



**SYLLABUS**

**Fundamentals of Industrial and Environmental Health CPH 484/584  
Fall 2017**

**Time:** Monday, 9-11:50am  
**Location:** Drachman Hall, Room A120

**Instructor and Contact Information:** Stephanie Griffin, Ph.D. CIH  
MEZCOPH/CEP  
Office: Drachman Hall, Room A241  
Phone: (520) 626-9363  
Email: [scgriffin@email.arizona.edu](mailto:scgriffin@email.arizona.edu)

**Office Hours:** Wednesday and (most) Fridays\*, 10am-12pm or by appointment  
\*students will be notified in class, on D2L and/or by email if Friday office hours need to be rescheduled to accommodate other meetings

**Teaching Assistant:** David Contreras  
Drachman Hall, 2<sup>nd</sup> floor Drachman Hall, cubicle #9  
Email: [rdcontreras@email.arizona.edu](mailto:rdcontreras@email.arizona.edu)

**TA Office Hours:** Wednesdays, 1:00-3:30pm

**Catalog Description:** This course introduces students to physical, chemical and biological hazards found in the environment and health risks associated with workplace and community exposure to them. Risks to special populations and mechanisms of reducing or controlling these risks are discussed.

**Course Prerequisites:** Undergraduates – advanced standing; Graduate students – none. For all students, it is recommended that you have taken a college level general chemistry class (at least at the Chem 103 level), introductory statistics (e.g., CPH 376), and algebra class (e.g., Math 112).

**Course Learning Objectives:** At the end of this course, students will be able to:

1. Recognize the major types of physical, chemical, and biological exposure agents capable of inducing disease in the public and in specific occupational populations.
2. Understand the basic strategies for evaluating or measuring airborne and waterborne exposure agents and relating these measurements to permissible exposure and other regulatory and recommended limits.
3. Describe general principles of safety, workplace safety interventions and environmental pollution mitigation.
4. Appreciate techniques for controlling exposures to toxic materials and pathogens.
5. Have a general understanding for how to apply industrial hygiene and environmental health principles to a workplace or other environment.

**MPH Competencies Addressed:**

<b>A. ANALYTICAL SKILLS:</b>
A-1. Defines a problem
A-2. Determines appropriate uses and limitations of data
A-3. Selects and defines variables relevant to defined public health problems

A-4. Evaluates the integrity and comparability of data and identifies gaps in data sources
A-5. Understands how the data illuminates ethical, political, scientific, economic, and overall public health issues
A-6. Understanding basic research designs used in public health
A-7. Makes relevant inferences from data
<b>B. COMMUNICATION SKILLS:</b>
B-1. Communicates effectively both in writing and orally (unless a handicap/online setting precludes one of those forms of communication)
B-2. Interpreting and presenting accurately and effectively demographic, statistical, and scientific information for professional and lay audiences adapting and translating public health concepts to individuals and communities
B-3. Soliciting input from individuals and organizations
B-5. Leading and participating in groups to address specific issues, including ability to work in teams, span organizational boundaries, and cross systems
B-6. Using all types of media to communicate important public health information
<b>E. BASIC PUBLIC HEALTH SCIENCE SKILLS:</b>
E-2. Understanding research methods in all basic public health sciences
E-3. Applying the basic public health sciences including behavioral and social sciences, biostatistics, epidemiology, environmental public health, and prevention of chronic and infectious diseases and injuries

**Course Notes:** You are expected to take your own notes on the readings/videos/podcasts you will complete outside of class. It is also recommended that you take notes in class, during discussions and group activities. If feasible, the results of discussions/activities will be posted on D2L following the class. Additional content or printed material may be distributed in class. These materials will be posted on the D2L site under the appropriate class date/subject heading.

**Text/Readings:** The textbook for the course is *Fundamentals of Industrial Hygiene 6<sup>th</sup> Ed.*, published by the National Safety Council. Other assigned readings will be provided as well, usually on D2L. Any required readings not on the syllabus will be announced and made available a week in advance.

