



The University of Georgia

College of Public Health

Department of Environmental Health Sciences

Undergraduate Handbook

2009

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DEPARTMENT OF ENVIRONMENTAL HEALTH SCIENCE

The University of Georgia, College of Public Health
 206 Environmental Health Science Building, Athens, GA 30602-2102
 Phone: (706) 542-2454 FAX: (706) 542-7472 <http://www.publichealth.uga.edu/ehs>

FULL-TIME FACULTY

<p>Jia-Sheng Wang jswang@uga.edu Professor and Department Head (1982) Shanghai First Medical College (1994) Boston University</p> <p><i>Course Taught:</i> EHSC 7060: Fundamental of Environmental Health Sciences; EHSC 8210: Cancer Etiology and Prevention</p>	<p><i>Research Interests:</i> Molecular toxicology of environmental toxicants; development and validation of molecular biomarkers for environmental carcinogens; molecular epidemiology and chemoprevention of human diseases linked to exposure to environmental toxicants, especially for human cancer risks; and studying gene-environment interactions using genomic, proteomic and metabolomic techniques.</p>
<p>Marsha C. Black mblack@uga.edu Associate Professor (1989) University of Tennessee</p> <p><i>Courses Taught:</i> EHSC 4610/6610: Water Pollution and Human Health EHSC 8610: Aquatic Toxicology</p>	<p><i>Research Interests:</i> Aquatic toxicology and water quality. Development of biomarkers in fish and freshwater mussels; application of biomarkers in field exposures to detect contaminant bioavailability and toxicity. Differential toxicity of chiral compounds. Ecotoxicity of pharmaceuticals and emerging pollutants in the aquatic environment</p>
<p>Jeffrey W. Fisher jwfisher@uga.edu Professor Ph.D. (1987) Miami University</p> <p><i>Courses Taught:</i> EHSC 8220</p>	<p><i>Research Interests:</i> Research on inhalation and oral uptake, metabolism, distribution and excretion of organic pollutants in mammals. Formulates physiologically based mathematical models to simulate toxicokinetic behavior of organic xenobiotics in mammals.</p>
<p>Travis Glenn travisg@uga.edu Associate Professor Ph.D. (1997) University of Maryland</p> <p><i>Courses Taught:</i> EHSC 4710/6710: Environmental Biotechnology EHSC 8450: Genome Technologies</p>	<p><i>Research Interests:</i> Developing and using DNA techniques and technologies to address problems in environmental health & remediation, ecology, evolution, toxicology, and natural resource management. Focal areas are the use of massively parallel genomic approaches in environmental genomics, the study of germ-line mutations, and other systems of direct relevance to human and environmental health.</p>
<p>Erin K. Lipp elipp@uga.edu Associate Professor Ph.D. (1999) University of South Florida</p> <p><i>Courses Taught:</i> EHSC 4310/6310: Environmental Microbiology EHSC (MARS) 8410: Oceans and Human Health EHSC 8310: Advanced Topics in Aquatic Microbiology, Health and the Environment</p>	<p><i>Research Interests:</i> Dr. Lipp's research focus is the ecology of human pathogens in ambient waters and the role of environmental exposures in disease transmission. Her research incorporates molecular biology, microbial ecology, epidemiology and climate research to better understand the fate of bacteria and viruses introduced from wastewater to aquatic environments and their potential for transmission to humans and other hosts</p>
<p>Luke P. Naeher lnaeher@uga.edu Associate Professor Ph.D. (1998) Yale University</p> <p><i>Courses Taught:</i></p>	<p><i>Research Interests:</i> Human exposure assessment, including biomarkers of chemical exposure, and environmental epidemiological investigations relating to environmental chemical exposures, including air pollution, pesticides and other agriculture-related exposures</p>

