# Department of Public Health Sciences
## MPH Program Syllabus

<table>
<thead>
<tr>
<th>Course name:</th>
<th>Environmental Health</th>
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<tbody>
<tr>
<td>Course no.:</td>
<td>PUBH 5304</td>
</tr>
<tr>
<td>Course CRN:</td>
<td>14480</td>
</tr>
<tr>
<td>Semester/year</td>
<td>Fall/2015</td>
</tr>
<tr>
<td>Graduate credit hours:</td>
<td>3</td>
</tr>
<tr>
<td>Class location:</td>
<td>Classroom building C204 9Campbell Building) – to be confirmed</td>
</tr>
<tr>
<td>Class meeting time:</td>
<td>Mondays 6:00 – 8:50 PM</td>
</tr>
<tr>
<td>Class instructor:</td>
<td>Gabriel Ibarra-Mejia, MD, PhD</td>
</tr>
<tr>
<td>Office location:</td>
<td>HSSN Building Room 409</td>
</tr>
<tr>
<td>Phone:</td>
<td>(915) 747-7270</td>
</tr>
<tr>
<td>Email:</td>
<td><a href="mailto:gabmejia@utep.edu">gabmejia@utep.edu</a></td>
</tr>
<tr>
<td>Office hours:</td>
<td>Fridays 9:00 - 12:30</td>
</tr>
<tr>
<td>Preferred contact method:</td>
<td>E-MAIL</td>
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## Course description:
Core course examines the environment and its relationship to human health and disease. Focuses on the physical, chemical, biological, and behavioral-social factors of the human environment. Emphasizes the principles and concepts of environmental health and environmental health hazards.

## Course pre-requisites:
N/A

## Required textbooks:
- Environmental Health: Ecological perspectives
  By: Kathryn Hilgenkamp
  Published by: Jones & Bartlett
  ISBN: 0-7637-2377-0

## Supplemental readings:
- Essentials of Environmental Health (Paperback)
  Friss, Robert H.
- Risk Assessment for Environmental Health (Paperback)
  Mark G. Robson (Editor), William A. Toscano (Editor)
  Jossey-Bass; 1 edition (February 20, 2007)

## Course format:
1. Lecture format with student participation and presentations; each session will be 3 hours with a 15-minute break; classes will be divided equally between lecture and group discussion with student presentations (80%).
2. Technology enhanced through Blackboard Learn® learning platform (10%)
3. Field trips (10%)

## Major learning objectives (must be numbered):
1. By taking this course, students are expected to learn about:
   1. Historical, current, and future need for environmental health science as a field of study, from a scientific, practical, and personal perspective
   2. Principles in toxicology (e.g., toxicokinetics, dose-responses) as it pertain to the environmental health sciences
   3. Sources and exposure routes of environmental and occupational agents
   4. The elements of basic human quantitative risk assessment; hazard identification; exposure assessment; dose-response evaluation; and risk characterization.
5. Policies, guidelines, databases, and programs relevant to environmental health science
6. Multiple perspectives on contemporary environmental health issues

**Assessment strategies:**

1. Online examinations: Four (4):
   a. 1 pre-term (0 points)
   b. 1 mid-term (100 points)
   c. 1 second-term (100 points)
   d. 1 final – comprehensive (100 points)
2. Individual or pair-group Audio-Videotaped Research Protocol and presentation (100 points)
3. Book presentation (50 points)
4. Homework and other assignments (extra-credit points; 0-20 points)
5. Active participation (Instructor’s prerogative points; 0-20 points)

