

# Argosy University

## COURSE SYLLABUS

PH6016

Environmental Health and Emergency Preparedness

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### Faculty Information

**Faculty Name:**

**Campus:**

**Contact Information:**

**Office Hours:**

**Short Faculty Bio:**

### Course description:

This course provides an overview of environmental factors including biological, chemical, physical, occupational, and human elements that create optimal and adverse health conditions. Students learn federal and state regulations, guidelines, mandates, and authorities that control environmental and emergency preparedness issues and operations. Students address genetic, physiological, cultural, psychosocial and safety factors to prevent and control environmental hazards to protect the public. They will utilize a lean management approach for rapid process improvements to promote safety and quality. Students plan, coordinate and prepare a community to effectively respond to disasters and deploy appropriate risk management and risk communication approaches.

**Course Pre-requisites:** None

### Required Textbook/Readings:

**IMPORTANT: Effective Summer II (July 1, 2010): You are not required to purchase the textbook for this course. Your textbook will be available to you as an electronic book with your fully online or blended course on the eCollege platform.**

Hilgenkamp, K. (2006). *Environmental health-ecological perspectives*. Jones & Bartlett  
ISBN: 9780763723774

### *LIRN.net*

Woodruff, T.J., et. al. (2008). Air pollution and postneonatal infant mortality in the United States, 1999-2002, *Environmental Health Perspectives*, 116(1): 110-115  
(Week 2)

Bedsworth, L. (2009). Preparing for climate change: a perspective from local public health officers in California, *Environmental Health Perspectives*, 117(4): 617-623  
(Week 2)

Magnusson, R.S. (2007). Non-communicable diseases in global health governance:

enhancing global process to improve health development, *Global Health*, 3:2 (Week 4)

Ram, P.K., et. al. (2007). Household water disinfection in hurricane-affected communities in Louisiana: implications for disaster preparedness for the general public, *American Journal of Public Health*, S130-S135 (Week 8)

Eisenman, D.P., et. al. (2007). Disaster planning and risk communication with vulnerable communities: lessons from hurricane Katrina, *American Journal of Public Health*, S109-S115 (Week 8)

**PubMed Central:**

Seanz, R.A., et. al. (2006). Confined animal feeding operations as amplifiers of influenza, *Vector Borne Zoonotic Dis.* (4) 338-346 (Week 2)

**Recommended Websites:**

- [www.cdc.gov/Environmental/](http://www.cdc.gov/Environmental/)
- <http://www.cdc.gov/nceh/hsb/disaster/#pubs>
- [www.atsdr.cdc.gov/hac/phamanual](http://www.atsdr.cdc.gov/hac/phamanual)
- <http://www2.alliance-hpsr.org/features/factfiles/water/en/index.html>
- <http://www.who.int/topics/en/>
- <http://www.undp.org/mdg/>
- <http://www.atsdr.cdc.gov/terrorism/terrorism-response.html>
- <http://www.epa.gov/lawsregs/>
- <http://www.euro.who.int/healthy-cities>
- [http://cfpub.epa.gov/npdes/home.cfm?program\\_id=7](http://cfpub.epa.gov/npdes/home.cfm?program_id=7)

**Course length:** 7.5 Weeks

**Contact Hours:** 45 Hours

**Credit Value:** 3.0

**Program Outcomes:**

**1. Health Policy Management**

- a. Examine public health problems and develop proposed policies that illustrate pertinent legislative issues, advocacy opportunities, communication, media management and system issues to successfully pass, communicate, and implement the policy.
- b. Align policies that contribute and promote health and well being with local cultures and realities to guide effective practices that improve health status.

**2. Healthcare and Organizational Management**

- a. Assess organizational norms and values, and build coalitions and consensus around organizational vision, priorities, state and national health and wellness agendas with clear performance impacts.

- b. Manage and determine costs and implications for public health programs with un-met needs, and develop plans to meet customer needs and improve health outcomes.

### **3. Communication and Informatics**

- a. Develop proposals for public health organizations to invest in and implement integrated information systems that collect, track, and share information across critical networks of providers and IT systems, to improve processes, quality of care, and service outcomes.
- b. Examine customer/community needs and apply a 'systems approach' in successfully addressing those needs by aligning the organization and customer needs with leading information technology and communicating the improvements to key stakeholders.