<p>EHSC 3060: Introduction to Environmental Health EHSC 4080/6080: Environmental Air Quality EHSC 7060: Fundamentals of EHS</p>	
<p>Mary Alice Smith masmith@uga.edu Associate Professor Ph.D. (1990) University of Arkansas for Medical Sciences</p> <p><i>Courses Taught:</i> EHSC 4490/6490: Environmental Toxicology EHSC 8510: Risk Assessment and Communication</p>	<p><i>Research Interests:</i> Environmental toxicology and risk assessment. Basic and applied research in toxicology; effects of toxicants on reproduction and development; toxicity to developing skeletal system; environmental and microbial risk assessment methodology</p>
<p>Phillip L. Williams pwilliam@uga.edu Interim Dean, College of Public Health Georgia Power Professor of Environmental Health Ph.D. (1988) Georgia Institute of Technology</p> <p><i>Courses Taught:</i> EHSC 8930: Chemical Toxicology</p>	<p><i>Research Interests:</i> Occupational and environmental toxicology. Applied and basic research in industrial hygiene; development of occupational and environmental chemical exposure standards; ambient air monitoring. Use of nematodes as alternative toxicological test models.</p>
<p>Anne Marie Zimeri zimeri@uga.edu Lecturer, Undergraduate Coordinator, Internship Coordinator Ph.D. (2004) University of Georgia</p> <p><i>Courses Taught:</i> EHSC 3060: Introduction to Environmental Health Sciences EHSC 4090/6090: Bioremediation EHSC 4150/6150: Solid and Hazardous Waste Management EHSC 4700/6700: Genetic Application in EHS</p>	<p><i>Research Interests:</i> Education in Environmental health with an emphasis on outreach and service learning as well as introducing instructional technology into the classroom and community.</p>

PART-TIME FACULTY

Mike Neill
United State EPA Science and Ecosystem Support Division

Course Lecturer:
EHSC 4150/6150: Solid and Hazardous Waste Management

E-Mail: Neill.mike@EPAMAIL.epa.gov

Additional EHS Contacts

EHS Staff:

Tammy Ray	tdixon@uga.edu	542-0527	Office Business Manager	Room 205
Ella M. Willingham	emw123@uga.edu	542-2454	Administrative Asst. II	Room 206

EHS Undergraduate Coordinator

Dr. Anne Marie Zimeri	zimeri@uga.edu	542-7796	Lecturer	Room 203
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Graduate Students:

Kwaku Agyekum	kwaku03@uga.edu		Leena Malayil	leena@uga.edu
Adwoa Agyepong	d3d3@uga.edu		Shep Martin	sam506@gmail.com
Suzy Baird	sbaird@uga.edu		Beth Mote	blkelley@uga.edu
Chris Fitzgerald	fitz.christopher@gmail.com		Adetona Olorunfemi	femiadetona@yahoo.com
Carrie Futch	futchjc0@gmail.com		Arena Richardson	nauchett@uga.edu
Monica Griffin	monicalg@uga.edu		Susie Ritger	sritger@gmail.com
Gideon St. Helen	noedig@uga.edu		Brad Temple	bltemple@uga.edu
Kelvin Horton	dth9@cdc.gov		Jeff Turner	jturner8@uga.edu
Ghanashyan Joshi	gs_joshi@hotmail.com		Ethell Vereen	evereen@uga.edu
Jessica Joyner	jljoyner@uga.edu		Jason Wetrich	westrich@uga.edu
Suyang Li	dayangwa@uga.edu		Denita Williams	
				williamd@rx.uga.edu
Ma, Hongbo	mah77@uga.edu		Li Xu	susanxu@uga.edu

COLLEGE OF PUBLIC HEALTH CONTACTS

Heather I. McEachern	hivey@uga.edu	542-3187	Degree Program Specialist	N124 Coverdell
Sandra McPeake	smcpeake@uga.edu	542-0939	Secretary to the Dean	N130A Coverdell
Maria Cleghorne	cphoit@uga.edu	255-7225	Computer Support	N122D
Benjamin Morrison	cphoit@uga.edu	296-4576	Computer Support	Coverdell
Kathy Shelnut	kathys@uga.edu	542-4118	Business Manager	N130 Coverdell
Deanna Whiddon	dwhiddon@uga.edu	542-5672	Accountant	S151 Coverdell

WHAT IS ENVIRONMENTAL HEALTH SCIENCE?

Environmental Health Science is the study of the biological, chemical or physical agents occurring naturally or introduced into the environment and their effects on human health and the environment. It includes a study of human activities, a vital component in our complex ecosystem and serves the general welfare by safeguarding and improving the quality of food, shelter, air, water and other natural resources.