### Course Requirements:

- 1) *Active learning* – This is not a lecture-based course. You will be expected to come to class prepared, having already read the assigned material (or watched any assigned videos or listened to any assigned podcasts), and with your homework or writing assignments completed, to the best of your ability. We will spend most of our in-class time engaged in discussions, doing activities and group work that will reinforce what you learned in the readings/videos/podcasts. If you are expecting to sit quietly in your chair and listen to me speak for 3 hours a week, you may find yourself frustrated and disappointed.
- 2) *Community* - Your fellow students will be relying on you to be prepared and not hold them back in their learning process. Your part of the bargain in this learning environment is to bring your best effort to this course. My part of the bargain is to provide you with interesting, inspiring and exciting learning opportunities, and to help create an environment that helps you reach your potential. Please consider dropping this course if you are not prepared to give it your best. If, however, you are ready to learn and engage with others in a very interesting subject, I believe you will find your experience in this course very rewarding.
- 3) *Perspective* – This course is designed to train industrial hygienists (IH) and environmental health (EH) professionals. While this might not describe you (yet), you will use this perspective when completing assignments and during in class discussions.
- 4) *Time investment* – The “rule of thumb” for college courses is that students will spend 3-4 hours on course work for each hour of in-class instruction. We will meet for approximately 45 required hours. You

will spend an additional 135 to 180 total hours of your own time preparing for class. That averages out to approximately 8 to 11 hours per week, outside of class.

You are expected to come to class prepared, respond to questions and participate in discussions, submit homework and assignments on time, take exams on the specified dates, and successfully complete any work given during scheduled classes. Changes and other information about the class will be mailed to your University of Arizona e-mail address through D2L.

**Grading Scale/Student Evaluation and Policies:**

Final grades will be based on the following point system:

<b>Task</b>	<b>Potential Points</b>	<b>% of Grade</b>
<b>Undergraduate students</b>		
"Reading reflections" and in class reflections x 12 (see note below!)	30	30%
"Get to Know a Worker" assignment	10	10%
"The ME in EnvironMENTal Health" assignment	10	10%
Current Topics Paper	10	10%
3 Exams @ 10 points each	30	30%
Homework @ 2.5 points each x 4	10	10%
Total points	100	
<b>Graduate students</b>		
All of the above +	100	80%
Scientific article review	10	8%
Quantitative IH assignment	15	12%
Total points	125	
Bonus (TBD)	5	5% for 484 4% for 584

Note: The University's Final Exam regulations can be found here:

<http://www.registrar.arizona.edu/staff/courses/final-exams?audience=staff&cat1=10>

**Note – The importance of “Reading reflections”**

A total of 12 “Reading reflections” will be due at the start of class. The due dates are noted on the course schedule below with an “RR”. Students are expected to complete the assigned readings (watch the assigned video or listen to the assigned podcast) and submit the RR in the course D2L dropbox prior to class. **You are also expected to bring a hard copy to class**. These approximately two-page reflections will be used to inform group discussions and activities.

A total of six students will be selected randomly at the start of each class; these student’s responses to one of the six questions (outlined below) will be shared with the class by the instructor and/or TA. If you are not prepared to read your response, you will not receive credit for that RR. The instructor and TA will also review all the Reading Reflections to ensure they cover the assigned material. Obviously if, upon review, we discover your Reflection does not apply to the assigned material you will not receive credit. Each Reflection is worth 2.5 points for a total of 30 points over the semester.

At the end of each class, you will be presented with a final “reflection question” that will integrate the assigned reading with our in class activity. The grade for this reflection question will be part of your grade for the Reading Reflection and will be used to take attendance.

