

University Council Mthens 2642 rgia 30602

#### UNIVERSITY CURRICULUM COMMITTEE - 2011-2012

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Undergraduate Student Representative - Mr. Marshall Mosher

Graduate Student Representative - Mr. Zachary Watne

# Dear Colleagues:

Attached is a proposal to allow EHSC 3060, Introduction to Environmental Health Science, to satisfy the Cultural Diversity requirement for the College of Public Health for consideration by the Full University Curriculum Committee. Included is a copy of the approved course description and topical outline and a copy of the proposed change to the course description and topical outline in CAPA.

Sincerely,

David E. Shipley, Chair University Curriculum Committee

cc:

Provost Jere W. Morehead

Dr. Laura D. Jolly

An Equal Opportunity/Affirmative Action Institution

# The University of Georgia Approved Course

#### 1. COURSE ID: EHSC 3060

#### 2. TITLES

Course Title: Introduction to Environmental Health Science Course Computer Title: INTRO TO ENV HEALTH

#### 3. COURSE DESCRIPTION (must be 50 words or less)

The fundamentals of environmental health, covering energy and ecosystems, air and water pollution, toxic effects of pollution, pollution control, food and agriculture, environmental justice, and consequences of human activities on natural systems. Basic scientific principles that govern natural systems, including the building blocks of life and energy transfer are addressed.

#### 4. GRADING SYSTEM

A-F (Traditional)

#### 5. CREDIT HOURS AND LECTURE/LAB/DISCUSSION HOURS

FIXED		VARIABLE
Credit Hours	3	
Lecture Hours	3	

6. NON-TRADITIONAL FORMAT(if lecture/lab hours or lecture/discussion hours are fewer than credit hours, please justify)

#### 7. REPEAT POLICY

Course cannot be repeated for credit

# 8. DUPLICATE CREDIT STATEMENT(do not list quarter course IDs)

The course will not be open to students who have credit in the following courses:

# 9. REQUIRED PREREQUISITES

#### 10. PREREQUISITE OR COREQUISITE COURSES

# 11. COREQUISITE COURSES

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# 12. PRIMARY DELIVERY MECHANISM (select only one):

Lecture

# 13. COURSE WILL BE OFFERED

Every Year - Fall Spring Summer

#### 14. EFFECTIVE SEMESTER AND YEAR OF CURRENT VERSION OF COURSE

Spring 2012

## 15. ADDITIONAL INFORMATION REQUIRED FOR THE SYLLABUS

#### COURSE OBJECTIVES OR EXPECTED LEARNING OUTCOMES

- 1. Understand how humans interact with the environment and the effects of such interactions on both ecosystem and human health.
- 2. Comprehend general concept in the control of environmental health problems.
- 3. Be able to discuss relevant issues in environmental health from a rational scientific perspective.
- 4. Understand issues of Environmental Justice and its effect on specific races and cultures.
- 5. Address environmental topics from the perspective of two demographic worlds with an emphasis on lesser developed countries in Sub-Saharan Africa.
- 6. Be well-versed in the history of environmental issues to better understand how current legislation has been shaped from past practices.
- 7. Discern scientific information from skewed portrayals of politically charged environmental topics in the media.

## **TOPICAL OUTLINE**

- 1. Overview: Understanding our Environment
- Environmental Systems
- 3. Populations: Species Emergence, Biodiversity
- 4. Human Populations
- 5. Biomes and Ecosystems
- 6. Ecosystem Preservation
- 7. Food and Agriculture
- 8. Emerging Diseases
- 9. Toxins in the Environment
- Toxicology
- 11. Air Quality
- 12. Climate Change
- 13. Water: Resources, Pollution, and Treatment
- 14. Energy: Sources, Conservation

- 15. Solid Waste
- 16. Hazardous Waste
- 17. Environmental Justice
- 18. Cultural and demographic influences on environmental quality: developed versus developing countries
- 19. Risk Assessment
- 20. Environmental Health Policy and Laws

# UNIVERSITY HONOR CODE AND ACADEMIC HONESTY POLICY

UGA Student Honor Code: "I will be academically honest in all of my academic work and will not tolerate academic dishonesty of others." *A Culture of Honesty*, the University's policy and procedures for handling cases of suspected dishonesty, can be found at <a href="https://www.uga.cdu/ovpi.com/www.com/www.uga.cdu/ovpi.com/www.uga.cdu/ovpi.com/www.uga.cdu/ovpi.co

All academic work must meet the standards contained in "A Culture of Honesty." Each student is responsible to inform themselves about those standards before performing any academic work.