Environmental Health Science involves multiple scientific fields of study. The first two years are spent taking basic and advanced courses in biology, chemistry, physics, math, microbiology, in addition to other UGA core requirements. During the junior and senior years, students take applied environmental health science courses in such areas as air, water and noise pollution; solid and hazardous waste management; environmental toxicology; industrial hygiene; food microbiology; epidemiology; and public health law. In addition to the required courses, students have considerable freedom in choosing additional courses of special interest (Major Electives). Students may choose courses among offerings from EHS and a variety of other departments to focus on a specialty area, including Industrial Hygiene, Environmental Protection or Public Health.

The EHS major is a rigorous, science-based, applied curriculum that prepares students for careers in environmental fields. It can also be used as a step to an advanced degree in many fields including environmental health, industrial hygiene, toxicology, public health, epidemiology, ecology and environmental engineering, and will satisfy entrance requirements for professional degree programs such as medicine, veterinary medicine, dentistry, optometry and pharmacy. Students who successfully complete the program of study receive the Bachelor of Science in Environmental Health (B.S.E.H.) Degree. The degree program is nationally accredited and is the only undergraduate Environmental Health Science degree in Georgia.

This major prepares students for the many graduate programs including the following:

- Environmental Health Science (MS, PhD, ScD)
- Industrial Hygiene (MS, PhD)
- Toxicology, Environmental Toxicology, Ecotoxicology (MS, PhD)
- Public Health (MPH; DPH)
- Epidemiology (MS, PhD)
- Environmental Chemistry (MS, PhD)
- Ecology (MS, PhD)
- Environmental Science (MS, PhD)

In addition, the basic science training for EHS majors will satisfy entrance requirements for professional degree programs such as medicine (MD, OD), veterinary medicine (DVM), dentistry (DDS; DMD), optometry (DO) and pharmacy (PharmD).

D.S.E.H. ADVISOR CHECK SHEET (June 2008)

I: FOUNDATION COURSES (9 hr)

ENGL 1101 English 3 ____
 ENGL 1102 English 3 ____
 MATH 1113 Pre-calculus 3 ____

or MIBO 3000/3000L Intro. Applied Micro 3-4 ____
 PBHL 3100 Introduction to Public Health 3 ____
 PHYS 1112/1112L Introductory Physics II..... 4 ____

II: SCIENCES (8 hr)**Physical Sciences (4 hr)**

CHEM 1211 Freshman Chemistry I 3 ____
 CHEM 1211L (Lab) Freshman Chemistry I..... 1 ____

Life Sciences (4 hr)

BIOL 1107/1107L Principles of Biology I 4 ____

III. QUANTITATIVE REASONING (4 hr)

BIOS 2010/2010L Biostatistics for Public Health 4 ____

IV. WORLD LANGUAGE, CULTURE, HUMANITIES, AND THE ARTS (12 hr)**World Languages and Culture (9 hr)**

(See UGA Bulletin for current list)

_____ ____
 _____ ____
 _____ ____

Humanities and the Arts (3 hr)

SPCM 1100 Introduction to Public Speaking ____

V. SOCIAL SCIENCES (9 hr)

(See UGA Bulletin for current list)

POLS 1101 American Government 3 ____
 HIST 2111 American History to 1865
 or HIST 2112 American History since 1865 3 ____
 _____ ____
 _____ ____

VI. RELATED TO MAJOR (20 hr)

BIOL 1108/1108L Principles of Biology II 4 ____
 CBIO 2210/2210L Human Physiology 4 ____
 CHEM 1212 Freshman Chemistry II 3 ____
 CHEM 1212L (Lab) Freshman Chemistry II 1 ____
 CHEM 2211 Modern Organic Chemistry I 3 ____
 CHEM 2211L (Lab) Modern Organic Chem I 1 ____
 PHYS 1111/1111L Introductory Physics I 4 ____

MAJOR REQUIREMENTS/EHSC CORE (36-37 hr)

EHSC 3060 Introduction to Environ. Health 3 ____
 EHSC 3800 Environ. Health Seminar 1 ____
 EHSC 3910 Internship in Environ. Health Science 3 ____
 EHSC 4080 Environmental Air Quality 3 ____
 EHSC 4150 Solid and Hazardous Waste Mgmt. 3 ____
 EHSC 4490 Environmental Toxicology 3 ____
 EPID 4070 Fundamentals of Epidemiology 3 ____
 AAEC(EHSC) 4250 Env. & Public Health Law ... 3 ____
 CHEM 2212 Modern Organic Chem. II 3 ____
 CHEM 2212L(Lab) Modern Organic Chem. II 1 ____
 MIBO 3500 Introductory Microbiology

COMMENTS OR SUBSTITUTIONS:**MAJOR ELECTIVES/Special Requirements (18 hr)**

Choose 18 hr. from the following list of EHSC and related courses. At least two courses must be EHSC lecture courses (excluding EHSC 3700 and EHSC 3910). Other non-EHSC courses or EHSC non-lecture courses may satisfy the remaining hours of this requirement, but only upon the approval of your EHS academic advisor.