Here is the important part: **IF YOU FAIL TO COMPLETE THREE OR MORE (AND/OR RECEIVE A SCORE OF LESS THAN 1.5/2.5 POINTS FOLLOWING THE RUBRIC) READING REFLECTIONS YOU WILL RECEIVE 0/30 – ZERO POINTS TOWARD YOUR FINAL GRADE! – FOR THE READING REFLECTIONS. THAT’S 30% OF YOUR GRADE (484) (24% FOR 584 STUDENTS).** For undergrads, this means the best grade you can receive for this course in this scenario is a “C”. Please take this seriously.

**Format for the Reading Reflections:**

Single space, Times New Roman 11 or 12 point font, 1 inch margins. Minimum length = 1 page, suggested maximum = 3 pages.

Top of page: Your name

Due date

Name of assigned reading/video/podcast

(Max = 1 inch of white space between header and text)

- 1) Describe briefly what was covered (outline form is fine here) (0.4 points)
- 2) What did you find most interesting, and why? (0.3 points)
- 3) How is this relevant to your life, or the life of others close to you (e.g., family, friends)? (0.3 points)
- 4) How would you use this information as an IH or EH professional to protect the health and safety of workers or the public? (0.4 points)
- 5) What would you like to explore further related to this topic? (0.3 points)
- 6) Create a possible exam question related to the assigned material. (0.3 points)
- 7) In-class reflection question (0.5 points)

**Khan Academy review of basic science topics:**

Students will utilize the links below to complete a review of several fundamental math and science topics related to IH and EH, using the Khan Academy website. **We will not be covering this material in class but you are expected to be comfortable with these topics.** The deadline for this review is Monday, September 11. Here is the description from their website (<https://www.khanacademy.org/about>):

*A personalized learning resource for all ages.*

*Khan Academy offers practice exercises, instructional videos, and a personalized learning dashboard that empower learners to study at their own pace in and outside of the classroom. We tackle math, science, computer programming, history, art history, economics, and more. Our math missions guide learners from kindergarten to calculus using state-of-the-art, adaptive technology that identifies strengths and learning gaps. We’ve also partnered with institutions like NASA, The Museum of Modern Art, The California Academy of Sciences, and MIT to offer specialized content.*

Significant Figures	<a href="https://www.khanacademy.org/math/arithmetic-home/arith-review-decimals/arithmetric-significant-figures-tutorial/v/significant-figures">https://www.khanacademy.org/math/arithmetic-home/arith-review-decimals/arithmetric-significant-figures-tutorial/v/significant-figures</a> 4 videos, or skip to skill assessment
Logarithms	<a href="https://www.khanacademy.org/math/algebra2/exponential-and-logarithmic-functions/introduction-to-logarithms/v/logarithms">https://www.khanacademy.org/math/algebra2/exponential-and-logarithmic-functions/introduction-to-logarithms/v/logarithms</a>
Mole and Avogadro’s number	<a href="https://www.khanacademy.org/science/health-and-medicine/lab-values/v/the-mole-and-avogadro-s-number">https://www.khanacademy.org/science/health-and-medicine/lab-values/v/the-mole-and-avogadro-s-number</a>
Molecular weight	<a href="https://www.khanacademy.org/science/chemistry/chemical-reactions-stoichiome/empirical-molecular-formula/v/molecular-mass-and-molecular-weight">https://www.khanacademy.org/science/chemistry/chemical-reactions-stoichiome/empirical-molecular-formula/v/molecular-mass-and-molecular-weight</a>
Ideal gas and the ideal gas law, Boltzmann’s constant (R) (four values), concentration of	<a href="https://www.khanacademy.org/test-prep/mcat/physical-sciences-practice/physical-sciences-practice-tut/e/gas-phase---passage-2">https://www.khanacademy.org/test-prep/mcat/physical-sciences-practice/physical-sciences-practice-tut/e/gas-phase---passage-2</a> (read the lesson and answer the question)  <a href="https://www.khanacademy.org/science/chemistry/gases-and-kinetic-molecular-theory">https://www.khanacademy.org/science/chemistry/gases-and-kinetic-molecular-theory</a> (complete the 10 videos under “Ideal Gas Equation”)

