Course Syllabus and Outline

EHS 500 881
School of Public Health
University of Michigan, Ann Arbor

Course Information
Course Number and Section: EHS 500 881 F14
Course Title: Principles of Environmental Health Sciences

Course Description

EHS-500 is a 3.0 credit course that provides an overview of environmental health disciplines, methods, and topics. As such, it is designed as a “survey” course of an enormous subject area. This course fulfills the MPH core competency in environmental health. A basic understanding (high school level) of human biology and chemistry is recommended. With regards to pre-requisites, although some basic knowledge of chemistry, human biology and physiology is assumed, no professional training in medicine or health care is required.

“Environment” is broadly conceived, and students are exposed not only to conventional subjects such as air and water pollution and occupational health, but also to the nutritional environment and newly recognized topics such as the potential connections between ecologic issues—(such as climate change and biodiversity), energy use and sustainability— and human health. The course focuses mainly on issues pertaining to the United States, but EHS-500 also spends significant time addressing issues pertaining to developing countries and the impact of globalization on environmental health issues (such as the transnational migration of hazardous industries, products, wastes and dietary patterns among countries).

This course consists of recorded lectures on basic environmental health topics. Each lecture begins with a very brief introduction, followed by “modules”. Adobe Connect meetings (real-time online discussions with the instructor) will take place nearly every week, occurring Monday evenings from 7:00 - 8:20 pm Eastern time. During this time we will have focused discussions of the material, as well as specific case studies that are illustrative of the environmental topics at hand. These meetings will call on students to contribute to the discussion through their experiences and their knowledge of other disciplines (e.g. epidemiology, international health, behavior, policy; education, government, etc.). We will also utilize the CTools / Canvas portals and associated tools, including emails and discussion forums, for instructional purposes.

One exam and a final, consisting of multiple choice and short answer questions, will be given during the course to help assess basic competencies gained. As a culminating experience, students will work on a project, choosing either from a set of defined topics or working with the instructor to identify an appropriate subject of the student’s choosing. The project will result in both a term paper and a very brief PowerPoint presentation that captures the paper’s main points. This presentation will be recorded.
by the student and posted as a private YouTube video for viewing by the other students. Students will also be graded on participation (i.e., Adobe Connect discussions, comments posted to online forums).

### Course Competencies

<table>
<thead>
<tr>
<th>Comp #</th>
<th>Competency</th>
<th>Expected level of competency</th>
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</thead>
<tbody>
<tr>
<td>C1</td>
<td>Identify chemical and physical hazards in a range of common environments (e.g., home, work, aquatic)</td>
<td>Intermediate</td>
</tr>
<tr>
<td>C2</td>
<td>Describe the pathways by which humans are exposed to chemical and physical agents</td>
<td>Intermediate</td>
</tr>
<tr>
<td>C3</td>
<td>Recognize adverse health effects associated with common environmental and occupational stressors</td>
<td>Basic</td>
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<tr>
<td>C4</td>
<td>Understand the role of research on identifying, analyzing, and controlling exposures and environmental health hazards</td>
<td>Basic</td>
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<tr>
<td>C5</td>
<td>Find and apply information (e.g., policies, databases) relevant to the environmental health sciences</td>
<td>Basic</td>
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<tr>
<td>C6</td>
<td>Work harmoniously with students from other disciplines (within public health and beyond) to address relevant yet contentious environmental health issues</td>
<td>Basic</td>
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### Learning Objectives

<table>
<thead>
<tr>
<th>Learning objective</th>
<th>Learning objective</th>
<th>Expected level of knowledge</th>
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</thead>
<tbody>
<tr>
<td>L1</td>
<td>The historical, current, and future need for environmental health science as a field of study, from a scientific, practical, and personal perspective</td>
<td>Intermediate</td>
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<tr>
<td>L2</td>
<td>Key sources and exposure routes of environmental and occupational agents, with a focus on chemical and physical stressors</td>
<td>Intermediate</td>
</tr>
<tr>
<td>L3</td>
<td>How core principles in toxicology (e.g., toxicokinetics, dose-responses) pertain to the environmental health sciences</td>
<td>Basic</td>
</tr>
<tr>
<td>L4</td>
<td>Risk assessment approaches to integrate sources, exposure pathways, and adverse health outcomes</td>
<td>Basic</td>
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<tr>
<td>L5</td>
<td>Sensitive populations within the environmental health sciences</td>
<td>Basic</td>
</tr>
<tr>
<td>L6</td>
<td>Policies, guidelines, databases, and programs relevant to environmental health science</td>
<td>Basic</td>
</tr>
<tr>
<td>L7</td>
<td>Multiple perspectives on contentious, contemporary environmental health issues</td>
<td>Intermediate</td>
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</table>

