

**University of Florida (DRAFT)**  
**College of Public Health & Health Professions Syllabus**  
**PHC 4320: Environmental Health Concepts in Public Health (3 credit hours)**  
Fall: 2019  
Course Day and Time: Wednesdays, 8:30AM – 11:30AM  
Delivery Format: In person supported via e-learning in Canvas  
Room HPNP G-103

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Instructor Name: Eric Coker, PhD  
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Email Address: [eric.coker@phhp.ufl.edu](mailto:eric.coker@phhp.ufl.edu)  
Office Hours: Wednesdays 11:30am-12:30pm AND Thursdays 9am-10am

Teaching Assistants: Danielle Cucchiara  
Email Address: [dlivey@ufl.edu](mailto:dlivey@ufl.edu)

Preferred Course Communications: The “Inbox” in Canvas will be used for all email correspondence. Instructors and TAs will not be responsible for emails sent their “UFL” email addresses.

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#### **Prerequisites**

None

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#### **PURPOSE AND OUTCOME**

##### **Course Overview**

This course is a survey of major topic areas of Environmental Health. It will examine sources, routes, media, and health outcomes associated with biological, chemical and physical agents in the environment. It will cover how these agents affect disease, water and air quality, food safety, and land resources in community and occupational settings. The course will introduce the students to the economic context and touch on legal frameworks associated with environmental health issues and public health.

##### **Course Objectives and/or Goals**

Upon completion of this course, students will be able to:

1. Define the major sources of biological, chemical and physical agents found in water, air, soil, and food
2. Understand chemical and pathogen routes of exposure, toxic mechanisms of action, and health impacts
3. Describe the tools that are used to analyze health impacts of environmental exposures, such as toxicology, exposure assessment, and epidemiology
4. Describe the role of risk assessment paradigms in creating safe environments, including target populations exposed to hazardous agents
5. Describe methods used to detect, manage, control, or remove health hazards
6. Understand the existing regulatory framework and policy for controlling environmental and occupational agents

##### **Relation to Program and Learning Outcomes**

Competencies primarily gained in this course

1. Monitor health status to identify and solve community health problems
2. Diagnose and investigate health problems and health hazards in the community using an ecological framework
3. Inform, educate, and empower people about health issues
4. Use laws and regulations that protect health and ensure safety
5. Communicate effectively with constituencies in oral and written forms

Competencies reinforced in this course

1. Mobilize community partnerships and action to identify and solve health problems
2. Develop policies and plans that support individual and community health efforts
3. Evaluate effectiveness, accessibility, and quality of personal and population-based health services
4. Conduct research for new insights and innovative solutions to health problems

### Instructional Methods

1. Lectures: are for general orientation. Students are responsible for all the material presented in the course and assigned readings. This will be the main source of content in this course.
2. Readings and Resources. In addition to the required text, supplementary readings and resources will be posted in the course. The reading list may be supplemented during the course.
3. Assessments: A variety of assessments will be used in this course, including but not limited to presentations, discussions, written assignments and exams.

### What is expected of you?

You are expected to attend weekly lectures and complete all readings, assignments, and exams. Additionally, you are expected to actively engage in the course throughout the semester. Your participation fosters a rich course experience for you and your peers that facilitate overall mastery of the course objectives.

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### DESCRIPTION OF COURSE CONTENT

This course is taught as a series of modules, each covering one specific aspect of environmental health. Each module may contain lectures, external links, videos, discussions and required readings as well as assignments. You are responsible for all course content regardless of the format. The topical Outline/Course Schedule below details the dates of content modules and assignments. Assignments and Exams are also listed.

### Getting Started

1. Visit <http://lss.at.ufl.edu> and login to e-Learning in Canvas using your Gatorlink ID and password.
2. Find our course website. It will be listed as PHC4320: Environmental Health Concepts in Public Health, Fall 2019.
3. Complete the "Getting Started" Module under the Modules Tool (left menu). This will prompt you to download and review the syllabus, review the materials on plagiarism, and complete the syllabus quiz.

