

<b>Course Title:</b>	Industrial Site Visits
<b>Course Number:</b>	ENOH 0564
<b>Course Location:</b>	Video conference and Site visits to industrial facilities. Webcams are required.
<b>Course Date &amp; Time:</b>	Wednesdays; 9:00 AM to 11:00 AM Six site visits, times vary according to site.
<b>Course Instructor:</b>	Mitchel A. Rosen, PhD Assistant Professor Rutgers School of Public Health 300 atrium Drive, Room 106 Somerset, NJ 08873 732-235-9452 mrosen@rutgers.edu
<b>Office Hours:</b>	By Appointment

**This course is an interdisciplinary course of the New York and New Jersey Education and Research Center. Priority registration is given to NYNJERC Trainees. Others may register with permission of course instructor.**

**Required Readings:**

Listed with each site visit on the syllabus and in Moodle.

**Course Description:** A review of major industrial processes and health hazards associated with each. Includes site visits to metropolitan NY/NJ industrial facilities during working hours. Trainees will learn key concepts of industrial hygiene and safety, including hazard recognition and control methods.

**Selected Concentration Competencies Addressed:** Each Concentration identifies competencies for each degree offered. The competencies addressed in this course for the MPH in Environmental Health Sciences:

- Describe the major environmental health problems facing the general public as well as among specific communities or susceptible, vulnerable sub-populations
- Specify current environmental risk assessment approaches and methods for a particular hazard or risk in a community
- Describe the federal and state regulatory programs relating to environmental (community) protection
- Identify occupational safety and health issues in the workplace
- Apply federal and state regulatory standards which are related to worker safety and health protection.

Please visit the Concentration webpages on the School of Public Health's website at [sph.rutgers.edu](http://sph.rutgers.edu) for additional competencies addressed by this course for other degrees and concentrations.

**Course Objectives:** By the completion of this course, students will be able to:

- Identify exposure mechanisms to occupational safety and health hazards in industrial facilities
- Develop a basic risk assessment plan for the characterization, management, and remediation of health and safety hazards

**Course Requirements and Grading:**

- Each student must prepare a *reaction paper* for each site visited. The reaction paper will be a maximum of 350 words. The paper will capture your reaction to the safety and health practices at the site, based on the hazards, worker exposures, and control methods in place at the site. These will be discussed on the video conferences. Class participation and discussion is an important part of the class. **Late papers will not be accepted.**
- Each student must complete two *hazard abatement memos* from the sites visited during this course. Following the completion of the site visit you are required to write a *two-page memo*, from the perspective of a worker, outlining one particular hazard present, its potential health effects, and recommended control(s) to mitigate exposure. Students are responsible for writing site summaries for two of the six sites visited during the semester.
- Each student shall write one *formal site visit report* (5-8 pages) for the semester. This report can be written about any of the sites from the semester. The paper should contain background information about the facility we visited, the work processes conducted, a discussion of your observations during the walkthrough, your assessment of existing controls, and your recommendations for improvements. **Late papers will not be accepted.**

**Formal Site Visit Report Sections (estimated length of report: 5-8 pages)**

- Introduction (should be no more than a 3 pages)
  - Discuss the type of industry, the processes used and hazards encountered
  - The health effects of chemical and physical hazards observed
  - Basic information about the facility, such as location, numbers of employees, annual sales, etc. A summary of any violations found by OSHA or other official inspectors is useful.
- Walkthrough process  
The walkthrough should be a narrative of your observations during the site visit.
  - Describe the hazards you observed and how workers are being exposed. The controls in place to reduce or eliminate these hazards in each department/division. Indicate which workers are being exposed and how they are being exposed e.g. spraying solvents. Were there hazards you detected that were not adequately controlled? If so, describe them and any controls you think are appropriate.
  - Diagrams of processes are always helpful

- Photos taken during the site visit are often helpful, but they should not take up more than a page of your 5-8 pages. Prior to taking photos during the visit please ask faculty and the tour guide if this is permissible. If you wish to use more photos, please do not hesitate to do so, but in that case they should add to the length of the paper beyond 5-8 pages. Photos are not a substitute for text, but a supplement to it.
- Materials that cause or contribute to the hazards observed should be named in your discussion
- Don't forget to observe physical and biological as well as chemical hazards. Also keep an eye out for ergonomic hazards.
- Summarize your recommendations for improvements in worker health and safety in the plant or facility.
- Briefly present your overall impression of health and safety conditions in this plant or facility.
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### Grading

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| 1. Site summaries and memo (2) [10 pts each] | 20 pts.  |
| 2. Reaction papers (6) [5 pts each]          | 30 pts.  |
| 3. Class participation                       | 10 pts.  |
| 4. Formal Site Visit Report                  | 40 pts.  |
| Total:                                       | 100 pts. |

- Attendance at video conference sessions and site visits is mandatory (One excused absence is allowed). Please notify instructor via email if you cannot attend the site visit. It is expected that all students will provide input into the class discussions.
- No credit will be given for work handed in after deadline.
- No make-ups, rewrites, or extra credit will be allowed in the course.