### **4. Systems Thinking**

- a. Analyze the make-up of organizational systems and its characteristics, evaluating the impact of changes in the input, processes, and output on the health outcomes.
- b. Analyze the interrelations among public health systems and key stakeholders to influence the political, social, economic, and educational factors that impact public health systems.

### **5. Performance Improvement**

- a. Propose a performance improvement system that includes assessment of the organizational capacity, culture, readiness, and planning to establish performance baseline, goals and performance management process for monitoring progress and continuous improvements.
- b. Integrate public health informatics, information systems and technology, and communication strategies in the design, implementation, evaluation, and replication of best practices for monitoring and improving overall practice, performance, and outcomes of the program/organization.

### **6. Interpersonal Effectiveness**

- a. Examine the importance of interpersonal relationships with key stakeholders to establish, build, and sustain effective alliances to successfully address priority health problems in the community.

### **Course Objectives:**

- Describe and differentiate the evolving issues of environmental health. ST1
- Examine multiple environmental threats to health. HP2; HOM1

- Assess best practices in risk reduction, risk control, crisis and risk communication strategies. PI1
- Examine natural and man-made issues that occur around the world and their global impact on public health. ST1
- Articulate the critical issues of both injury and occupational health and Safety
- Propose the appropriate level of local, state and Federal laws and agencies responsible for responding to environmental health and/or emergencies that impact public health. ST1
- Develop an intervention that effectively responds to a public health disaster. HP2; HOM1; C&I 2; IE1.

### Activities/Assignments/Assessments Table

	Topics	Resources
1	Introduction to Environmental Health <ul style="list-style-type: none"> <li>• Impact of humans on the environment</li> <li>• Effects of the environment on public health</li> <li>• Relationship of environmental health and disease prevention</li> <li>• History of environmental health issues</li> <li>• Causal agents for environmentally related diseases</li> </ul>	<b>Reading Resources/Digital Assets</b> <ul style="list-style-type: none"> <li>• Chapters 1, 3 &amp; 4</li> <li>• <a href="http://www.cdc.gov/Environmental/">www.cdc.gov/Environmental/</a></li> </ul>
2	Environmental Threats to Health <ul style="list-style-type: none"> <li>• Health problems associated</li> </ul>	<b>Reading Resources/Digital Assets</b> <ul style="list-style-type: none"> <li>• Chapters 7, 8, 12, 13, 14, &amp; 15</li> <li>• <a href="http://www.cdc.gov/Environmental/cfpub.epa.gov/npdes/home.cfm?program_id=7">www.cdc.gov/Environmental/cfpub.epa.gov/npdes/home.cfm?program_id=7</a></li> <li>• Bedsworth, L. (2009). Preparing for climate change: a perspective</li> </ul>

	<p>with pests and pesticides</p> <ul style="list-style-type: none"> <li>• Ways that air quality affects human health</li> <li>• Preventive measures to control radiation exposure</li> <li>• Overview of several food-borne illnesses</li> <li>• health hazards associated with solid waste, sewage, and medical waste</li> </ul>	<p>from local public health officers in California, <i>Environmental Health Perspectives</i>, 117(4): 617-623</p> <ul style="list-style-type: none"> <li>• Seanz, R.A., et. al. (2006). Confined animal feeding operations as amplifiers of influenza, <i>Vector Borne Zoonotic Dis.</i> (4) 338-346 (Week 2)</li> </ul>
	<p>Risk Intervention</p> <ul style="list-style-type: none"> <li>• Hazardous materials in the environment</li> <li>• Models used to assess environmental health risks</li> <li>• Affect of uncertainty on determination of risk</li> <li>• Basic concepts in the precautionary principle</li> </ul>	<p><b>Reading Resources/Digital Assets</b></p> <ul style="list-style-type: none"> <li>• Chapters 5 &amp; 6</li> <li>• <a href="http://www.atsdr.cdc.gov/hac/phamanua">www.atsdr.cdc.gov/hac/phamanua</a></li> </ul>
4	<p>Global issues</p> <ul style="list-style-type: none"> <li>• Environmental concerns between a developing and</li> </ul>	<p><b>Reading Resources/Digital Assets</b></p> <ul style="list-style-type: none"> <li>• Chapters 2, 9, 10 &amp; 11</li> <li>• <a href="http://www2.alliance-hpsr.org/features/factfiles/water/en/index.html">http://www2.alliance-hpsr.org/features/factfiles/water/en/index.html</a></li> <li>• <a href="http://www.who.int/water_sanitation_health/monitoring/jmp2006/en/index.html">http://www.who.int/water_sanitation_health/monitoring/jmp2006/en/index.html</a></li> <li>• <a href="http://www.undp.org/mdg/">http://www.undp.org/mdg/</a></li> </ul>