EHSC Major Electives

EHSC 4090 Bioremediation 3 ____
 EHSC 4100/4100L Industrial Hygiene 3 ____
 EHSC 4310/4310L Environ. Microbiology 4 ____
 EHSC 4350/4350L Environ. Chemistry * ____
 EHSC 4610 Water Pollution and Human Health 3 ____
 EHSC 4700 Genetic Applications in EHS 3 ____
 EHSC 4710/4710L Environmental Biotechnology 3 ____
 EHSC 4400 Environ. Issues in Developing World 3 ____
 EHSC(ENTO) 3590/3590L Urban Entomology. ... 4 ____
 EHSC(ENTO) 4050/4050L Biomonitoring Invert. * ____
 EHSC(ENTO) 4060 Ecotoxicology 3 ____
 EHSC(FDST) 4320/4320L Food Sanitation 3 ____
 (* not currently offered)

Non-EHSC Major Electives/Special Problems

Choose additional hours to equal a total of 18 hours Major Electives from the list of approved non-EHSC elective courses or EHSC non-lecture courses (e.g., EHSC 3700). Other courses may be added upon approval of your EHS advisor. (See reverse side for list of approved courses.)

EHSC 3700 Special Problems 1-3 ____

GENERAL ELECTIVES (3-4 hr)

_____ ____
 _____ ____

PHYSICAL EDUCATION (1 hr)

PEDB _____ Physical Education Basic ____

OTHER GRADUATION REQUIREMENTS

EHSC Special requirements (2 courses)	_____
Cultural Diversity (matriculating after FA 2002)	_____
History	_____
U.S. Constitution	_____
Georgia Constitution	_____
Regents' Test - Read	_____
Regents' Test - Essay	_____
≥ 39 h in Upper division courses	_____

Approved Non-EHSC Courses for Major Electives

EHSC 3700 Special Problems (F SP SU)	FORS 4330/4330L Water Quality Mgmt Fish and Aquacul (F)
AAEC 4650 Environmental Economics (SP)	FORS 4370/4370L Fish Physiology (F)
AAEC 4720 Food Security, Econ. Development & Environ (F)	GEOG 4370/4370L Geog Info Sci (GIS) (F SP SU)
AAEC 4800 Water Resource Economics (F)	GEOG 4470-Analysis in GIS (F SP)
BCMB 3100 Intro to Biochemistry (F SP SU)	GEOL 3150 Coastal Processes/Conservation (F-odd)
BCMC 4200 Biotechnology (SP)	GEOL 3220 Water Issues in GA (F)
BIOL 3110L Basic Skills in the Laboratory (F SP SU)	GEOL 4220 Hydrogeology (F)
CHEM 2300/2300L Quant. Analysis Chemistry (F SP)	HPRB 3020 Intro to Health Promotion/Education (F SP)
CHEM 3300 Modern Instrumental Methods (FA SP)	HPRB 3700 Community Health (F SP)
CRSS(FORS) 3060/3060L Soils and Hydrology (F SP)	HPRB 4450 Occupational Safety (FA SP)
CRSS 4510 Contaminants in Soil and Water (FA SP)	IDIS 4220 Pathogenic Bacteria (F)
CRSS 4580/4580L Soil Erosion and Conservation (F)	MARS 3000 Coastal Zone and Marine Law (F)
CRSS 4660/4660L Chem Anal of Environ Samples (F SP)	MARS 3450/3450L Marine Biology (SP)
CRSS 4670 Environmental Soil Chemistry (F)	MATH 2200 Analytic Geometry/Calculus (F SP SU)
CRSS(ECOL) 4930 Agroecol Tropical America (SP)	PBIO 4670 Plant Molec Responses Environ (F-even)
CRSS(ECOL) 4930 Agroecol Tropical America Fld Trp (SU)	POUL 3000/3000L Lab Exercises in Biomed Sci (SP)
ECOL(BIOL)3500/3500L Ecology (F SP SU)	POUL 4330 Basic Mycotoxicology (SP)
ECOL(BIOL)3510 Ecology Laboratory (F SP)	SPCM 3320 Environmental Communication (SP)
ECOL 3520 Ecological Applications (SP)	SPCM 4610 Health Communication (F)
ECOL 3530/3530D Conservation Ecology (F)	SOCI 3400 Environmental Sociology (F SP)
ECOL 3700 Organic Agriculture (SU)	
ECOL 4120H Ecology of Global Change (SP)	
ECOL(FORS) 4310/4310L Limnology (F)	
ECOL 4560 Science and Art of Conservation (SU)	
EETH 4020 Readings in Environmental Ethics (*)	
EETH 4200 Environmental Concepts (F)	
ENGR 4480 Instrumentation for Environmental Quality (F)	
ENTO 4250/4250L Pesticides/Transgenic Crops (SP)	
ENTO 3650/3650L Medical Entomology (SP)	
FORS 3910/3910L Spatial Info in Natural Res (FA SP)	
FORS 4110 Forest Hydrology (SP)	
FORS 4120 Quantitative Methods in Hydrology (F)	
FORS 4130 Field Methods in Hydrology (SP)	
FORS 4140/4140L Introduction to Wetlands (SP)	
FORS 4160/4160L Environmental Monitoring (F)	

