Course Title: Introduction to Environmental Public Health Sciences, Fall 2017

Course Number: PHCO0503, section -030J

Course Location: Rutgers School of Public Health (SPH), room 3a/b, Piscataway, NJ

Course Date & Time: Mondays nights during 9/11-12/12/2017, 6:10 - 9:10 PM, run as an eight-module course with structured, asynchronous online discussion board and a quiz every 1-3 modules completed at home.

Course Instructor: Derek G. Shendell, D.Env, MPH, Associate Professor, Rutgers SPH-ENOH (732) 235-5409, voice mail checked from offices and field research, shendedg@sph.rutgers.edu

Office Hours: By appointment; however, each Monday instructor will remain after class for questions to ~9:30 PM and TA to be present from ~5-6 PM.

Course Assistant: Thanawat Rattanawitoon, Rutgers SPH PhD student (ENOH major), tr372@sph.rutgers.edu (student/personal e-mail)


Additional/Supplemental Readings/Resources:
For suggested supplemental readings by topic/subtopics covered in each thematic module, please see online supplemental materials.

Course Description: We explore ways in which particular characteristics of our environment potentially affect health. We examine health problems associated with biological, chemical, physical, and radiological agents, how they impact food safety, infectious disease, air quality (indoor, outdoor), water quality, and land resources in community and occupational settings. Policies intended to improve public health via mitigation of environmental impacts are reviewed.

Core Course Competencies: The competencies addressed in this course include:

- Specify approaches for assessing, preventing, and controlling environmental hazards that pose risks to human health and safety.
- Describe the direct and indirect human, ecological and safety effects of major environmental and occupational agents.
- Specify current environmental risk assessment methods.
- Describe generic, physiologic and psychosocial factors that affect susceptibility to adverse health outcomes following exposure to environmental hazards.
• Discuss various risk management and risk communication approaches in relation to issues of environmental justice and equity.
• Explain the general mechanisms of toxicity in eliciting a toxic response to various environmental exposures.
• Develop a testable model of environmental insult.
• Describe federal and state regulatory programs, guidelines and authorities that control environmental health issues.

Course Objectives: By the completion of this course, students will be able to:

• Describe the spectrum of environmental and occupational health problems;
• Characterize target populations exposed to hazardous agents, and susceptibility and vulnerability factors;
• Describe the tools that are used to analyze health impacts of environmental exposures, such as the risk assessment process, epidemiology, and industrial hygiene;
• Describe the main methods used to control health hazards, i.e., reduce and/or prevent exposure;
• Describe the existing regulatory framework for controlling environmental and occupational agents.

(Note: These are based on eight from ASPPH/CEPH for environmental health, the competencies listed above.)

Department Competencies Addressed: Each Department identifies competencies for each degree offered. This course addresses competencies listed for the MPH and doctoral degrees (as a core course) for the Department of Environmental and Occupational Health, including both MPH concentrations (Occupational Safety & Health, Environmental Health Sciences). Please visit Department webpages on the School of Public Health’s website at http://sph.rutgers.edu/ for competencies addressed by this course for other degrees and departments.

Course Requirements and Grading: With % provided of 1000 total points for course:

Exams and assignments: ~50%; Multiple written tasks, including quiz #1-4 (10%*4) + in-person or online tasks

In-Class and/or Online Participation via Discussion Boards and Attendance for Activities: ~20%; As ~1-5% every 1-2 modules, with points awarded for new posts and reply posts prompted by Dr. Shendell or student (see course management materials)

Papers (two-page paper + Appendix + presentation): ~30%; 20% (as 15% + 5%) for paper + Appendix, and, 10% for accompanying PPT slides, oral talk and attendance at “Town Hall”

This translates at the end of the course to:
93.6-100% FOR A
(88.6) 89-93.5% FOR A-
84.6-89% (88.5) FOR B+
80.6-84.5% FOR B
76.6-80.5% FOR B-
Tiebreakers will be determined by performance on the quizzes/assignments, then the paper.

**Course Schedule:** Each Monday will be a combination of lecture, smaller and larger group discussions/activities, short films with discussion questions, and/or “Town Halls” based on paper/Appendix.

*Please see pages comprising the supplemental online course management materials, e.g., detailed calendar by Module (in Excel, matches Moodle2 calendar) and week(s), with topics and assignments, quizzes and paper/appendix due dates.*

**School of Public Health Honor Code:** The School of Public Health Honor Code is found in the student bulletin (sph.rutgers.edu/academics/catalog/index.html). Each student bears a fundamental responsibility for maintaining academic integrity and intellectual honesty in his or her graduate work. For example, all students are expected to observe the generally accepted principles of scholarly work, to submit their own rather than another’s work, to refrain from falsifying data, and to refrain from receiving and/or giving aid on examinations or other assigned work requiring independent effort. In submitting written material, the writer takes full responsibility for the work as a whole and implies that, except as properly noted by use of quotation marks, footnotes, etc., both the ideas and the works used are his or her own. In addition to maintaining personal academic integrity, each student is expected to contribute to the academic integrity of the school community by not facilitating inappropriate use of her/his own work by others and by reporting acts of academic dishonesty by others to an appropriate school authority. It should be clearly understood that plagiarism, cheating, or other forms of academic dishonesty will not be tolerated and can lead to sanctions up to and including separation from Rutgers School of Public Health.

**Policy Concerning Use of Recording Devices and Other Electronic Communications Systems:** When personally owned communication/recording devices are used by students to record lectures and/or classroom lessons, such use must be authorized by the faculty member or instructor who must give either oral or written permission prior to the start of the semester and identify restrictions, if any, on the use of mobile communications or recording devices.