	<p>industrialized country</p> <ul style="list-style-type: none"> <li>• Impact of air pollution in one country on health in other countries</li> <li>• Global health concerns</li> <li>• Millennium Development Goals</li> </ul>	<ul style="list-style-type: none"> <li>• Magnusson, R.S. (2007). Non-communicable diseases in global health governance: enhancing global process to improve health development, <i>Global Health</i>, 3:2</li> </ul> <p><b>LAS Assessment 1: ( Objectives 1-5) 20%</b></p> <p>A major agribusiness is interested in opening a beef confined animal feeding operation (CAFO) in your community. There will be public hearings on the proposal and the local government is very interested in seeing it established due to the income it will generate for the community.</p> <p>As a public health professional, you have been asked to testify on the potential health impacts of the CAFO in the community. Write up your presentation and justify your main points with established research. You may use information from class readings, recommended websites, and any journal articles you can find in the Argosy Library of online resources. Keep your paper short and concise because you will only be given 15 minutes to testify.</p>
5	<p>Safety and Health</p> <ul style="list-style-type: none"> <li>• Unintentional and intentional injuries</li> <li>• Physical, biological, and chemical occupational hazards</li> <li>• Hazardous occupations</li> </ul>	<p><b>Reading Resources/Digital Assets</b></p> <ul style="list-style-type: none"> <li>• Chapters 16 &amp; 17</li> </ul>
6	<p>Environmental Health Laws</p> <ul style="list-style-type: none"> <li>• Public Health laws and their role in maintaining the environment</li> <li>• World Health Organization 's Healthy City Initiative</li> <li>• CDC, EPA and WHO</li> </ul>	<p><b>Reading Resources/Digital Assets</b></p> <ul style="list-style-type: none"> <li>• Chapter 19</li> <li>• <a href="http://www.epa.gov/lawsregs/">http://www.epa.gov/lawsregs/</a></li> <li>• <a href="http://www2a.cdc.gov/php/eh.asp">http://www2a.cdc.gov/php/eh.asp</a></li> <li>• <a href="http://www.who.int/topics/en/">http://www.who.int/topics/en/</a></li> <li>• <a href="http://www.euro.who.int/healthy-cities">http://www.euro.who.int/healthy-cities</a></li> </ul>
7	<p>Disaster</p>	<p><b>Reading Resources/Digital Assets</b></p>

	<p>Response</p> <ul style="list-style-type: none"> <li>• Definition of disaster</li> <li>• Responsibilities of the National Center for Environmental Health related to disaster preparedness</li> <li>• Climatological and geological disasters</li> </ul>	<ul style="list-style-type: none"> <li>• Chapter 18</li> </ul>
8	<p>Disaster Response</p> <ul style="list-style-type: none"> <li>• Man-made disasters and their effect on health</li> <li>• Public health efforts in bioterrorism preparedness</li> <li>• Disaster preparedness and communication</li> </ul>	<p><b>Reading Resources/Digital Assets</b></p> <ul style="list-style-type: none"> <li>• Ram, P.K., et. al. (2007). Household water disinfection in hurricane-affected communities in Louisiana: implications for disaster preparedness for the general public, <i>American Journal of Public Health</i>, S130-S135</li> <li>• Eisenman, D.P., et. al. (2007). Disaster planning and risk communication with vulnerable communities: lessons from hurricane Katrina, <i>American Journal of Public Health</i>, S109-S115</li> <li>• <a href="http://www.atsdr.cdc.gov/terrorism/terrorism-response.html">http://www.atsdr.cdc.gov/terrorism/terrorism-response.html</a></li> <li>• <a href="http://www.cdc.gov/nceh/hsb/disaster/#pubs">http://www.cdc.gov/nceh/hsb/disaster/#pubs</a></li> </ul> <p><b>LAS Assessment 2: 20%</b>  Investigate and report, <b>in detail</b>, on your local communities' level of preparedness for a disaster. What type of disaster do local agencies expect? What types of disasters is the community preparing for? Identify gaps in the preparedness and propose recommendations for what should be done, and by whom.</p>