The remainder of the course materials will be locked and unavailable to you until you have completed the "Getting Started" Module. You MUST earn a 100% score on this quiz in order for the course materials to open in the course site. If you do not receive a 100% score, please review the feedback on your quiz attempt and retake as soon as possible. This is an important element to insure that all students are aware of the curriculum requirements for this course. If you have ANY difficulty with this quiz, please send an email in the course to using the Canvas "Inbox" as soon as possible.

### Required Course Materials and Technology

Text book (optional):

*Environmental Health, 4th edition*

Dade W. Moeller Harvard University Press, 2011 ISBN 9780674047402

e-Learning in Canvas site:

There will be an online site for this course in Canvas, the learning management system supported by the University. Log in at <https://lss.at.ufl.edu/> and go to course site for PHC6313: Environmental Health Concepts in Public Health, Fall 2018.

Here, I will post the syllabus, lecture presentations, details of each assignment, and allow for communication between the students and course instructor and TA. You will also turn in assignments through this site. Once the course begins, all electronic communication will take place through the e-Learning in Canvas site. This includes all emails. This will eliminate any issues with students not getting emails due to connection problems. It will be your responsibility to check the site on a routine basis to keep up with announcements, emails, and course modifications.

For technical support related to course materials and links, please contact me and the online course coordinator (Truly Hardemon; hardemont@phhp.ufl.edu).

For technical support for this e-Learning in Canvas, please contact the UF Help Desk at:

- (352) 392-HELP - select option 2
- [Learning-support@ufl.edu](mailto:Learning-support@ufl.edu)
- [helpdesk@ufl.edu](mailto:helpdesk@ufl.edu)
- <https://lss.at.ufl.edu/help.shtml>

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## ACADEMIC REQUIREMENTS AND GRADING

### General information

Assignments are to be turned in as a Word document or PowerPoint file as directed, unless otherwise indicated. They will be returned to you with comments. If you have unexpected issues with Canvas, you may email the assignment to the course TA and professor directly. Assignments are normally intended as individual projects unless otherwise directed. Shared work may be treated as a form of plagiarism. Assignments may be required to be submitted via Turnitin in this course (this will be done automatically in the Canvas Assignment). This tool will pick up any passages in students' work that come from another source. Be sure to adequately cite your sources/references for these assignments to avoid plagiarism (see format below).

The Canvas assignment tool will notify you confirming the submission of your assignment. PLEASE check your UFL email at <http://webmail.ufl.edu> on a regular basis for these and other email notices from the course site. If you do not receive an email confirmation within 2 hours of submission, please return to the site and resubmit your assignment. It is a student's responsibility to verify that they turn in assignments on time and that they turn in the CORRECT assignment attachment. Please take a few moments to open your submitted attachment and verify that you have submitted the correct file and that the file is not corrupted or in the wrong format.

You will be graded in the course through the use of 5 different learning assessments which are as follows:

### **1. Written Assignments (250 points total)**

**There will be 5 written and graded assignments (50 points each; Total 250 points).** Typically these will be one to two single-spaced pages long. Detailed instructions will be provided with each assignment.

Assignment 1 is an ungraded assignment to assess what everyone's pre-course perceptions about toxic chemicals and compounds are. It can be found in the "Assignment" tool. In the assignment you will find a link to a quick survey. Please complete this as soon as possible, but by August 24th.

Assignments 2 - 6 are to be turned in as a Word document in the Canvas Assignment tool, unless otherwise indicated. They will be returned to you with comments. If you have unexpected issues with Canvas, you may email the assignment to the course TA and professor directly. Assignments are normally intended as individual projects unless otherwise directed. Shared work may be treated as a form of plagiarism. Assignments may be required to be submitted via Turnitin in this course (this will be done automatically in the Canvas Assignment). This tool will pick up any passages in students' work that come from another source. **Be sure to adequately cite your sources/references for these assignments to avoid plagiarism (see format below).** Please check your Turnitin report by going back to the assignment and clicking on the colored box icon in the assignment (you want to achieve a blue or green indication) – anything yellow, orange or red should be adjusted and resubmitted BEFORE the assignment deadline. So, it is recommended that you submit EARLY to enable you to utilize this option of resubmission. Resubmissions after the due date may be subject to a late submission penalty.