**Course Components:**

*CTools*

CTools [https://ctools.umich.edu] is the online course management system used for UM SPH online courses. CTools is a UM web-based tool that requires authentication. To access your course and many other UM computing services you need to log in with your uniqname and Kerberos password.

The self-paced aspects of your course, including the syllabus, videos, narrated presentations, readings, forums, quizzes and miscellaneous course materials are located in your course’s CTools/Canvas site.

*To Do Pages*

Weekly To Do pages will be posted in the CTools course site which will provide you with the weekly course schedule, required readings and assignments, and links to recorded lectures and relevant resources. To Do pages are drawn from the Course Summary Schedule at the end of this document.

*Online Lecture Videos:*
Online lecture videos will provide background on each topic covered in the course. Links to the videos can be found on the To Do page on the appropriate tab in the CTools site. The videos can be viewed on any computer that has audio capability. Students often find it useful to speed up or slow down the lecture videos. To do this, download the video to your computer using the "Download" button that appears when you hover your mouse over a video, then open the video using the video player software of your choice. Most video players allow you to control playback speed, but if yours doesn't, we recommend the VLC media player (http://www.videolan.org/vlc/index.html).

**Real-Time Online Adobe Connect Meetings**

Weekly real-time, online class meetings will be held using a web conferencing technology called Adobe Connect. Participation in the online class meetings is required. The topics covered in these meetings are listed in the Course Summary Schedule at the end of this document. [This software is often referred to as simply ‘Connect’.]

The real-time Connect meetings will be recorded and posted in the appropriate To Do page within 48 hours for those students who are unable to participate or wish to revisit the material. This is not a substitute for attendance as participation greatly facilitates learning the material.

A **wired**, high-speed Internet connection and USB headset with microphone are required for your full participation. Please refer to the Technical Requirements page for headset specifications [http://www.sph.umich.edu/distance/requirements.html]. A **wireless Internet connection is NOT acceptable.**

**Self-Paced Forum Discussions**

You will have an opportunity to post your thoughts and opinions about various topics in the course and react to those of your classmates. These written, self-paced discussions provide an opportunity for you to engage site resources, other students and the Instructor. They allow for free expression of convergent and divergent ideas. They also allow time for reflective thinking and the development of ideas over time. Forums are accessed using the Forums Tool in the left hand menu bar of the CTools course site. Students are able to create Forum threads.

**Course Communication**

To ensure that your questions are answered as promptly as possible, please follow the communications guidelines below:

- **CTools Forum**: A special section of the discussion board has been set up for questions/answers about the course. This area will be monitored daily. You are strongly encouraged to respond to your peers if you have an answer or can provide guidance.
• **Personal email to the GSI/Grader:** Email should only be used for messages that are private in nature. Please allow 24-48 hours for response time.
• **Personal email to the instructor:** Email should be used only for messages that are private in nature. Please allow 24-48 hours for response time.
• **Technical Support:** Do not contact the GSI or Instructor regarding technical issues. Questions regarding technical support should be sent to cfph-help@umich.edu.
• **CTools Announcements:** Instructors and GSIs may post announcements via CTools that will be delivered to your UM Email account as well as displayed in the CTools course site Announcements section.
• **University of Michigan Email:** To ensure security and the privacy of each student, please use your UM email to communicate with your instructor and classmates. UM Email is accessed via https://email.umich.edu. To have your UM email forwarded to another account, please see http://www.itcs.umich.edu/itcsdocs/s4384/.

