

**ENVIRONMENTAL HEALTH 175:197 EXW  
SPRING 2012 WEB-BASED COURSE**

**Course director:**

**Gabriele Ludewig, MS, PhD**

[gabriele-ludewig@uiowa.edu](mailto:gabriele-ludewig@uiowa.edu)

**Phone (319) 335-4650 and (319) 335-4353**

**S-355 CPHB, 105 River Street and**

**214 IREH, University of Iowa Research Park**

**Office hours: TBA**

**Course Department:**

**Dept. Occupational & Environmental Health, College of Public Health**

**The University of Iowa, Iowa City, IA 52242-5000**

**DEO: Peter Thorne, PhD**

**S341A CPHB, phone: 335-4216**

*Environmental health* comprises those aspects of human health that are determined by interactions with physical, chemical, biological and social factors in the global environment. It also refers to the theory and practice of assessing, correcting, controlling and preventing those factors in the environment that may adversely affect the health of present and future generations (definition by the World Health Organization).

*This course surveys all aspects, focusing on issues most relevant today.*

## **COURSE GOALS**

The aims of "175:197 Environmental Health" are to help the students:

1. Become conversant in all aspects of environmental health consistent with the expectations for holders of an M.P.H., an M.S. or Ph.D. in a Public Health discipline, or an M.S. in Environmental Engineering, or an M.S. or Ph.D. in Human Toxicology.
2. Develop an understanding of the important environmental health challenges students will face in their professional careers in the areas of community health, rural health, risk assessment and management, injury control, work-place safety, food safety, and protection of the air, water and soil.
3. Develop academic skills that include computer-aided literature searching, investigating a topical area of interest in environmental health, and preparing a presentation and a written report.
4. Prepare for subsequent courses in their graduate curriculum.

## **COURSE COMPETENCIES FOR ENVIRONMENTAL HEALTH**

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

- 1) Explain the association between contemporary human health issues and the biological, chemical and physical factors of the natural environment and occupational settings that adversely affect health.
- 2) Identify the sources, routes of entry, and effects of environmental toxicants.
- 3) Describe the direct and indirect human, ecological and safety effects of major environmental and occupational hazards and agents.
- 4) Describe the general mechanisms of toxicity associated with the absorption, distribution, metabolism and excretion of xenobiotics.

- 5) Describe factors that affect susceptibility to adverse health outcomes following exposure to environmental hazards.
- 6) Explain the current regulatory issues concerned with environmental and occupational health hazards.
- 7) Describe regulatory programs, guidelines and authorities that seek to control environmental health issues.
- 8) Understand environmental risk assessment methods and strategies for effectively communicating risks to the public.
- 9) Describe interventions and control approaches for assessing preventing and controlling environmental hazards that impact human health and safety.
- 10) Identify cases where environmental justice and equity issues arose and what forms of injustice were operative.
- 11) Describe an environmental health problem and how an environmental health practitioner can systematically and holistically address it.
- 12) Apply intervention and control approaches for assessing, preventing and controlling environmental and occupational hazards that impact human health and safety.
- 13) Have a better understanding about the practice and disciplines involved in environmental health like occupational medicine, industrial hygiene, ergonomics, toxicology, and occupational health management.

## **TOPICS AND TIME TABLE**

Please see the provided Time Table for important dates and the topics that are addressed in this course.

## OVERVIEW

This course was created by Drs. Peter Thorne, Patrick O'Shaughnessy, and Gabriele Ludewig of the Department of Occupational and Environmental Health, College of Public Health, The University of Iowa. Course notes created by these professors were compiled into PowerPoint files for presentation during the semester long course: Environmental Health (175:197). This is a web-based version of that course centered around the PowerPoint presentations with additional materials added from web sites.

## COURSE MATERIALS

The information given in this course was developed independent of a textbook. We have never been happy with any text on the subject. Therefore, a textbook is not needed for this course.

Instead of a text, all course materials covered in exams is contained in PowerPoint presentations made available through the ICON software [<http://icon.uiowa.edu>; login to ICON with your Hawk ID and password]. *It this time I recommend to use Internet Explorer as browser, since other software such as Mozilla has some problems with ICON.* Each presentation contains graphic slides and a narrative for each slide to add explanation. You will NOT be able to download the original file made in PowerPoint (\*.PPT files). You will be able to view each presentation as a web-version of each PowerPoint files. These web-based files are NOT printable. Instead, Adobe Acrobat files (\*.PDF files) are available for printing the presentations, if desired.

There are many good websites on Environmental Health topics. Websites we have found to be particularly helpful are included with each Module. I recommend that you at least glance through each website to gain additional background information and/or reinforce material given in the presentations. (Test questions will only be based on course presentations.)

