report to Company Management (maximum 100 points)**

Directions and content for this report are included on the "Problem Specific Presentation" form. Focus on what is important for top company management. An extensive overview of the company is not necessary, as the company representatives attending the presentation are familiar with their own organizations. Each team is responsible for providing handout copies of their slides for all students and faculty at the beginning of their presentation. If you need copies made for your group, turn in a master copy to Nancy the week prior to your presentation. This is a professional presentation to management, and we encourage company contacts to attend. Please dress appropriately.

**Grading Option**

In general, EnHS students must take this class A/F. S/N option will be expected to complete all assignments and receive a minimum of 70% on each to receive a passing score. A/F option must complete all assignments to a C level (70%) and letter grade will be determined by total effort as follows:

\[
A = 95-100\% (4.0) \text{ Represents achievement that is outstanding relative to the level necessary to meet course requirements}\]

\[
A- = 90-94\%
\]

\[
B+ = 87-89\%
\]
B = 83-86% (3.0) Represents achievement that is significantly above the level necessary to meet course requirements
B- = 80-82%
C+ = 77-79%
C = 73-76% (2.0) Represents achievement that meets the minimum course requirements
C- = 70-72%
no pass below 70%

Course Evaluation
Beginning in fall 2008 the SPH will collect student course evaluations electronically using a software system called CoursEval. The system will send email notifications to students when they can access and complete their course evaluations. Students who complete their course evaluations promptly will be able to access their final grades just as soon as the faculty member renders the grade. All students will have access to their final grades two weeks after the last day of the semester regardless of whether they completed their course evaluation or not. Student feedback on course content and faculty teaching skills are important means for improving our work. Please take the time to complete a course evaluation for each of the courses for which you are registered.

Incomplete Contracts
A grade of incomplete “I” shall be assigned at the discretion of the instructor when, due to extraordinary circumstances (e.g., documented illness or hospitalization, death in family, etc.), the student was prevented from completing the work of the course on time. The assignment of an “I” requires that a contract be initiated and completed by the student before the last day of class, and signed by both the student and instructor. If an incomplete is deemed appropriate by the instructor, the student in consultation with the instructor, will specify the time and manner in which the student will complete course requirements. Extension for completion of the work will not exceed one year (or earlier if designated by the student’s college). For more information and to initiate an incomplete contract, students should go to: www.sph.umn.edu/grades.

University of Minnesota Uniform Grading and Transcript Policy
A link to the policy can be found at onestop.umn.edu.

VIII. Other Course Information and Policies

Grade Option Change (if applicable)
For full-semester courses, students may change their grade option, if applicable, through the second week of the semester. Grade option change deadlines for other terms (i.e. summer and half-semester courses) can be found at onestop.umn.edu.

Course Withdrawal
Students should refer to the Refund and Drop/Add Deadlines for the particular term at onestop.umn.edu for information and deadlines for withdrawing from a course. As a courtesy, students should notify their instructor and, if applicable, advisor of their intent to withdraw.

Students wishing to withdraw from a course after the noted final deadline for a particular term must contact the School of Public Health Student Services Center at sph-ssc@umn.edu for further information.

Student Conduct, Scholastic Dishonesty and Sexual Harassment Policies
Students are responsible for knowing the University of Minnesota, Board of Regents’ policy on Student Conduct and Sexual Harassment found at www.umn.edu/regents/polindex.html.

Students are responsible for maintaining scholastic honesty in their work at all times. Students engaged in scholastic dishonesty will be penalized, and offenses will be reported to the Office of Student Academic Integrity (OSAI, www.osai.umn.edu).

The University’s Student Conduct Code defines scholastic dishonesty as “plagiarizing; cheating on assignments or examinations; engaging in unauthorized collaboration on academic work; taking, acquiring, or using test materials without faculty permission; submitting false or incomplete records of academic achievement; acting alone or in cooperation with another to falsify records or to obtain dishonestly grades,
honors, awards, or professional endorsement; or altering, forging, or misusing a University academic record; or fabricating or falsifying of data, research procedures, or data analysis."

Plagiarism is an important element of this policy. It is defined as the presentation of another's writing or ideas as your own. Serious, intentional plagiarism will result in a grade of "F" or "N" for the entire course. For more information on this policy and for a helpful discussion of preventing plagiarism, please consult University policies and procedures regarding academic integrity: [http://writing.umn.edu/tww/plagiarism/](http://writing.umn.edu/tww/plagiarism/).

Students are urged to be careful that they properly attribute and cite others' work in their own writing. For guidelines for correctly citing sources, go to [http://tutorial.lib.umn.edu/](http://tutorial.lib.umn.edu/) and click on “Citing Sources”.

In addition, original work is expected in this course. It is unacceptable to hand in assignments for this course for which you receive credit in another course unless by prior agreement with the instructor. Building on a line of work begun in another course or leading to a thesis, dissertation, or final project is acceptable.

**Disability Statement**

It is University policy to provide, on a flexible and individualized basis, reasonable accommodations to students who have a documented disability (e.g., physical, learning, psychiatric, vision, hearing, or systemic) that may affect their ability to participate in course activities or to meet course requirements. Students with disabilities are encouraged to contact Disability Services to have a confidential discussion of their individual needs for accommodations. Disability Services is located in Suite180 McNamara Alumni Center, 200 Oak Street. Staff can be reached by calling 612/626-1333 (voice or TTY).