<table>
<thead>
<tr>
<th>Program Competencies (core competency area must be identified &amp; number according to that listed by the MPH program)</th>
<th>Learning objectives</th>
<th>Assessment strategies</th>
</tr>
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<tbody>
<tr>
<td>This course meets the following MPH degree &amp; graduate certificate in public health competencies</td>
<td></td>
<td></td>
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<tr>
<td>1. Describe the direct and indirect human, ecological and safety effects of major environmental and occupational agents.</td>
<td>1</td>
<td>1; 3; 4; 5</td>
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<tr>
<td>2. Describe genetic, physiologic and psychosocial factors that affect susceptibility to adverse health outcomes following exposure to environmental hazards.</td>
<td>2; 3</td>
<td>1; 2; 3; 4; 5</td>
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<tr>
<td>3. Describe federal and state regulatory programs, guidelines and authorities that control environmental health issues.</td>
<td>5</td>
<td>1; 2; 4; 5</td>
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<tr>
<td>4. Specify current environmental risk assessment methods.</td>
<td>4</td>
<td>1; 2; 3; 5</td>
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<tr>
<td>5. Specify approaches for assessing, preventing and controlling environmental hazards that pose risks to human health and safety.</td>
<td>2; 3; 4</td>
<td>1; 2; 3; 5</td>
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<tr>
<td>6. Explain the general mechanisms of toxicity in eliciting a toxic response to various environmental exposures.</td>
<td>2</td>
<td>1; 2; 3; 4; 5</td>
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<tr>
<td>7. Discuss various risk management and risk communication approaches in relation to issues of environmental justice and equity.</td>
<td>3; 4; 5; 6</td>
<td>2; 3; 5</td>
</tr>
<tr>
<td>8. Develop a testable model of environmental insult.</td>
<td>2; 3; 4</td>
<td>1; 2</td>
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<thead>
<tr>
<th>Grading scale &amp; criteria</th>
<th>Type</th>
<th>Point value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-term examination</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Midterm online examination</td>
<td>0 -100</td>
<td></td>
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<tr>
<td>Second term online examination</td>
<td>0 -100</td>
<td></td>
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<tr>
<td>Final online comprehensive examination</td>
<td>0 -100</td>
<td></td>
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<tr>
<td>Research protocol project</td>
<td>0 -100</td>
<td></td>
</tr>
<tr>
<td>Assigned topic presentation &amp; discussion</td>
<td>0 - 50</td>
<td></td>
</tr>
<tr>
<td>Homework, other assignments, and extra credit</td>
<td>&gt;20</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>&gt;450</td>
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The translation of points earned to a letter grade is defined in the rubric as follows:

- 406 points and above ........ A
- 361 – 405 ...................... B
- 316 – 360 ...................... C
- 271 – 315 ...................... D
- 270 or less ...................... F

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### Incomplete policy:
An “I” (incomplete grade) can only be considered only if requested by the student in advance of the conclusion of the course and only for legitimate, documented emergencies. Failure to request and negotiate the terms of an “Incomplete” grade before the conclusion of the course will result in a denial except in the most extraordinary circumstances.

### Course/Instructor & Institutional Policies

#### Attendance:
It is UTEP policy that all students attend all scheduled classes. Attendance will be taken at each class. When a student registers for a course, it is assumed that she/he has made arrangements to avoid such conflicts. Students are responsible for any information or activities presented in class discussions, lectures, assignments, and/or readings. If you are unable to attend class, it is your responsibility to inform the instructor before the respective class session. Students may be administratively withdrawn for excessive unexcused absences (2 or more classes). Compliance to due dates, in class presentations, homework, exams and other activities is mandatory. All emergency-related absences must be verified.

Chronic tardiness not only reflects lack of commitment and professional behavior but also is disruptive to your classmates and the instructor. You are expected to be in class and seated by 6:00 PM.

#### Reading assignments:
All assigned readings need to be completed prior to coming to the next scheduled class session. Example: the reading assignments for week 2 need to be completed prior to coming to the week 2 class session.

#### Writing standards:
Effective public health leaders and practitioners are also effective written as well as oral communicators. Written communication is a critical element of the communication process. Our MPH graduate program both recognizes and expects good writing to be the norm for course work. Please feel free to seek out assistance from the UTEP Writing Center. It is free and they are very helpful.

#### Policy for late assignments:
Due dates for homework, exams, presentations and other assignments are designed for fairness to all students. No exceptions to those dates will be made excepting in cases of university-designated closures. All assignments are due at the beginning of the class period on the due date. Five (5) points will be deducted for each day an assignment is late (including weekend days).

#### Permission to record lectures & discussions:
Not permitted without express permission of the instructor

### Cellphone/electronic tablet/ use policies:
Please note that all cellular telephones, pagers, headphones, iPods, iPads, mp3 players, earpieces, laptops, and other forms of communication and entertainment technology equipment must be powered off and put away during the class period. If a situation should arise which necessitates a student to be contacted by a physician or family member, the instructor shall be notified and cell phone can be set to “vibrate.” Please be advised that students who use unauthorized technology during class time will be dismissed from that week’s class session.

### Field trip policies:
N/A

### Class participation:
Active student participation in this course is very important. Students must be prepared to come to class to discuss, answer questions, and participate in all class activities.