All information related to this course will be delivered via ICON. It's fairly intuitive and I will give sufficient information below on how to access course information but if you need additional help go to the ICON help website: <https://icon.uiowa.edu/support/onlinehelp/students/>

Two basic concepts for navigating this site: (1) The dark green horizontal line contains the primary links for the course site. All course content is in "Content", for example. (2) Information about the course is contained in the first module in "Content". (3) I will periodically post news items in "Course Home" BUT all important information will be emailed to you. The default email for ICON is your university account so check it throughout the semester. AND, it's best to click on links rather than use the back arrow when possible. You can't always go "back" in ICON.

## COURSE INSTRUCTIONS

### MODULES

The material presented in this course is segmented into 3 modules found in "Content". This is not a correspondence course in which all material is given at once and you can complete it whenever you choose. The material is all there, but this course is paced in relation to the time and content of the exams given. Therefore, the modules contain presentations that are to be completed prior to each exam period and so it won't be of much help to get ahead of the exams. You will therefore have excess to later modules at/after the exam for the previous module. The Time Table (see Course Information) will aid in your timing of the material to be learned. For example, it is reasonable to assume that a student taking the lecture-based course would spend 2.5 hours each week in class plus an additional 3 hours per week in preparation, which equals

approximately 6 hours per week on this course. You should therefore budget at least that amount of time per week on this course. The primary difficulty of this course is that there is a HUGE amount of information presented. I recommend that you go through each lecture at least twice to make sure you are familiar with the information given, followed by a thorough review prior to each exam.

To Access Material for This Course:

1. Go to "Content" in the main menu bar.
2. Each of the 3 Modules is divided into
  - a. Presentations (HTML files of the PowerPoint presentations)
  - b. Slides with Text (PDF files of the PowerPoint presentations)
  - c. Slides in larger format (2 per page) but without text
  - c. Websites
  - d. Study Guide
3. To view a presentation in ICON simply click on the presentation name.
4. To view the associated Notes pages for the presentation, click on the associated presentation name.
5. Any applicable websites will be given in a pop-up with links to each site after clicking on the Content link "Module X Websites" (where "X" is 1, 2, or 3).
6. The study guide includes a series of questions for each presentation found at the Content link "Module X Study Guide". These are meant to focus your study of the material. However, they do not necessarily incorporate all you need to know, but you should do well on tests if you can respond to each after going through a presentation.

## QUESTIONS

The most difficult aspect of a web-based course is communication between student and teacher. I have tried several different methods to foster communication but have not come up with anything better (chat rooms for example) than responding directly to written questions. The "Discussions" feature in ICON will allow this. I have turned on a feature to make your questions anonymous but otherwise everyone will be able to read your question and see my reply.

1. Go to "Discussions" in the main menu bar.
2. For the first Module, go to the "Module 1 Questions" "topic" area
3. Click on the "Add Message" button on the far upper right and type a "subject" with the presentation name such as "Ecosystems question", then type your question. Please give the number of the slide, if you have a specific question to the material in the slide or accompanying text.
4. I will respond within a couple of days but will certainly have all questions answered during the week prior to an exam. I will NOT respond to questions posted during an exam period (for obvious reasons).
5. Please DO NOT add your own "Topic"

This method should allow for a running tabulation of questions and answers that can be reviewed prior to each exam for each Module.

If you have **any non-course-content (personal) questions, please email me directly at [gabriele-ludewig@uiowa.edu](mailto:gabriele-ludewig@uiowa.edu)** or, in ICON, go to "Classlist" and then click on the "Staff" tab to find my email address and email me from there.

## EXAMS

Three exams will be given during the semester – one for each Module of course presentations. Examinations will be closed-book, paper tests given by a proctor. The first 2 exams are 90 minutes long and the final is 120 minutes long (although the same number of questions as the

first two). Instructions on how to identify a proctor and take the test from him/her will be (has been) provided in a package from the Center for Credit Programs (CCP). Exams will be sent to the proctor prior to each exam period. A 4-day period has been allocated for taking each exam. However, **local students** must use the CCP to proctor their exam. Over the four-day period, ONLY Monday is available for taking the exam (see ICON course homepage for time and additional information). Out-of-town students must identify a local librarian, teacher, etc. Given that difficulty, they can schedule to take the exam anytime over the 4-day period which includes a weekend. Details are provided in "Examination Details" in "Course Information". This is the only aspect of this course that may constrain your schedule. Please allocate these times **NOW** for test-taking. **Excuses for not being able to take an exam during the time scheduled on the syllabus must be sent to me via email at least 3 weeks prior to the exam.** These excuses must include suggestions for an alternative date (a single day within a week before or after the scheduled time) on which the exam will be taken. Make every effort possible to take the exam on schedule as you would when taking an in-class course. "I want to take a vacation that week" for example, is not an acceptable excuse.