**Time Commitment**

Plan to participate in the course each day, following the course schedule. It’s difficult to predict how much time you will need to spend in this course each day. Some of you will be more comfortable working online than others. This course is not designed as an independent study course. Interaction with fellow students and instructional faculty and staff is an important component of this collaborative learning environment.

This distance learning program is based on a shared learning community, which encourages you to share in the learning process with your colleagues. Some of the CFPH program is based on group work where you will be expected to contribute your own knowledge, experience and effort to the group. It takes some practice and skill with technology to be successful working in a ‘virtual group’. As you go through the semester, be alert for announcements and email messages that prompt you on what to do next.

**Readings**


*Online Readings via CTools:* Additional readings pertaining to case studies and topics not covered in Frumkin will be available in CTools, the course management system used for your course. For some class topics, readings will be provided that are optional (i.e., they will not be the sole source of any information that will be required for the exams or paper) for learning more about specific areas; they will clearly be identified as “Optional Readings.” In general, the portions of the readings Dr. Rozek considers most important will be identified as such and you may be tested on your knowledge of them. *You are responsible for all material not marked as “optional.”*
<table>
<thead>
<tr>
<th>Assignment</th>
<th>Evaluation/Grading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper Topics: due on 5&lt;sup&gt;th&lt;/sup&gt; class</td>
<td>Not graded; submit on CTools in the Assignments left-hand menu bar</td>
</tr>
<tr>
<td>Test 1</td>
<td>15% of grade</td>
</tr>
<tr>
<td>Test 2</td>
<td>15% of grade</td>
</tr>
<tr>
<td>Final Exam</td>
<td>25% of grade</td>
</tr>
<tr>
<td>Upload your PowerPoint video to YouTube</td>
<td>Not graded</td>
</tr>
<tr>
<td>Term paper project</td>
<td>25% of grade</td>
</tr>
<tr>
<td>PowerPoint presentation of project</td>
<td>10% of grade</td>
</tr>
<tr>
<td>Connect participation</td>
<td>5% of grade</td>
</tr>
<tr>
<td>Self-paced online discussions participation</td>
<td>5% of grade</td>
</tr>
</tbody>
</table>

**Assignment Details**

**Real-time Connect Meetings and Self-paced Forum Discussion (10%)**

**Projects: Paper + PowerPoint (25% + 10% = 35%)**

The paper and PowerPoint presentation will be performed by students individually. The purpose of the paper/Power Point is to apply what you are learning in this course to a specific problem. Each paper will take the form of a report to an organization with decision making power (e.g., a UN agency, a national legislative body, a town council, an army general, a governor or president, a corporate vice president, or a community group) regarding an environmental health issue. The topic can either be chosen from the list included below or proposed by the student, but (1) the new topic will need to be described in detail for review band (2) the course faculty reserves the right to disapprove a proposed topic.

- Submit on CTools a Word document, listing (1) The selected topic, (2) background/context, and (3) recipient/decision maker. The final paper must be submitted through the Assignments area of the CTools site. Your grade for this paper will constitute 25% of the course grade.
- You will also create a five to ten minute PowerPoint presentation of your project for the class to be viewed one week prior to the Connect session to which your project is assigned. This is due to be uploaded to YouTube for all students. Directions on how to record and post your presentation are provided in Appendix 2 of the syllabus, and students in the class will be
required to view and post on the forum regarding your topic. Your grade for the presentation will constitute 10% of your course grade.

Additional guidelines can be found in Appendix 1.

**Exams**

**Tests (15% + 15% + 25% = 55%)**

Three tests will be given. The tests will consist of multiple choice and short answer/essay questions and cover content related to basic competencies and specific topics taught. The content will be 80% derived from material covered in the lectures; up to 20% may be from the readings and NOT in the lectures. As noted above under “Readings”, for some class topics, readings will be provided that are optional (i.e., they will not be the sole source of any information that will be required for the tests or paper). They are oriented towards students who want to learn more about specific areas and will be clearly identified as “Optional Readings”.

The final exam will be proctored on campus for those wishing and able to travel to campus. Otherwise a remote proctor must be arranged by the student.

**Remote Proctored Exam Information**

Students who are unable to travel to the UM Ann Arbor campus for testing must designate an appropriate remote proctor and testing site.