### Special accommodations:
If you have a disability and need classroom accommodations, please contact The Center for Accommodations and Support Services (CASS) at 747-5148, or by email to cass@utep.edu, or visit their office located in UTEP Union East, Room 106. For
Student conduct: Students are expected to be above reproach in all scholastic activities. Students who engage in scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and dismissal from the university. “Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, and the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another student, any act designed to give unfair advantage to a student or the attempt to commit such acts.” Regent’s Rules and Regulations, Part One, Chapter VI, Section 3.2, Subdivision 3.22. Since scholastic dishonesty harms the individual, all students, and the integrity of the University, policies on scholastic dishonesty will be strictly enforced. From the UTEP Dean of Student Affairs (http://studentaffairs.utep.edu/Default.aspx?tabid=4386) “It is an official policy of university that all suspected cases or acts of alleged scholastic dishonesty must be referred to the Dean of Students for investigation and appropriate disposition. Any student who commits an act of scholastic dishonesty is subject to discipline. Scholastic dishonesty includes, but is not limited to cheating, plagiarism, collusion, and the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts”.

Examples of “cheating” include:

- Copying from the homework, in-class work or exam paper of another student, engaging in written, oral, or any other means of communication with another student during an exam or homework assignment, or giving aid to or seeking aid from another student during a test;
- Possession and/or use during an exam or home test of materials which are not authorized by the person giving the test, such as class notes, books, or specifically designed “crib notes”;
- Using, obtaining, or attempting to obtain by any means the whole or any part of non-administered test, test key, homework solution, or computer program; using a test that has been administered in prior classes or semesters but which will be used again either in whole or in part without permission of the instructor; or accessing a test bank without instructor permission;
- Collaborating with or seeking aid from another student for an assignment without authority;
- Substituting for another person, or permitting another person to substitute for one’s self, to take a test;
- Falsifying research data, laboratory reports, and/or other records or academic work offered for credit.

“Plagiarism” means the appropriation, buying, receiving as a gift, or obtaining by any means another’s work and the unacknowledged submission or incorporation of it in one’s own academic work offered for credit, or using work in a paper or assignment for which the student had received credit in another course without direct permission of all involved instructors. NOTE: This includes cutting-and-pasting and photocopying from online and other material.

“Collusion” means the unauthorized collaboration with another person in preparing academic assignments offered for credit or collaboration with another person to commit a violation of any provision of the rules on scholastic dishonesty.

additional information, please visit the CASS website at www.sa.utep.edu/cass.
<table>
<thead>
<tr>
<th>Dates</th>
<th>Topics</th>
<th>Homework Assignments</th>
</tr>
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</table>
| WEEK 1 | Course overview; and syllabus Review; Pair building; Introduction to environmental sciences. | Syllabus  
Sign up (pairs)  
Pre-term examination (BB) Due: 8/26 at midnight. |
| WEEK 2 | Environmental principals and ecology; Human and Global Issues; Effects of the environment on human health; Brainstorm activity to select course project topic and turn in selection | Ch.1-3  
Assignment presentation & discussion |
| WEEK 3 | Epidemiology and environmental diseases                                 | Ch. 4  
Turn in selected topic’s project proposal (BB)  
Assignment presentation & discussion |
| WEEK 4 | Environmental toxins & toxicology                                       | Ch. 5  
Assignment presentation & discussion |
| WEEK 5 | Environmental health risk assessment and intervention                   | Ch. 6  
Assignment presentation & discussion |
| WEEK 6 | Pests and pesticides; Land                                              | Ch. 7 & Ch. 10  
Assignment presentation & discussion  
Schedule a date for presentation (BB) |
| WEEK 7 | Air & Water                                                            | Ch. 8 & Ch. 9  
Assignment presentation & discussion  
Mid-term examination |
| WEEK 8 | Energy & Radiation                                                     | Ch. 11 & Ch. 12  
Assignment presentation & discussion |
| WEEK 9 | Food safety concerns                                                    | Ch. 13  
Assignment presentation & discussion |
| WEEK 10 | Waste management                                                       | Ch. 14  
Assignment presentation & discussion |
| WEEK 11| Housing and indoor environments                                         | Ch. 15  
Assignment presentation & discussion |
| WEEK 12| Injury and safety issues                                                | Ch. 16  
Assignment presentation & discussion |
| WEEK 13| Occupational health and safety                                          | Ch. 17  
Assignment presentation & discussion |
| WEEK 14| Disaster preparedness                                                   | Ch. 18  
Assignment presentation & discussion  
PROJECT PRESENTATIONS |
| WEEK 15| Environmental and Public Health Challenges                              | Ch. 19  
Assignment presentation & discussion  
PROJECT PRESENTATIONS |
| WEEK 16| Final examination                                                       | |

*Note: The course syllabus is a general tentative plan for the course. Any changes will be announced to the class in advance by the instructor.*