### COURSE ASSIGNMENTS

Students are required to (1) write an about 2000-word article (counted without literature citations) on an environmental health topic of her/his choice AND (2) perform a synopsis/critique for 5 other student papers. Notice that this article represents the only graded "homework" for this course. As such, effort sufficient to produce a high-quality product is expected. Please read the instructions for this provided in "Student Assignment Instructions" in "Course Information" and below.

### GRADING

The following gives the grade percentage breakdown for each item due in this course:

Exam 1 – 27%

Exam 2 – 27%

Exam 3 – 27%

Assignment – 19%

Final letter grades will be based on your overall percent score relative to that of your peers in the class. The average letter grade for this course has been on the border between a B+ and A-. We typically have a wide distribution with grades ranging from a few A+ to B-, and a few who receive less than a B- (typically less than 2 standard deviations from the mean and an obvious "distance" between their score and ones in the B- range). HOWEVER, during the course you will be receiving percentage scores on tests. The historical average for tests in this course is in the low 80's. Given that, and the information above, the cut-off between a B+ and an A- typically falls between a final mean score of 83 and 85. The key word is "typically". I can't guarantee this, although we have never given out an A- to someone with a score less than 80. Likewise we have never given a B- to someone with a mean score in the 60's. Again, typically, grades range from a B- for those in the low 70's to an A+ for those in the high 90's. The moral is: the letter grade resulting from the final percentage average is skewed towards lower percentage scores relative to the "classic" grading criteria.

### DISABILITY

I would like to hear from anyone who has a disability that may require some accommodations for testing or other class requirements so that appropriate arrangements may be made. Please e-mail me at the beginning of the semester if you will need accommodations. Students with a disability should also contact Student Disability Services <http://www.uiowa.edu/%7Esds/>

## UNIVERSITY POLICY AND RULES

### ADMINISTRATIVE HOME

This course is given by the College of Public Health. This means that class policies on matters such as requirements, grading, and sanctions for academic dishonesty are governed by the College of Public Health. Students wishing to add or drop this course after the official deadline must receive the approval of the Associate Dean for Academic and Student Affairs in the College of Public Health. Details of the University policy of cross enrollments may be found at: <http://www.uiowa.edu/~provost/deos/crossenroll.doc>

### ELECTRONIC COMMUNICATION

University policy specifies that students are responsible for all official correspondences sent to their standard University of Iowa e-mail address (@uiowa.edu). Students should check this account frequently.

### ACADEMIC MISCONDUCT

Plagiarism and any other activities when students present work that is not their own are academic fraud. Academic fraud is a serious matter and is reported to the Department Head (DEO, Dr. Peter Thorne) and to the Associate Dean for Education and Student Affairs (Dr. Tanya Uden-Holman). Instructors and DEOs decide on appropriate consequences at the departmental level while the Associate Dean enforces additional consequences at the collegiate level. The worst consequence could be that the student is expelled from the UI and the misconduct is added to the official transcript!

Academic Misconduct includes but is not limited to the following:

- presentation of ideas of others without credit to the source;
- use of direct quotations without quotation marks and without credit to the source;
- paraphrasing without credit to the source;
- participation in a group project which presents plagiarized materials;
- failure to provide adequate citation for material obtained through electronic research;
- downloading and submitting work from electronic databases without citation;
- submitting material created/written by someone else as one's own, including purchased term/research papers;
- copying from someone else's exam, homework, or laboratory work
- allowing someone to copy or submit one's work as his/her own;
- accepting credit for a group project without doing one's share;
- submitting the same paper in more than one course without the knowledge and approval of the instructors involved;
- using notes or other materials during a test or exam without authorization.

### CONCERNS ABOUT FACULTY ACTIONS

Students who have a concern about a faculty action should first address the issue with the instructor, then the course director, and then the DEO. Students may also contact the Associate Dean for Education and Student Affairs in the College of Public Health. Another resource for students is the Office of the University Ombudsperson. If a complain cannot be resolved at the departmental and/or collegiate level, students may file a formal complaint utilizing the procedure specified in the [Operations Manual \(II-29.7\)](#)

## UNDERSTANDING SEXUAL HARASSMENT

Sexual harassment subverts the mission of the University and threatens the well-being of students, faculty, and staff. All members of the UI community have a responsibility to uphold this mission and to contribute to a safe environment that enhances learning. Incidents of sexual harassment should be reported immediately. See the UI [\*Comprehensive Guide on Sexual Harassment\*](#) for assistance, definitions, and the full University policy.

## REACTING SAFELY TO SEVERE WEATHER

In severe weather, class members should seek appropriate shelter immediately, leaving the classroom if necessary. The class will continue if possible when the event is over. For more information on Hawk Alert and the siren warning system, visit <http://hawkalert.uiowa.edu/>