COLLEGE-WIDE REQUIREMENTS

In addition to completing the University of Georgia Core Curriculum, all recipients of degrees from the College of Public Health are expected to satisfy the following requirements. Courses used to fulfill the Core Curriculum may simultaneously satisfy these requirements where applicable.

(NOTE: The University System of Georgia mandates that no transfer student may be required to take more credit hours for a degree than are required of native students. Transfer students who have completed the Core Curriculum at another USG institution without taking courses satisfying these requirements, and who have insufficient elective hours available to satisfy these requirements upon first enrolling at the University of Georgia, may petition the College for relief from one or more of these requirements.)

- Students in the Department of Environmental Health Science within the College of Public Health are expected to complete ([CHEM 1211](#) and [CHEM 1211L](#)) or [MATH 2200](#), [BIOL 1107-1107L](#), and [MATH 1113](#).
- Students in the Department of Health Promotion and Behavior within the College of Public Health are expected to complete [CBIO 2200-2200L](#) and [CBIO 2210-2210L](#), and [HPRB 1710](#).
- Students in the College of Public Health are expected to demonstrate proficiency in speech communication and delivery by completing, [SPCM 1100](#), or a program of study approved by their major department.
- A minimum of 120 hours (plus one hour of [PEDB](#)) is required to graduate. Of these, 45 of the last 60 must be completed in residency.
- Students must complete 21 hours of upper division courses in the major field, and at least 39 hours of upper-division course work overall.
- No more than 6 hours of internship credit may be applied towards graduation.

UGA General Education Core Curriculum – Fall 2008

(with Honors equivalents)

I. Foundation Courses (9 hours)

ENGL 1101

ENGL 1102 or ENGL 1102E or ENGL 1102M or ENGL 1050H or ENGL 1060H

MATH 1101 or MATH 1113 or MATH 2200 or MATH 2250 or MATH 2300H or MATH 2400
or MATH 2400H or MATH 2410 or MATH 2410H

IV. World Languages and Culture, Humanities and the Arts (12 hours)

World Languages and Culture (9 hours)