# The University of Georgia Course Change Application

#### 1. COURSE ID:

**Current: EHSC 3060** 

# 2. TITLES

#### Current:

Course Title: Introduction to Environmental Health Science Course Computer Title: INTRO TO ENV HEALTH

# 3. COURSE DESCRIPTION (must be 50 words or less)

#### **Current:**

The fundamentals of environmental health, covering energy and ecosystems, air and water pollution, toxic effects of pollution, pollution control, food and agriculture, environmental justice, and consequences of human activities on natural systems. Basic scientific principles that govern natural systems, including the building blocks of life and energy transfer are addressed.

#### Proposed:

The fundamentals of environmental health (EH), covering energy and ecosystems, air and water pollution, toxic effects of pollution, pollution control, food and agriculture, environmental justice, and consequences of human activities on natural systems. Global issues in EH are compared from multiple demographic and cultural perspectives.

#### 4. GRADING SYSTEM

#### **Current:**

A-F (Traditional)

# 5. CREDIT HOURS AND LECTURE/LAB/DISCUSSION HOURS

Current: FIXED VARIABLE

Credit Hours 3 Lecture Hours 3

# 6. NON-TRADITIONAL FORMAT(if lecture/lab hours or lecture/discussion hours are fewer than credit hours, please justify)

**Current:** 

#### 7. REPEAT POLICY

#### **Current:**

Course cannot be repeated for credit

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#### 8. DUPLICATE CREDIT STATEMENT(do not list quarter course IDs)

The course will not be open to students who have credit in the following courses: **Current:** 

# 9. REQUIRED PREREQUISITES

**Current:** 

# 10. PREREQUISITE OR COREQUISITE COURSES

Current:

# 11. COREQUISITE COURSES

**Current:** 

# 12. PRIMARY DELIVERY MECHANISM (select only one):

Current:

Lecture

## 13. COURSE WILL BE OFFERED

Current:

Every Year - Fall Spring Summer

#### 14. DESIRED EFFECTIVE SEMESTER AND YEAR

Semester following UCC approval

# 15. ADDITIONAL INFORMATION REQUIRED FOR THE SYLLABUS

#### COURSE OBJECTIVES OR EXPECTED LEARNING OUTCOMES

#### Current:

- 1. Understand how humans interact with the environment and the effects of such interactions on both ecosystem and human health.
- 2. Comprehend general concept in the control of environmental health problems.
- 3. Be able to discuss relevant issues in environmental health from a rational scientific perspective.
- 4. Understand issues of Environmental Justice and its effect on specific races and cultures.
- 5. Address environmental topics from the perspective of two demographic worlds with an emphasis on lesser developed

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countries in Sub-Saharan Africa.

6. Be well-versed in the history of environmental issues to better understand how current legislation has been shaped from past practices.

7. Discern scientific information from skewed portrayals of politically charged environmental topics in the media.

#### Proposed:

- 1. Understand how humans interact with the environment and the effects of such interactions on both ecosystem and human health. Discuss the importance of environmental preservation from several cultural perspectives within the United States and from developed nations vs. underdeveloped nations.
- 2. Comprehend general concepts in the control of environmental health problems.
- 3. Be able to discuss relevant issues in environmental health from a rational scientific perspective.
- 4. Understand issues of Environmental Justice and its effect on specific races and cultures.
- 5. Address environmental topics from the perspective of multiple demographic worlds, with an emphasis on lesser developed countries in Sub-Saharan Africa.
- 6. Be well-versed in the history of environmental issues to better understand how current legislation has been shaped from past practices.
- 7. Discern scientific information from skewed portrayals of politically charged environmental topics in the media.

#### TOPICAL OUTLINE

#### Current:

- 1. Overview: Understanding our Environment
- 2. Environmental Systems
- Populations: Species Emergence, Biodiversity
- 4. Human Populations
- Biomes and Ecosystems
- Ecosystem Preservation
- Food and Agriculture
- 8. Emerging Diseases
- 9. Toxins in the Environment
- 10. Toxicology
- 11. Air Quality
- 12. Climate Change
- 13. Water: Resources, Pollution, and Treatment
- 14. Energy: Sources, Conservation
- 15. Solid Waste
- 16. Hazardous Waste
- 17. Environmental Justice
- 18. Cultural and demographic influences on environmental quality: developed versus developing countries
- Risk Assessment

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20. Environmental Health Policy and Laws