a gas and molar volume	<a href="https://www.khanacademy.org/science/physics/thermodynamics">https://www.khanacademy.org/science/physics/thermodynamics</a> (complete the 6 videos under "Temperature, kinetic theory and the ideal gas law")
Density and specific gravity	<a href="https://www.khanacademy.org/science/physics/fluids/density-and-pressure">https://www.khanacademy.org/science/physics/fluids/density-and-pressure</a> (5 videos)
Solubility (what factors affect solubility?)	<a href="https://www.khanacademy.org/science/chemistry/states-of-matter-and-intermolecular-forces/states-of-matter/v/solubility">https://www.khanacademy.org/science/chemistry/states-of-matter-and-intermolecular-forces/states-of-matter/v/solubility</a>

**References:** Several of the assignments require you to use references. Wikipedia is an acceptable "first look" resource but for written assignments, do not use Wikipedia as a primary source. You must go deeper, preferably using The University of Arizona library resources.

**Due Dates for assignments and Exam Dates are designated on the syllabus.** Do not rely on dropbox dates and times. These are sometimes inaccurate. All late assignments will be penalized 10% per day, beginning at the end of the class on the day the assignment is due. For example, if the assignment is due in class on a Monday, it will be marked down 10% if it is turned any time Monday after class. Please contact Dr. Griffin in advance if you know you will be absent to arrange for an alternative time to turn in the assignment. Exams must be completed during the specified time. There will be no make-up exams.

**400/500 Co-Convened Courses:** Students enrolled in 584 will be expected to be more analytical in their assignments and to think more critically about the questions, beyond what has been presented in class. Additionally, 584 students will locate and complete a review of a scientific paper related to the "Current Topics" paper. Students in 584 will be expected to be able to apply the information they learn in class and in readings to different situations.

**Class Attendance/Participation:** Students are expected to attend every class meeting and participate in class discussions and activities. Attendance will be taken using the in-class Reflection Questions (see above) which are graded. The instructor may call on people by name (you can always volunteer and end the suspense). Students will participate in small group discussions on a regular basis.

The UA's policy concerning class attendance, participation, and administrative drops is available at: <http://catalog.arizona.edu/policy/class-attendance-participation-and-administrative-drop>

The UA policy regarding absences for any sincerely held religious belief, observance or practice will be accommodated where reasonable, <http://policy.arizona.edu/human-resources/religious-accommodation-policy>.

Absences pre-approved by the UA Dean of Students (or Dean Designee) will be honored, <http://deanofstudents.arizona.edu/>

### **Additional Information:**

**Communications:** You are responsible for reading emails sent to your UA account from your instructor and the announcements that are placed on the course web site. Information about readings, news events, your grades, assignments and other course related topics will be communicated to you with these electronic methods. The official policy can be found at: <https://www.registrar.arizona.edu/personal-information/official-student-email-policy-use-email-official-correspondence-students>.

**Disability Accommodations:** It is the University's goal that learning experiences be as accessible as possible. If you anticipate or experience physical or academic barriers based on disability or pregnancy, please let me know immediately, so that we can discuss options. You are also welcome to contact the Disability Resources (520-621-3268) to establish reasonable accommodations (as it is very important that you be registered with the DRC). For additional information on Disability Resources and reasonable accommodations, please visit <http://drc.arizona.edu/students>.

**Academic Integrity:** Students are encouraged to share intellectual views and discuss freely the principles and applications of course materials. However, graded work/exercise must be the product of independent effort unless otherwise instructed. Students are expected to adhere to the UA Code of Academic Integrity, available through the office of the UA Dean Students: <http://deanofstudents.arizona.edu/policies-and-codes/code-academic-integrity>.

**Classroom Behavior:** The goal is to create a learning environment conducive to all students reaching their potential. In order to achieve this goal, we are all expected to treat each other with respect and to honor everyone's inherent dignity. This is a fun, safe environment to try out new skills, share ideas and express opinions. Teasing or harassing others will not be tolerated.