### **2. Debate Written Report (100 points total)**

**Each student will complete a written report after viewing (either in person, streaming, or in recorded video format as required) a debate on an environmental health topic.** The debates are conducted by the students in the graduate version of this course (PHC 6313). For this assignment, each student will independently prepare and submit approximately a 2-page, 11 font double-spaced word essay describing their initial stance on the debate topic they just viewed, and then their stance after viewing the debate, and why. Each student must explain why the arguments or the facts that were introduced to you either changed your stance or reinforced it. Make sure to explicitly include the

facts or events that swayed or solidified your decision. A more detailed description of the assignment and grading rubric can be found on Canvas. You are required to complete this assignment for just 1 of the 6 debates from the semester. Each student may choose which debate they will write reports for.

### **3. In the News Assignment (100 points total)**

**Each student will be required to submit one 'In the News' assignment during the semester on Canvas.** For this assignment, each student will be assigned to a topic area at the beginning of the semester, such as 'toxicology' or 'infectious disease'. You will perform a search to identify a current news story that relates to this topic. The 'news' can be positive, negative, changes in policy, public concerns, etc. You may use general public news forums (TV, web, newspaper); however, please make sure that the sources are credible.

This assignment will consist of two components:

**(1) You are to prepare 1 Powerpoint slide that describes the event.** This slide can be visual – with pictures, embedded video links, etc. Please include a link to the article using appropriate citation format (see "In the news" assignment description on Canvas) on the slide. This will be briefly presented in class by the student, followed by a question and answer section, which will take no more than 3 minutes per student.

**(2) You are to prepare 1-2 page double-spaced (11-point font; one page minimum; two page maximum) description** that provides the following information plus references:

- a. Describe the 'news' item in brief and how it relates to the assigned category (i.e. toxicology) and environmental health.
- b. Is the news projecting or emphasizing a positive influence on public health or a concern? What evidence do they have?
- c. What do the experts say should be done about it? Is there controversy?

An example 'In the News' assignment will be posted on Canvas. Make sure to cite your references in APA format at the end of your written document (not included in the 2-page limit). The due date for this assignment will be based on the topic you are assigned as due dates are associated with the specific topic.

### **4. In the News Peer Report Assignment (150 points total)**

**Each student will be required to submit three 'In the News' Peer Report Assignments during the semester on Canvas (50 points each; 150 points total).** For this assignment, each student will select three (3) peer review topical areas at the beginning of the semester, such as 'epidemiology, 'toxicology' and 'infectious disease'. Selected topics must be sent to the instructor and TA by no later than the end of the second week of class (**August 30<sup>th</sup>**). You will be required to view, in class, the presentations for your topical area on that day and select at least one (1) presentation on that day in order to provide a one-page executive summary of the presentation (11-point font, double-spaced). The executive summary should succinctly describe: 1) what the news items is about; 2) how the news item is related to the topical area and environmental health; 3) why this particular news item is a public health concern; and 4) what experts say should be done about this issue. If the presenter has failed to address any of these key items, then the executive summary should state so. You will be expected to seek out this information independently and fill in any gaps of information (with references cited; APA formatting) in your executive summary. Each submission is due exactly 7 days after the in-class presentation.

### **5. Exams (400 points total)**

**There will be two in class exams: a midterm and a final (200 points each; Total 400 points).** The format for both exams will be **CLOSED BOOK**. The midterm exam will test your knowledge of the first series of modules, including material covered in lectures, in the news slides, and assigned readings. The final exam will focus on material covered in modules from the midterm onward; however, as this material builds on concepts presented during the first half of the course, it will be imperative to have a good comprehension of material covered during the first part of the course. Both exams will be comprised of multiple choice, matching, and true/false questions, where you will be expected to interpret the material that is presented in the course and apply it to the scenarios or situations that the exam questions present. You will have 2 hours to complete each exam. Exams will be administered in class. Please bring a valid Gator One card to verify your identity on the date of the exam.