### Course Schedule:

Date of Session	Topic/ Site	Assigned Readings	Assignment due
January 24	Course Introduction. Overview of IH IH Walk through OSHA Standards Haz Comm Job Hazard Analysis (JHA) Safety and Health Management In Person at Center for Public Health Workforce Development 300 Atrium Drive Somerset, NJ 08873	1. Read Chapter 30 - Occupational Hygiene, from the Encyclopedia of Occupational Health and Safety 2. OSHA 3143 Information Booklet on Industrial Hygiene 3. Managing Hazards through Hierarchy of Controls	
January 31	Personal Protective Equipment PPE donning and doffing Prepare for Site Visit 1: Brooklyn Brewery	29CFR1910.132-138 LOTO	

	In person at Center for Public Health Workforce Development 300 Atrium Drive Somerset, NJ 08873	Machine Guarding 2. Lock out / Tag out 3. Lock out / Tag out OSHA Factsheet 4. Confined Space Entry	
February 7	Site Visit 1: Brooklyn Brewery		
February 14	Video conference. Review Site Visit 1 and prepare for Site Visit 2	1. Controlling Health Hazards to Hospital Workers: A Reference Guide	Reaction paper 1 due February 13 at noon.
February 21	Site Visit 2: University Hospital, Newark NJ		.
February 28	Video conference. Review Site Visit 2 and prepare for Site Visit 3.	1. Ergonomics - Success Stories /New York Times Company 2. NIOSH FACE Report Printing Machine Operator Electrocuted in Indiana 3. OSH Practices: A Guide for Printers. Pages 23-79 4. Forklifts 5. Material Handling	Reaction paper 2 due February 27 at noon
<b>March 7</b>	<b>Site Visit 3: New York Times Printing 1 PM</b>		.
March 14	NO CLASS – SPRNG BREAK		
March 21	Video conference. Review Site Visit 3 and prepare for Site Visit 4		Reaction paper 3 due March 20 at noon
March 28	Site Visit 4: Hudson Scenery	1. Martin, Bibiana Crespo, Health And Safety Risks Associated With Handling Products Used In Painting, Drawing And Printmaking, 2013	Hazard abatement memo 1 due March 27
April 4	Video conference. Review Site Visit 4 and prepare for Site Visit 5.	1. OSHA 3132: Process Safety Management	Reaction paper 4 due April 3 at noon.
April 11	Site Visit 5: Firmenich		

April 18	Video conference. Review Site Visit 5 and prepare for Site Visit 6.		Reaction paper 5 due April 17 at noon
April 25	Site Visit 6: Construction Site		
May 2	Video Conference. Review Site Visit 6.		Reaction paper 6 due May 1 at noon.  Hazard abatement memo 2 due May 1
May 9	Final Papers due.		

**Learning Management System:** Moodle will be used extensively throughout the semester for course syllabus, assignments, announcements, communication and/or other course-related activities. It is the student's responsibility to familiarize themselves with Moodle and check it regularly. If you have difficulties accessing Moodle, please inform the instructor and Moodle Support ([moodlehelp@ca.rutgers.edu](mailto:moodlehelp@ca.rutgers.edu)). Moodle is accessible at [moodle.rutgers.edu](http://moodle.rutgers.edu).

**School of Public Health Honor Code:** The School of Public Health Honor Code is found in the student bulletin ([sph.rutgers.edu/academics/catalog/index.html](http://sph.rutgers.edu/academics/catalog/index.html)). Each student bears a fundamental responsibility for maintaining academic integrity and intellectual honesty in his or her graduate work. For example, all students are expected to observe the generally accepted principles of scholarly work, to submit their own rather than another's work, to refrain from falsifying data, and to refrain from receiving and/or giving aid on examinations or other assigned work requiring independent effort. In submitting written material, the writer takes full responsibility for the work as a whole and implies that, except as properly noted by use of quotation marks, footnotes, etc., both the ideas and the works used are his or her own. In addition to maintaining personal academic integrity, each student is expected to contribute to the academic integrity of the school community by not facilitating inappropriate use of her/his own work by others and by reporting acts of academic dishonesty by others to an appropriate school authority. It should be clearly understood that plagiarism, cheating, or other forms of academic dishonesty will not be tolerated and can lead to sanctions up to and including separation from the Rutgers School of Public Health.

**Students with Disabilities:** Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student must Apply for Services by first completing a Registration Form with the Rutgers Office of Disability Services (ODS) at [ods.rutgers.edu](http://ods.rutgers.edu). The student will also be required to participate in an ODS intake interview and provide documentation. If reasonable accommodations are granted, ODS will provide you with a Letter of Accommodations which should be shared with your instructors as early in your courses as possible.

**Graduate Student Computer Policy:** Students are required to possess a personal laptop, no older than approximately two years, that must meet minimum requirements which may be found online at: [sph.rutgers.edu/student\\_life/computer\\_requirements.html](http://sph.rutgers.edu/student_life/computer_requirements.html)

**Policy Concerning Use of Recording Devices and Other Electronic Communications Systems:** When personally owned communication/recording devices are used by students to record lectures and/or classroom lessons, such use must be authorized by the faculty member or instructor who must give either oral or written permission prior to the start of the semester and identify restrictions, if any, on the use of mobile communications or recording devices.

**Withdrawal/Refund Schedule:** Students who stop attending their course(s) without processing an [Add/Drop Course](#) form will receive a failing grade. Furthermore, students dropping to zero credits for the semester are considered withdrawn and must submit a completed [Leave of Absence](#) form from the School of Public Health's Office of Student Affairs. The School of Public Health refunds tuition only. Administrative and technology fees are non-refundable. You may find the Withdrawal/Refund Schedule on the School of Public Health website at: [sph.rutgers.edu/academics/registration/school\\_calendars.html](http://sph.rutgers.edu/academics/registration/school_calendars.html)