#### Proposed:

- 1. Overview: Understanding our Environment
- 2. Environmental Systems: Explain systems as complex constructs that obey basic principles of conservation of matter and energy. Review of the basics building blocks of life, including cells and organisms and then their combination into communities, populations and ecosystems.
- 3. Populations: Species Emergence, Biodiversity, Evolution, Tolerance limits.
- 4. Human Populations: Effect of population growth on public and environmental health. Addresses cultural and socio-economic challenges to population control (birth reduction and pronatalist pressures) within the U.S. and on a global level.
- 5. Biomes and Ecosystems: Analysis and distribution of biomes based mainly on temperature and precipitation, but fully characterized based on organisms present and environmental importance.
- 6. Ecosystem Preservation: Modern techniques for preservation are addressed as well as the importance of preservation. Challenges of preservation in underdeveloped countries with economic and cultural practices that damage environmental systems are addressed.
- 7. Food and Agriculture: Common agricultural practices among disparate countries, cultures, and regions discussed. Food security issues explained and compared. Nutritional distribution and related public health issues among races and socio-economic classes in the U.S. are compared to situations in developing nations.
- 8. Emerging Diseases: Infectious diseases are compared at a global level. Risk, epidemiology, vectors are discussed. Treatment disparities among developed nations and lesser developed nations as well as treatment disparities within the U.S. are discussed.
- 9. Toxicology: Toxins in the Environment: a consideration of types of toxins and their movement, distribution and fate in the environment; mechanisms for minimizing the effects of environmental toxins; measuring the toxicity of environmental toxins; the concept of risk assessment and getting different members of the public to accept it; and, establishing public policy regarding the fate and health hazards associated with environmental toxins. Environmental justice issues related to toxin exposure are discussed.
- 10. Air Quality: Discussion of the growing consensus that industrial emissions such as carbon dioxide and toxic emissions are contributing to global climate change and disease. Involuntary risks and well as Environmental Justice relating to criteria pollutants is discussed.
- 12. Climate Change: Greenhouse effect, greenhouse gases, carbon emissions, public health concerns related to climate change, policy relation to emissions.
- 13. Water: Resources, Pollution, and Treatment. Includes differences in beliefs about the importance of water quality, water scarcity, and water use that can cause conflict (locally and globally) and harm.
- 14. Energy: Sources, Conservation. Includes fossil fuels, nuclear power, solar energy, biomass, energy from the Earth's interior, and other sources of energy. Discussion of the conservation of energy that is already available and the development of new energy sources and energy for future uses

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will continue to be major sources of challenges for society. Energy disparities in production and use on in developed vs. lesser developed nations is explained.

15. Solid Waste: Fates of non-hazardous waste in regions of the US and the world (landfills, waste-to-energy, incineration, resource recovery/recycling and composting). In-depth explanations of RCRA history and Subtitle D technical requirements.

16. Hazardous Waste: History of hazardous waste in the US and abroad is illustrated with case studies. RCRA Subtitle C "cradle to grave" manifest system and HSWA. Environmental justice pertaining to waste disposal is addressed.

17. Environmental Justice: The fair treatment and meaningful involvement of all people regardless of race, color, sex, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations, and policies is discussed from an environmental and public health perspective.

18. Cultural and demographic influences on environmental quality: Developed versus developing countries.

19. Risk Assessment: Voluntary vs. involuntary risks, risk assessment, exposure studies, and epidemiology.

20. Environmental Health Policy and Laws: Review of current environmental policy in the U.S.

#### UNIVERSITY HONOR CODE AND ACADEMIC HONESTY POLICY

UGA Student Honor Code: "I will be academically honest in all of my academic work and will not tolerate academic dishonesty of others." *A Culture of Honesty*, the University's policy and procedures for handling cases of suspected dishonesty, can be found at <a href="https://www.uga.edu/ovpi.">www.uga.edu/ovpi</a>. Every course syllabus should include the instructor's expectations related to academic integrity.

#### **Current:**

All academic work must meet the standards contained in "A Culture of Honesty." Each student is responsible to inform themselves about those standards before performing any academic work.

# ORIGINATOR OF REQUEST

	First Name	Last Name	Email
Faculty Member	Marsha	Black	mblack@uga.edu
	Department:College of Public Health	School/College:College of Public Health	Date:April 23, 2012

#### ORIGINATING UNIT APPROVALS

College Committee: College Curriculum Committee College Committee Chair: Jessica Muilenburg

Date: April 24, 2012

College/School Dean: Phillip Williams

Date: April 24, 2012