AFST(ANTH)(CMLT) (GEOG)(HIST)(SOCl) 2100	FREN 2960	INDO 1001
AMHA(AFST) 1001	GEOG 1101	ITAL 1001
AMHA(AFST) 1002	GREK 1001	ITAL 1002
AMHA(AFST) 2001	GREK 1002	ITAL 1003
AMHA(AFST) 2002	GREK 2001	ITAL 2001
ANTH 1102	GREK 2002	ITAL 2002
ANTH 2120H	GREK 2050	ITAL 2500
ARAB 1001	GREK 2060	ITAL 2600
ARAB 1002	GRMN 1001	ITAL 2950
ARAB 2003	GRMN 1002	ITAL 2960
ARAB 2004	GRMN 1110	ITAL 2970
ARHI 2300	GRMN 1140H	JPNS 1001
ARHI 2400*	GRMN 2001	JPNS 1002
CHNS 1001	GRMN 2002	JPNS 1100
CHNS 1002	GRMN 2110	JPNS 2001
CHNS 1008	GRMN 2140H	JPNS 2002
CHNS 1009	HEBR 1001	KREN 1001
CHNS 2001	HEBR 1002	KREN 1002
CHNS 2002	HEBR 2003	KREN 2001
CHNS 2010	HEBR 2004	KREN 2002
CHNS 2020	HIST 2221	LACS 2001
CLAS(LING) 2010	HIST 2222	LACS 2002
CMLT(AFAM) 2600	HIST 2301	LAND 2510
CMLT 2610H	HIST 2302	LAND 2520
FREN 1001	HIST 2311H	LATN 1001
FREN 1002	HIST 2312H	LATN 1002
FREN 1110	HIST(AFST) 2501	LATN 2001
FREN 2001	HIST 2502	LATN 2002
FREN 2002	HIST 2600	LATN 2050
FREN 2030	HIST 2701	LATN 2060
FREN 2120H	HIST 2701H	LING 2100
FREN 2500	HIST 2702	LING 2100H
FREN 2600	HIST 2702H	MAND 1010
SCAN 1002	HNDI 1001	MAND 1020
SLAV 1001	HNDI 1002	MAND 2010
SLAV 1002	HNDI 2001-2001L	MAND 2020
	HNDI 2002	PERS 1001
	RELI 1006	PERS 1002

SPAN 1001 SPAN 1002 SPAN 1110 SPAN 2001 SPAN 2002 SPAN 2030 SPAN 2120H SPAN 2550 SWAH 1010 SWAH 1020 SWAH 2010 SWAH 2020 TURK 1001 VIET 1001	RELI 2001H RELI 2002H ROML 2550 RUSS 1001 RUSS 1002 RUSS 2001 RUSS 2002 RUSS 2050 SCAN 1001 VIET 1002 VIET 2001 YORB 1010 YORB(AFAM) 1020 YORB(AFAM) 2010 YORB 2020	PORT 1001 PORT 1002 PORT 2001 PORT 2002 PORT 2600 RELI 1001 RELI 1002 ZULU(AFAM) 1001 ZULU 1002 ZULU(AFAM) 2001 ZULU(AFAM) 2002
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Humanities and the Arts (3 hours)

ARHI 2300 ARHI 2400* ARTS 2000 ARTS 2050 CLAS 1000 CLAS 1000H CLAS 1010 CLAS 1010H CLAS 1020 CLAS 1020H CMLT 2111 CMLT 2210 CMLT 2212 CMLT 2220 CMLT 2250H CMLT 2260H CMLT 2270H CMLT 2280H CMLT 2400 CMLT 2410H CMLT 2500 CMLT(AFAM) 2600 CMLT 2610H DANC 2010 DRAM 2000 DRAM 2100H DRAM 2110 DRAM 2120	DRAM 2121H DRAM 2130 DRAM 2131H ENGL 2310 ENGL 2320 ENGL 2330 ENGL 2340 ENGL 2350H ENGL 2360H ENGL 2370H ENGL 2380H ENGL 2390H ENGL 2400 FREN 2700 GRMN 2300 LAND 1500 LAND 2510 LAND 2520 MUSI 2020 MUSI 2030 MUSI 2040 MUSI 2050 MUSI 2060 MUSI 2080 MUSI 2200H PHIL 1000	PHIL 1000H PHIL 1500 PHIL 1500H RELI 1003 RELI 2003H ROML 2550 RUSS 2050 SPAN 2550 SPCM 1010 SPCM 1100 SPCM 1500 SPCM 2150H SPCM 2550H
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V. Social Sciences (9 hours)