Students are expected to be familiar with the UA Policy on Disruptive Student Behavior in an Instructional Setting found at: <http://policy.arizona.edu/education-and-student-affairs/disruptive-behavior-instructional-setting>.

**Threatening Behavior Policy:** The UA Threatening Behavior by Students Policy prohibits threats of physical harm to any member of the University community, including to one's self, <http://policy.arizona.edu/education-and-student-affairs/threatening-behavior-students>

**Nondiscrimination and Anti-harassment Policy:** The University of Arizona is committed to creating and maintaining an environment free of discrimination, <http://policy.arizona.edu/human-resources/nondiscrimination-and-anti-harassment-policy>

**UA Smoking and Tobacco Policy:** The purpose of this Policy is to establish the University of Arizona's (University) commitment to protect the health of University faculty, staff, students, and visitors on its campuses and in its vehicles, <http://policy.arizona.edu/ethics-and-conduct/smoking-and-tobacco-policy>.

**Syllabus Changes:** Information contained in the course syllabus, other than the grade and absence policies, may be subject to change with reasonable advance notice, as deemed appropriate by the instructor.

**Grievance Policy:** Should a student feel he or she has been treated unfairly, there are a number of resources available. With few exceptions, students should first attempt to resolve difficulties informally by bringing those concerns directly to the person responsible for the action, or with the student's graduate advisor, Assistant Dean for Student and Alumni Affairs, department head, or the immediate supervisor of the person responsible for the action. If the problem cannot be resolved informally, the student may file a formal grievance using the Graduate College Grievance Policy found at: <http://grad.arizona.edu/academics/policies/academic-policies/grievance-policy>.

**Grade Appeal Policy:** <http://catalog.arizona.edu/2015-16/policies/gradappeal.htm>

**Telephone and Computer Use:** Computers, tablets, cell phones, etc. use will be permitted during class for the purposes of locating information for discussions and activities when appropriate (the instructor will tell you when), *provided the technology is being used to aid in the learning process*. Use for entertainment or unrelated activities (email, games, social media, Youtube, TV/movies, etc.) is prohibited during class time. Appropriate use will be passively monitored by the instructor and TA. This policy is

subject to revision if the technology privilege is consistently misused. Please turn your cell phone on vibrate or silent mode to avoid unnecessary interruption.

**Plagiarism:** It is not ALL about citation! What counts as plagiarism?

- Copying and pasting information from a web site or another source, and then revising it so that it sounds like your original idea.
- Doing an assignment/essay/take home test with a friend and then handing in separate assignments that contain the same ideas, language, phrases, etc.
- Quoting a passage without quotation marks or citations, so that it looks like your own.
- Paraphrasing a passage without citing it, so that it looks like your own.
- Hiring another person to do your work for you, or purchasing a paper through any of the on- or off-line sources. Identified cases of plagiarism will be referred to the Dean of Students as an academic violation and a 0 grade will be awarded for the assignment. You may be expelled for violations of the code of conduct and plagiarism is one such violation.