### **Exam Reviews**

An exam review document and/or video recording will be posted the week before each exam, along with additional class time for exam review.

## Grading

Requirement	Due date	Points (% of total)
Written Assignments = 5 @ 50 points each	See Course Schedule	250 (25%)
Debate Written Reports = 1 @ 100 points	See Course Schedule	100 (10%)
In the News = 1 @ 100 points	See Course Schedule and team assignment	100 (10%)
In the News Peer Report = 3 @ 50 points	See Course Schedule and team assignment	150 (15%)
Midterm Exam = 1 @ 200 points	See Course Schedule	200 (20%)
Final Exam = 1 @ 200 points	See Course Schedule	200 (20%)
<b>TOTAL</b>		<b>1000</b>

Point system used (i.e., how do course points translate into letter grades). Note: total points (%) will be rounded either up or down based on the first decimal place at the end of the term (example: 92.5% will be rounded up to 93% and 92.4% rounded down to 92%).

Points earned	93-100%	90-92%	87-89%	83-86%	80-82%	77-79%	73-76%	70-72%	67-69%	63-66%	60-62%	Below 62%
Letter Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E

Please be aware that a C- is not an acceptable grade for graduate students. In addition, a grade of C counts toward a graduate degree only if an equal number of credits in courses numbered 5000 or higher have been earned with an A.

Letter Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E	WF	I	NG	S-U
Grade Points	4.0	3.67	3.33	3.0	2.67	2.33	2.0	1.67	1.33	1.0	0.67	0.0	0.0	0.0	0.0	0.0

For greater detail on the meaning of letter grades and university policies related to them, see the Registrar's Grade Policy regulations at:

<http://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

### Exam Policy

In general, taking an exam after the official exam time will only be permitted under extenuating circumstances and will only be permitted at the discretion of the instructor (advanced notice in writing required and per applicable University of Florida policies).

### Late Assignments and Makeup Work

Assignments turned in up to 24 hours late will be discounted **10%** of the grade that they would otherwise receive. Assignments turned in more than 24 hours late will **not** be graded and will contribute zero points toward your final grade, unless arrangements have been made in advance with the instructor. Missed assignments will contribute zero points toward your final grade.

**Special Circumstances.** In the event of exceptional situations that may interfere with your ability to perform an assignment or meet a deadline, contact the instructor as soon as possible and in advance of the deadline. Such special

cases will be handled on an individual basis, provided that you have sufficient documentation.

Please note: Any requests for makeups due to technical issues MUST be accompanied by the ticket number received from LSS when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail me within 24 hours of the technical difficulty if you wish to request a make-up.

### **Policy Related to Required Class Attendance**

All faculty are bound by the UF policy for excused absences. For information regarding the UF Attendance Policy see the Registrar website for additional details: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

## **STUDENT EXPECTATIONS, ROLES, AND OPPORTUNITIES FOR INPUT**

### **Expectations Regarding Course Behavior**

You are expected to maintain a civil tone both in class and online, and respect the opinions of other in the class. While commenting on others' posts is encouraged, aggressive or patronizing tone and language are unacceptable and may result in the loss of your posting and discussion privileges.

### **Communication Guidelines**

You are encouraged to contact by email using the "Inbox" in Canvas for clarification and assistance with the course material and the assignments, and for special issues that may arise. Weekday daytime (US Eastern Time) emails have the best chances of being answered quickly. Please only use the Canvas "Inbox" to communicate with the course instructor and/or TA. While the instructors and TAs will check their UFL email regularly, they will not be held responsible for email sent directly to their UFL addresses.