Who can be approved to serve as a proctor? An acceptable proctor is someone with no conflict of interest in upholding UM’s Academic Integrity Policy. Relatives, friends, spouses, neighbors, and co-workers are not acceptable proctors. Examples of acceptable proctors are:

- Human Resources Department staff in the company where the student is currently employed
- Direct supervisor at the place of employment, providing the setting is suitable for academic testing.
- An employee in an educational administrator's office or community college library, university, or high school
- Librarian or staff member at a public library
- An employee at a recognized professional learning center
- An officer of higher rank than the student, if in the military
- An employee at a college, university, or private testing center (in this case, the testing center director should be listed as your proctor)

It is your responsibility to identify an acceptable proctor and confirm arrangements regarding the scheduling and administration of the exam directly with the proctor. If an appropriate proctor cannot be arranged with the necessary internet access for student testing, a paper-based exam may be provided.

The proctor must meet the School of Public Health staff approval. A copy of the Academic Integrity Policy will be included with the testing materials. Both the student and the proctor must review, sign and return the policy with the examination and a copy of the proctor’s photo ID. A student in violation of the Academic Integrity Policy is subject to disciplinary action.
Exam Registration Database:

Whether you plan to take your exams on campus or with a remote proctor, you must register your plans and proctor information in the CFPH Program’s Exam Registration Database. [https://www.sph.umich.edu/iscr/cfph-exams/]. Plans must be registered at least two weeks before each exam to allow the CFPH Program adequate time to communicate with your proctor if needed.

Academic Conduct

It is expected that your conduct will be consistent with that of any public health professional, which includes respect for the instructor, GSI, and fellow students in all communications. Student academic misconduct refers to behavior that may include plagiarism, cheating, fabrication, falsification of records or official documents, and aiding and abetting the perpetration of such acts. While homework problem solving may be done jointly, the final preparation of homework and exam review sheets must represent each student’s own effort. Preparation of the midterm, final exam and paper must represent each student’s own effort. The use of assistance from other students is a violation of the standard of academic conduct. All incidences of academic misconduct will be referred to the Office of Academic Affairs.

Academic Well-being

Physical, psychological, and emotional well-being is vital for effective learning. Students are encouraged to contact the University’s office for Services for Students with Disabilities (SSWD; http://www.umich.edu/~sswd) or the office for Counseling and Psychological Services (CAPS; http://www.umich.edu/~caps). Any student who feels that he/she may need special accommodation for any sort of disability or wishes to discuss any relevant and/or confidential information is encouraged to make an appointment with the Instructor.

Accommodations and Conflicts:

If you think you need an accommodation for different abilities or a disability, please let us know at your earliest convenience. Some aspects of this course, such as the assignments, in-class activities, or the way we teach may be modified to facilitate your participation and progress. As soon as you make us aware of your needs we can work with you, the Office of Services for Students with Disabilities, or the Adaptive Technologies Computing Site to help determine appropriate accommodations. We will treat any information about your disability confidentially and with discretion.

Persons who have religious or cultural observations or personal needs that conflict with class, assignments or exams should let the instructor know. We encourage you to honor your cultural and religious holidays.
Course Withdrawal

Late registration and withdrawal deadlines are posted on the University’s Academic Calendar [http://www.ro.umich.edu/calendar/]. Students are advised to check for late registration fees or tuition penalties before making a change to course registration. Should you need to withdraw from the course or the term, please email a request to CFPHinquiries@umich.edu and a CFPH Program staff member will assist you.

Technical Support

If you encounter any technical difficulties regarding the course content or accessing University resources, please send an email to cfph-help@umich.edu. This account is monitored prior to and during all synchronous Adobe Connect sessions as well as during regular business hours (M-F 8 AM to 5 PM ET) by members of our help team. Please allow up to 24 hours for a response to routine questions. If you contact a member of the help team directly there may be an additional delay in response due to staff schedules.

Technical Requirements

In addition to meeting the recommended system requirements, students must understand basic computer and Internet usage to ensure a successful learning experience. Please review the requirements at http://www.sph.umich.edu/distance/requirements.html

General Guidelines and Suggestions

Assignment Deadlines: Assignments are due at 11:59 p.m. Eastern Standard/Daylight Time unless otherwise stated by your instructor and/or the course syllabus and schedule.