**COURSE SCHEDULE:**

Session	Month	Date	Unit/Topic	Before Class Assignment – all students	Additional Before Class Assignment - 584	Due / Exam
1	Aug	21	Course Overview & Introduction  Introductory exercise	<a href="http://www.library.arizona.edu/help/tutorials/plagiarism/">http://www.library.arizona.edu/help/tutorials/plagiarism/</a>  Plog Chapter 1  ABIH video: <a href="https://youtu.be/M-7FXpWfxrY">https://youtu.be/M-7FXpWfxrY</a>	Plog Chapter 24	
2	Aug	28	Intro to Air Contaminants - The lungs  Gas & vapor	Plog Chapter 2, 7 Plog Chapter 15, page 511 (“Industrial Hygiene Calculations”) through 520 (“Summary”)  CH1 – Why Model - IAQ 1 (D2L) CH2 – IA Systems - IAQ 2 (D2L)	<u>Optional</u> : Ramachandran Chapter 1 & 2	RR1
3	Sep	4	Labor Day – no class			
4	Sep	11	Gas & vapor  Dust, etc.	CH5 – Box models - IAQ 3 (D2L)  Plog Chapter 16 pages 523 (“Types of Air Sampling”) through 528 (“Diffusion (Passive Samplers”)  Plog Chapter 17 pages 547 (“Introduction”) through 554 (“Mercury Monitors”)  Plog Chapter 8, pages 171 (“Introduction” through 200 (“Dual Phase Monitoring”) (you may skip the section on Engineered Nanoparticles, pages 190-195)	<u>Optional</u> : Plog Chapter 17 pages 554-568  <u>Optional</u> : Ramachandran Chapters 6 & 7	RR2  Basic math and science review – Khan Academy
5	Sep	18	Dust, etc.  Air wrap-up	Plog Chapter 16 pages 529 (“Collection devices for particles”) through 544 (“Summary”)  Plog Chapter 18, Intro and 579 (“Industrial Hygiene Control Methods”) through 590 (“Respiratory Protective Devices”)  Deadly Dust video, <a href="https://www.youtube.com/watch?v=DndAO32Bdvw">https://www.youtube.com/watch?v=DndAO32Bdvw</a>  TLV Development article (on D2L)	<u>Optional</u> : Ramachandran Chapter 9  <u>Optional</u> : Ramachandran Chapter 10	RR3  Homework 1

6	Sep	25	(S. Newton) Dermal	Plog Chapter 3  Occupational Skin Disease video, <a href="https://www.youtube.com/watch?v=66zMbGOHTKE">https://www.youtube.com/watch?v=66zMbGOHTKE</a>		RR4  Homework 2
7	Oct	2	(K. Carsten) Physical hazards – Radiation	Plog Chapter 10, Introduction and sections: <ul style="list-style-type: none"> <li>• <i>Ionizing Radiation</i></li> <li>• <i>Ionizing Radiation Sources</i></li> <li>• <i>Radiation vs Radioactivity</i></li> <li>• <i>Different Types of Radiation</i></li> <li>• <i>Radioactivity</i></li> <li>• <i>The Effects of Radiation on Humans</i></li> <li>• <i>Detection and Measurement of Radiation</i></li> <li>• <i>Protective Measures in Radiation Safety</i></li> </ul> Plog Chapter 11 pages 285 (Introduction) through 299 (“Controls and Shielding”)  Radiation calculations (provided on D2L)		Midterm 1  RR5
8	Oct	9	(S. Newton) Physical hazards – Noise	Plog Chapter 4 (all) and 9, pages 223 (Introduction) through 238 (“Noise dosimeters”)  Noise calculations (provided on D2L)	<u>Optional</u> : Plog Chapter 9, pages 239 (“Sound Surveys”) through 258 (“Summary”)  <u>Optional</u> : Berger Chapter 7	RR6
9	Oct	16	Ergonomics	Plog Chapter 13, pages 363 (Introduction) through 372 (“Fatigue”) and section, <i>Office (Computer) Workstations</i>  Video - Ergonomics Awareness: For Employees and Supervisors - Long Version <a href="https://www.youtube.com/watch?v=zsHn-AIfAWk">https://www.youtube.com/watch?v=zsHn-AIfAWk</a>  Video – Office Ergonomics - The Quick and Fun Guide! <a href="https://www.youtube.com/watch?v=ZCIZf9UhNFI">https://www.youtube.com/watch?v=ZCIZf9UhNFI</a>		Homework 3  RR7
10	Oct	23	(S. Newton) Physical hazards – Temperature  "Get to know a worker" discussion; Exam review	Plog Chapter 12, pages 335 (Introduction) through 355 (“Hot Surfaces, Hot Air and Respirators”)  Thermal stress calculations (provided on D2L) Mid-semester course evaluation survey  Brief video on construction workers and work/rest cycles:	<u>Optional</u> : Plog Chapter 12, “Cold Stress”	RR8  "Get to know a worker" assignment