### **Academic Integrity**

Students are expected to act in accordance with the University of Florida policy on academic integrity. As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge:

**"We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity."**

You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied:

**"On my honor, I have neither given nor received unauthorized aid in doing this assignment."**

It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For additional information regarding Academic Integrity, please see Student Conduct and Honor Code or the Graduate Student Website for additional details:

<https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>

<http://gradschool.ufl.edu/students/introduction.html>

Please remember that cheating, lying, misrepresentation, or plagiarism in any form is unacceptable and inexcusable behavior.

Plagiarism is especially damaging in any learning environment and will be dealt with in an official way, according to University of Florida regulations. Incidents will be reported directly to the Office of Student Judicial Affairs and a formal procedure will be started in each and every case. There will be no informal incident resolution between student and instructor. Should you have any doubts on whether something constitutes plagiarism, please consult the many available resources on the topic, e.g. starting with <http://web.uflib.ufl.edu/msl/subjects/Physics/StudentPlagiarism.html>, or contact the instructor in advance. There is also a reference posted in the course site, in the Course Help link. As you submit assignments, you will have the opportunity to check it for unintentional plagiarism using Turnitin®, the same software that instructors will use to check your work. You are encouraged to take advantage of this option. If you turn in assignments that are plagiarized, you will receive zero points for that assignment.

You are expected to turn in original work in this course. This means that when answering assignment questions, writing papers, posting discussions, etc you will be expected to write your responses in your own words. You **MAY NOT** copy answers word for word from any course materials or outside sources. On occasion it may be useful to provide a quote from course materials or outside sources in which case you must properly cite the source and place the quote in quotation marks. That being said we urge you to avoid excessive quotation as it does little to demonstrate your understanding of course material.

### **Online Faculty Course Evaluation Process**

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

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## **SUPPORT SERVICES**

### **Accommodations for Students with Disabilities**

If you require classroom accommodation because of a disability, you must register with the Dean of Students Office <http://www.dso.ufl.edu> within the first week of class. The Dean of Students Office will provide documentation of accommodations to you, which you then give to me as the instructor of the course to receive accommodations. Please make sure you provide this letter to me by the end of the second week of the course. The College is committed to providing reasonable accommodations to assist students in their coursework.

### **Counseling and Student Health**

Students sometimes experience stress from academic expectations and/or personal and interpersonal issues that may interfere with their academic performance. If you find yourself facing issues that have the potential to or are already negatively affecting your coursework, you are encouraged to talk with an instructor and/or seek help through University resources available to you.

- The Counseling and Wellness Center 352-392-1575 offers a variety of support services such as psychological assessment and intervention and assistance for math and test anxiety. Visit their web site for more information: <http://www.counseling.ufl.edu>. On line and in person assistance is available.
- You Matter We Care website: <http://www.umatter.ufl.edu/>. If you are feeling overwhelmed or stressed, you can reach out for help through the You Matter We Care website, which is staffed by Dean of Students and Counseling Center personnel.
- The Student Health Care Center at Shands is a satellite clinic of the main Student Health Care Center located on Fletcher Drive on campus. Student Health at Shands offers a variety of clinical services. The clinic is located on the second floor of the Dental Tower in the Health Science Center. For more information, contact the clinic at 392-0627 or check out the web site at: <https://shcc.ufl.edu/>
- Crisis intervention is always available 24/7 from:  
Alachua County Crisis Center  
(352) 264-6789  
<http://www.alachuacounty.us/DEPTS/CSS/CRISISCENTER/Pages/CrisisCenter.aspx>

Do not wait until you reach a crisis to come in and talk with us. We have helped many students through stressful situations impacting their academic performance. You are not alone so do not be afraid to ask for assistance.