Late assignments: To benefit the most from this course, you should complete assignments by the due date.

Instructors may reduce points or not accept assignments posted after the deadline.

Backing up work: Technology is not 100% reliable. Plan ahead for unexpected interruptions. We recommend the following:

- Compose assignment and discussion responses in Word or another text editor, save them, then copy and paste them into the appropriate area.
- Keep a backup copy of all assignments, forum discussions or questions you post to the course site. Always check the forum areas after you have posted to make sure that your message is displayed. (Sometimes there is a short delay before messages are displayed by CTools)
- Download and/or print out assignments before you plan to work on them. That way, if your Internet connection is slow, or if you temporarily cannot reach the course site, you will have the assignments in hard copy or on your hard drive and can continue to work. Online readings
should also be downloaded and saved or printed out ahead of time so you have them at your disposal when you are ready to read them.

- If you can’t reach the course site, don’t panic. Wait a few minutes and try again. Notices of planned maintenance are posted to the CTools gateway home page, so be sure to make a note of these announcements.
- Before contacting central UM ITS Help, it is best to first send an email to cfph-help@umich.edu. If the CFPH staff can resolve an issue for you directly it will be faster.

Frequently Asked Questions (FAQ’s)

A list of FAQs is located at http://www.sph.umich.edu/distance/faqs.html.

Course Evaluations

Instructors may conduct mid-course surveys or gather informal feedback from you throughout the course. Electronic final course evaluations will be available through CTools towards the end of the semester.

We strongly encourage you to submit all evaluations as requested. Your opinion helps us to make necessary changes throughout the semester, and to plan better for future cohorts in the CFPH program.

APPENDIX #1 – Guidelines for the Paper and PowerPoint Presentation

Guidelines for writing the paper

- Format: The paper should be approximately 8 double-spaced pages, not including title page or any tables, figures, or references that are cited, with 1” margins all around. Avoid appendices unless they contain material that is essential to issues raised in the paper. Font size should be no smaller than Courier 12 characters per inch, CG Times 11, or their equivalent. THE GOAL HERE IS TO BE SUCCINCT AND WELL-ORGANIZED, RATHER THAN COMPREHENSIVE.
  - BEGIN the paper with a 1-2 page EXECUTIVE SUMMARY of the paper’s main points, especially your recommendations.
  - ORGANIZE the remaining text into subsections, each of which should have a sub-heading.
- Examples: One (or more) example(s) of a well-written, organized and formatted paper will be provided on CTools —NOTE that the topic covered in the sample paper will NOT be allowed.
- Issues that SHOULD be considered in each paper, if appropriate (they may not be but you should first check with the instructor):
  - Relevant toxicology of environmental risk.
  - Particular population at risk.
  - Route(s) of exposure, including source, fate and relevant exposure scenario.
  - Relevant epidemiology of environmental risk and health outcome(s) of interest.
  - Overall health impact assessment.
• Risk control strategies: types, practicality, scientific basis, and efficacy.
• Comparison of projected costs and benefits.
• Relevant regulations and laws.
• Recommended action.

• Additional considerations:
  o Have an identified context or place. In other words, consider a particular institution, city, industry, or country when discussing your topic. When you have a particular locus in mind, it will focus your paper.
  o You should also achieve focus by specifying a particular recipient for your report. Is this a report to the director of the World Health Organization? The governor of a state? The Minister of Health in your country? The board of selectmen of a town? The head of Region 1 in the EPA? A corporate medical director?
  o Don’t neglect the scientific basis of your topic. Do not assume that everyone knows what’s dangerous about asbestos or arsenic or cryptosporidium. A key part of each report will be an understanding of the human impact of a particular environmental risk or toxin.
  o Especially important, do not neglect the quantitative aspects of your problem. It is not enough to point out the risks associated with pathogens, asbestos, arsenic, or Agent X. It is crucial to clearly describe the exposure levels that you believe to be safe, and those, which are associated with, increased morbidity or mortality. If critical information is not available, clearly describe the data gaps where research is needed. It is essential to relate these levels to levels encountered in the situation you are describing. In other words, your final recommendation should be based on data and relate to current and desired levels (conditions).
  o Make compelling and specific recommendations. What can/should be done?
  o While OK to use the occasional web resource (make sure it is from a reputable agency), most of your references should be drawn from updated, peer-reviewed and published scientific papers. Please use and cite these properly.