### Grading Criteria

*Grading Scale*

*Grading requirements*

<b>A</b>	100 – 93 %
<b>A-</b>	92 – 90 %
<b>B+</b>	89 – 88 %
<b>B</b>	87 – 83 %

<b>B-</b>	82 – 80 %
<b>C+</b>	79 – 78 %
<b>C</b>	77 – 73 %
<b>C-</b>	72 – 70 %
<b>F</b>	69 and below

<i>Attendance/participation</i>	<i>10%</i>
<i>Weekly Assignments</i>	<i>60%</i>
<i>LAS Assessment(s)</i>	<i>40%</i>
	<i>100%</i>

### **Library**

*All resources in Argosy University’s online collection are available through the Internet. The campus librarian will provide students with links, user IDs, and passwords.*

Library Resources: Argosy University’s core online collection features nearly 21,000 full-text journals and 23,000 electronic books and other content covering all academic subject areas including Business & Economics, Career & General Education, Computers, Engineering & Applied Science, Humanities, Science, Medicine & Allied Health, and Social & Behavior Sciences. Many titles are directly accessible through the Online Public Access Catalog at <http://library.argosy.edu>. Detailed descriptions of online resources are located at <http://library.argosy.edu/libweb/resources/>

In addition to online resources, Argosy University’s onsite collections contain a wealth of subject-specific research materials searchable in the Online Public Access Catalog. Catalog searching is easily limited to individual campus collections. Alternatively, students can search combined collections of all Argosy University Libraries. Students are encouraged to seek research and reference assistance from campus librarians.

Information Literacy: Argosy University’s Information Literacy Tutorial was developed to teach students fundamental and transferable research skills. The tutorial consists of five modules where students learn to select sources appropriate for academic-level research, search periodical indexes and search engines, and evaluate and cite information. In the tutorial, students study concepts and practice them through interactions. At the conclusion of each module, they can test their comprehension and receive immediate feedback. Each module takes less than 20 minutes to complete. Please view the tutorial at <http://library.argosy.edu/infolit/>

### **Academic Policies**

Academic Dishonesty/Plagiarism: In an effort to foster a spirit of honesty and integrity during the learning process, Argosy University requires that the submission of all course assignments represent the original work produced by that student. All sources must be documented through normal scholarly references/citations and all work must be submitted using the current edition of the *Publication Manual of the American Psychological Association*. Students are encouraged to purchase this manual and become familiar with its content as well as consult the Argosy University catalog for further information regarding academic dishonesty and plagiarism.

Scholarly writing: The faculty at Argosy University is dedicated to providing a learning environment that supports scholarly and ethical writing, free from academic dishonesty and plagiarism. This includes the proper and appropriate referencing of all sources. You may be asked to submit your course assignments through “Turnitin,” ([www.turnitin.com](http://www.turnitin.com)), an online resource established to help educators develop writing/research skills and detect potential cases of academic dishonesty. Turnitin compares submitted papers to billions of pages of content and provides a comparison report to your instructor. This comparison detects papers that share common information and duplicative language.

### **Americans with Disabilities Act Policy**

It is the policy of Argosy University to make reasonable accommodations for qualified students with disabilities, in accordance with the Americans with Disabilities Act (ADA). If a student with disabilities needs accommodations, the student must notify the Director of Student Services. Procedures for documenting student disability and the development of reasonable accommodations will be provided to the student upon request.

Students will be notified by the Director of Student Services when each request for accommodation is approved or denied in writing via a designated form. To receive accommodation in class, it is the student’s responsibility to present the form (at his or her discretion) to the instructor. In an effort to protect student privacy, the Department of Student Services will not discuss the accommodation needs of any student with instructors. Faculty may not make accommodations for individuals who have not been approved in this manner.

### **The Argosy University Statement Regarding Diversity**

Argosy University prepares students to serve populations with diverse social, ethnic, economic, and educational experiences. Both the academic and training curricula are designed to provide an environment in which students can develop the skills and attitudes essential to working with people from a wide range of backgrounds.