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### Topical Outline/Course Schedule

Modules	Week / Dates	Topic(s) and Speaker(s)	Reading(s)	Debates	Assignments	In the News
<b>Getting Started</b>	Week 1 Aug 20-23	<b>Syllabus</b>	Syllabus	-	<b>Syllabus Quiz</b> due Aug 26	-
<b>1</b>	Week 1 Aug 20-23	<b>Introduction to Environmental Health</b> Dr. Coker	<i>Environmental Health</i> Chapter 1: The Scope Pages 1-22	-		-
<b>2</b>	Week 2 Aug 26- Aug 30	<b>Toxicology and Environmental disease</b> Dr. Sabo- Attwood	<i>Environmental Health</i> Chapter 2: Toxicology Pages 23-42	-	<b>Ungraded Assignment</b> class exercise	-
<b>3</b>	Week 3 Sep 3-6	<b>Emerging contaminants, Nanomaterials and EDCs</b> Dr. Bisesi <b>(recorded Sep 6<sup>th</sup>)</b>	See Canvas Site	-	<b>Assignment 1</b> due Sep 6	
<b>4</b>	Week 4 Sep 9-13	<b>Infectious Disease</b> Dr. Ali	<i>Environmental Health</i> Chapter 10: Animals, Insects, and Related Pests Pages 220-241	-	-	<b>Infectious Disease</b> due Sep 11
<b>5</b>	Week 5 Sep 16-20	<b>Environmental Epidemiology</b> Dr. Coker	<i>Environmental Health</i> Chapter 3: Epidemiology Pages 43-59	-	-	<b>Environmental Epidemiology</b> due Sep 18
<b>6</b>	Week 6 Sep 23-27	<b>Air Quality and Health</b> Dr. Coker	<i>Environmental Health</i> Chapter 5: Indoor and Outdoor Air Pages 87-112	-	<b>Assignment 2</b> due Sep 27	<b>Air Quality</b> due Sep 25
<b>7</b>	Week 7 Sep 30-Oct 3	<b>Water, Sanitation and Hygiene</b> Dr. Bagamian	<i>Environmental Health</i> Chapter 7: Drinking Water Pages 87-112 & Chapter 8: Liquid Waste Pages 165-170		-	<b>Water Quality</b> due Oct 2
	Week 8 Oct 7-11		<b>Midterm Exam</b> <b>Modules 1-7</b>			
<b>8</b>	Week 9 Oct 14-18	<b>Solid Waste Management</b> Dr. Coker	<i>Environmental Health</i> Chapter 9: Solid Waste Pages 190-219	<b>Fracking</b> Oct 18	-	<b>Toxicology</b> due Oct 16

<b>9</b>	Week 10 Oct 21-25	<b>Food Safety &amp; One Health</b> Dr. Higgins	<i>Environmental Health</i> Chapter 8: Food Pages 113-136	<b>CAFOS</b> due Oct 25	<b>Assignment 3</b> due by Oct 25	<b>Food Safety</b> due Oct 23
<b>10</b>	Week 11 Oct 28-Nov 1	<b>Climate Change and Global Health</b> Dr. Liang	<i>Environmental Health</i> Chapter 18: A Global View Pages 440-445	<b>Fossil Fuels</b> Nov 1		<b>Climate Change</b> due Oct 30
<b>11</b>	Week 12 Nov 4-8	<b>Risk Assessment, Management and Communication</b> Dr. Stuchal <b>(Recorded Nov 8)</b>	<i>Environmental Health</i> Chapter 15: Risk Assessment and Management Pages 340-363	<b>DDT and Malaria Control</b> Nov 8	<b>Assignment 4</b> due Nov 8	<b>Environmental Contamination</b> due Nov 6
<b>12</b>	Week 13 Nov 12-15	<b>Environmental Monitoring</b> Dr. Coker	See Canvas Site	-	<b>Assignment 5</b> due Nov 15	-
<b>13</b>	Week 14 Nov 18-22	<b>Environmental Justice and Health Disparities</b> Dr. Coker	See Canvas Site	<b>Chlorpyrifos</b> Nov 22	<b>Debate Report</b> due Nov 22	-
	Week 15	<b>Holiday</b>				
	Week 16 Dec 2-4	<b>Final Exam Review Session (Dec 4)</b>				
	Week 17	<b>Final Exam Modules 8-13 Monday, December 9<sup>th</sup> 3pm-5pm : HPNP G312</b>				