Grading System for Papers

In general, papers will be graded along 5 dimensions, each given equal weight:

• Strength of the executive summary
  o For example, is it well written? Does it appropriately summarize the paper's main points? Does it "hang together" and make sense?

• Strength of the background section
  o For example, is the issue appropriately described? Are the key papers or other background documents cited correctly? Are they interpreted appropriately?

• Strength of the overall analysis made on the subject matter
For example, are the concepts in this class (toxicology, exposure assessment, risk control, etc.) used appropriately to analyze the problem? Are the gaps in information and uncertainties appropriately described?

- Strength of the recommendations made
  - Do they make sense? Do they provide realistic solutions? Are they in sync with the analysis?

- Organization/Style
  - Is the paper well-organized and written in a clear manner with smooth transitions from section to section? Are there figures, tables, or other tools used that make it easier to understand the material? Scientific facts and studies properly credited?

The PowerPoint Presentation

As noted above, you will also record a PowerPoint (PPT) presentation of your project. These presentations slides will be posted in CTools and a forum created for student feedback. The aims of preparing these presentations are:

1. To gain experience in the concise communication of your project’s main points in a simulation of a professional meeting setting.
2. To allow the faculty and fellow classmates to see the results of your efforts.
3. To allow for adding creativity to the presentation of your work (e.g., audiovisual aids, etc.).
4. To have some fun!!!!!!

Each PowerPoint file will be limited to 10 slides (including the title slide!), and the presentation will be limited to 10 minutes MAXIMUM. See Appendix 2 for explicit directions. Interaction between students is encouraged: Each student will be required to view all of the presentations of their classmates who share their Connect meeting timeslot. Students will both rate the presentations and pose questions in the Forum section.

Topics for Project/Term Paper/PowerPoint (suggesting your own topic is possible but needs to be approved by the course instructor).

1. Some predatory fish and shellfish are known to contain high levels of Mercury and PCBs. In a community where fish are an important source of nutrients and where commercial fishing is critical to the economy, what would your recommendation be to community leaders?
2. Vaccinations, such as that for measles (MMR), have recently become a point of contention between some parents and public health leaders. What risks do parents perceive? What are the known risks for children from vaccines? What risks do lower vaccination rates pose to the community at large? How can these risks be effectively communicated?
3. Dioxins are released into the environment from several sources including combustion, metal processing, and chemical manufacturing. Now considered to be a ubiquitous persistent pollutant, people around the world may be at risk of dioxin exposure. Discuss the variety of
health effects associated with exposure. Be sure to mention any populations at particularly high risk of exposure.

4. Compact fluorescent light bulbs (CFLs) use less energy, burn cooler, and have a longer lifetime, however, they contain the dangerous toxic pollutant – mercury. What are the pros and cons of using CFLs? What are the health risks associated with exposure to Hg? How should CFLs be disposed of to minimize environmental contamination? What would your recommendation be to consumers?

5. Should developing countries use chlorine to disinfect drinking water? What are pros and cons? What are other, feasible alternatives?

6. Asbestos continues to be used in the developing world, since it is an efficient insulating material. Some evidence exists to suggest that the chrysotile form of asbestos is less dangerous than other forms of asbestos. What is the evidence, and should all forms of asbestos be banned?

7. Devise an action plan for identifying and addressing the most important OUTDOOR air pollution issues in your country.

8. Devise an action plan for identifying and addressing the most important INDOOR air pollution issues in your country.

9. Health effects from radioactive waste at Yucca Mountain: What screening measures, if any, should be undertaken for residents living within a 10 kilometer radius?

10. Should manganese be permitted in fuel additives for cars and trucks? Are potential neurological effects of concern?

11. The current threshold limit value for welding fumes in the workplace is 5 mg/m³. Some evidence exists to suggest welding fumes can cause asthma and possibly an increased risk of lung cancer. Is the standard adequate? Should it be lowered?