				<a href="https://www.yaleclimateconnections.org/2017/08/a-s-climate-heats-up-construction-workers-fight-for-breaks/">https://www.yaleclimateconnections.org/2017/08/a-s-climate-heats-up-construction-workers-fight-for-breaks/</a>	
	Oct	27	HAZWOPER Part 1 Drachman Hall A114 8am-3pm	Plog Chapter 23 page 699 (“Chemical-Protective Clothing”) through 706 (“Summary”)	
11	Oct	30	(CAPT D. Williams) Intro to EH Food & Fuel	Mother Earth News article, <a href="http://www.motherearthnews.com/natural-health/health-hazards-factory-farms-zmaz09fmzraw.aspx">http://www.motherearthnews.com/natural-health/health-hazards-factory-farms-zmaz09fmzraw.aspx</a> NY Times article, <a href="http://www.nytimes.com/2009/10/04/health/04meat.html?_r=0">http://www.nytimes.com/2009/10/04/health/04meat.html?_r=0</a> TAL show, <a href="http://www.thisamericanlife.org/radio-archives/episode/440/game-changer">http://www.thisamericanlife.org/radio-archives/episode/440/game-changer</a>	MIDTERM 2 RR9
	Nov	3	HAZWOPER Part 2 Drachman Hall Room 114 8am – 3pm		
12	Nov	6	Air, bugs & poop Biological hazards	Under the Dome documentary (1:45) <a href="https://www.youtube.com/watch?v=T6X2uwlQGQM">https://www.youtube.com/watch?v=T6X2uwlQGQM</a> Radiolab show, <a href="http://www.radiolab.org/story/kill-em-all/">http://www.radiolab.org/story/kill-em-all/</a> Radiolab show, <a href="http://www.radiolab.org/story/poop-train/">http://www.radiolab.org/story/poop-train/</a> Plog Chapter 14, sections: Biological Safety (pg 412) Biological Hazard Identification (pg 413-421) Risk Assessment (pg 421-425) Current Topics in Biosafety (pg 441-465) Role of IH in Biosafety (pg 466)	RR10
13	Nov	13	(S. Newton) Toxicology Risk Assessment	Plog Chapter 6 Risk Assessment Chapter 4 (D2L) Other materials as assigned by Ms. Newton (will be	RR11

				posted to D2L)		
14	Nov	20	Regulations	<p>Plog Chapter 30</p> <p>Frumkin Chapter 30</p> <p>Public Integrity article:  <a href="http://www.publicintegrity.org/2015/07/06/17558/after-44-years-halting-progress-workplace-disease">http://www.publicintegrity.org/2015/07/06/17558/after-44-years-halting-progress-workplace-disease</a></p> <p>Worker's compensation coverage for undocumented workers:  <a href="http://www.npr.org/2017/08/16/543650270/they-got-hurt-at-work-then-they-got-deported">http://www.npr.org/2017/08/16/543650270/they-got-hurt-at-work-then-they-got-deported</a></p>		RR12
15	Nov	27	Environmental Health and YOU!	<p>Klepeis (1999)</p> <p>Wallace (1997)</p>		<p>Homework 4</p> <p>584 ONLY - Quantitative IH Assignment</p> <p>The "ME in Environmental Health" assignment (end of class)</p>
16	Dec	4	<p>Current topics</p> <p>Final exam prep; wrap-up</p>			<p>ALL: "Current Topics" paper</p> <p>584 Only - Scientific Article Review paper</p>
	Dec	12				FINAL

**FINAL EXAM – Our designated final exam time is Tuesday, December 12, 10:30 am – 12:30 pm in A120. Although it is unlikely that we will meet in person for the exam, I'm asking you to please hold this time in your calendar until I finalize our plans for the final exam.**