12. Many of us live in old houses that have tap water that is supplied through lead pipes. Assume we own such a home and live in it. What is the risk posed to health by lead that leaches from the pipe, and what is the cost of replacing the lead pipe with a copper pipe? Is it worth it?

13. Breast cancer has been found to be experienced at high rates in certain communities. What are the potential environmental explanations (as well as non-environmental explanations) for this phenomenon? Is monitoring breast milk for environmental contaminants a good idea?

14. What pesticides are banned in the US but still being exported to other countries by US companies? What might be the consequent health risks or benefits to peoples in the other countries as well as our own? Should the practice continue?

15. Female pilots in the Air Force may be exposed to chemicals and to increased ionizing radiation while flying at high altitude. Does this present a risk if they become pregnant?

16. Do diesel particles cause lung cancer? How can exposures be reduced?

17. Should limited use of DDT be allowed? Where? When?

18. There is some evidence that psychosocial stress may make increase one’s susceptibility to environmental pollution? What is the evidence? Should this influence environmental regulations?
19. Specific causes for illnesses such as multiple chemical sensitivity and sick building syndrome are still under debate. What sort of evidence is there linking indoor air quality issues with these illnesses and how do you think this problem can be addressed?

20. An ergonomics standard was drafted but never passed in the US. Weighing the costs and benefits of instituting workplace ergonomics regulations, discuss whether you think this standard should be promulgated.

21. Many common household electronics are often recycled/disposed of in developing countries. These materials often contain numerous hazardous materials. What are the major concerns for those working in this recycling business? What about populations living nearby? Is this an issue that developed countries should address?

22. U.S. military facilities are exempt from many environmental regulations. What are the current environmental concerns? What legacy have these facilities left as older sites are closed down? (Try and look at issues relevant to Michigan)

APPENDIX #2 - These are the instructions for creating a video for your EHS presentation. There are four simple steps: Record, Review, Create Video, and Upload. The process is no more difficult than adding animations or other such activities within PowerPoint.

1. RECORD

1. Ensure your microphone is set up and in working order prior to recording your slide show.

2. On the Slide Show tab, in the Set Up group, click Record Slide Show.

3. Select

4. In the Record Slide Show dialog box that pops up, select the Narrations and laser pointer check box and the Slide and animation timings check box.

5. Click While recording, you can use the “laser pointer” by holding the Ctrl key and clicking on your slide to attract the viewer’s attention to a specific area.

6. To end your slide show recording, right click the slide, and then click End Show.

7. The recorded slide show timings are automatically saved and the slide show appears in Slide Sorter view with timings beneath each slide.

2. REVIEW

1. In the Slide Show tab, in the Start Slide Show group, choose either From Beginning or From Current Slide to review your recorded slide show.
2. If you’d like to re-record the audio for just one slide without re-recording your entire presentation, select the slide you’d like to redo, then select the **Slide Show** tab, and in the **Set Up** group, click **Record Slide Show**, and choose **Start Recording from Current Slide**. Be sure not to advance to the next slide while you’re recording, as that will overwrite your existing audio on the next slide. Instead, just right click the slide and click **End Show** when you’re finished recording.

3. **CREATE VIDEO**

1. Save your presentation.

2. On the **File** menu, click **Save & Send**, then choose **Create a video**. In the Create a Video menu, select the **Computer & HD Displays** quality setting, and **Use Recorded Timings and Narrations**.

3. Click **Create Video**. In the **File name** box, enter a file name for the video, browse for folder that will contain this file, and then click **Save**. You can track the progress of the video creation by looking at the status bar at the bottom of your screen.

4. **UPLOAD**

1. Log in to your University of Michigan email account at [http://email.umich.edu](http://email.umich.edu).

2. In the menu bar across the top, select **More**, then select **YouTube**.

3. Click **Sign in** in the upper right corner.

4. Click the **Upload** link at the top of the page.

5. Drag and drop your video presentation in the **Select files to upload** area.

6. In the Privacy settings menu, choose **Unlisted**.
7. Title your video as following: “EHS 500 First LastName”

8. **Post the link** in the **Presentation Teams Spreadsheet** in the course CTools site in the row with your name.