AAEC 2060 AAEC 2580 AFAM 2000 AFAM 2000H AFST(ANTH)(CMLT) (GEOG)(HIST)(SOCl) 2100 ANTH 1102 ANTH 2070H-2070L ANTH 2120H CHFD 2100* CHFD 2200 CLAS(ANTH) 2000 CLAS 2110 CLAS 2113 ECON 2100 ECON 2105 ECON 2105H ECON 2106 ECON 2106H ECON 2200 ECON 2200H FANR 2100	GEOG 1101 GEOG 1103 GEOG 1125 GEOG 2010H-2010D GEOG 2130H-2130D GEOG 2250H-2250D GEOG 2610 HACE 1110* HIST 2050H HIST 2051 HIST(AFST) 2052 HIST 2111 HIST 2111H HIST 2111E HIST 2112 HIST 2112H HIST 2221 HIST 2222 HIST 2301 HIST 2302 HIST 2311H HIST 2312H HIST(AFST) 2501 HIST 2502 WMST 1110 WMST 1110H WMST 2010 WMST 2010H	HIST 2600 HIST 2701 HIST 2701H HIST 2702 HIST 2702H INTL 1100 INTL 1100H LACS 2001 LACS 2002 PHIL 2200 PHIL 2200H PHIL 2400 PHIL 2400H POLS 1101 POLS 1105H PSYC 1030H PSYC 1101 PSYC 1101E RELI(NAMS) 2004 RELI(NAMS) 2004H RELI(AFAM) 2005 RLST 2000 SOCl 1101 SOCl 1101H SOCl(AFAM) 2020 SOCl 2420 SOCl 2470 SOCl 2600 SOCl(AFAM) 2820
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Advising Appointments:

Ms. Ella Willingham will contact students several weeks prior to registration to notify them that advising will begin. Students can schedule their appointments by signing up for a time slot on their advisor’s calendar that will be posted on the bulleting board outside of room 206. Be prepared for the advisement appointment. Students should be prepared to discuss course selection, and current progress prior to being cleared to register. Appointments will typically require 30 minutes of time

Degree requirement sheets for a BSEH degree are provided
in a packet near the bulletin board by Room 205 and online at
<http://www.uga.edu/publichealth/forms/BSEHchecklist.pdf>

INTERNSHIPS:

EHS students gain practical experience and problem solving skills through internships, which are an integral part of the EHS degree program at UGA. Students are given the opportunity to work as environmental health interns in industry and federal, state or local government agencies. Institutions where EHS students have completed internships or co-ops include the US Environmental Protection Agency (EPA), Center for Disease Control (CDC), Agency for Toxic Substances & Disease Registry (ATSDR), Georgia Power, CIBA Vision, Boeing, Inc., Lucent Technologies, Duracell USA, Sony Music, and several environmental consulting firms. Internships have also been completed at state and local agencies, including the GA Environmental Protection Division (EPD) and county health departments. EHS students can compete for national internships sponsored by the U.S. Public Health Service (e.g., CoSTEP Internships), Department of Energy, Oak Ridge Institute for Science and Education (ORISE), the Chemical Industry Institute of Toxicology (CIIT), the Society of Toxicology and other approved agencies or institutions. Please note that for these competitive internships, applications are often due 6 months prior to the internship start date. Please plan accordingly! Most interns receive a stipend (usually \$7-15 per hour) from the host agency or institution and can work from 12 to 40 hours per week.

To apply for an EHS Internship, students must be an ***EHS major in good academic standing and have completed a minimum of 6 hours of upper-level EHS classes (including EHSC 3060)***. It is recommended that students wait until they have taken several upper-level EHS courses before doing an internship. Students should make an appointment with Dr. Zimeri, EHS Internship Coordinator, a full semester prior to the semester of the desired internship to complete the internship paperwork and discuss internship options and application procedures. No credit will be given for internships taken without prior completion of the EHS Internship paperwork, written approval by the Internship Coordinator, and enrollment in at least 3 h of EHSC 3910. Hour equivalents for EHS internships are as follows:

Hours Credit (EHSC 3910)	Total # Contact Hours (per semester)	Contact Hours/week (based on a 15 week semester)
3	180	12
6	300	20
9*	600	40

*Note that only 6 hours of internship can be applied toward a degree program, but all hours are averaged into a student's GPA..

STUDY ABROAD PROGRAMS:

Many Study-Abroad programs that may meet EHS requirements for Major Electives credit (subject to advisor approval) are available through UGA, including Study Abroad in Vietnam (new for Maymester 2006), AgroEcology in Tropical America - Guatemala (odd-numbered years), Costa Rica (even-numbered years), Agriculture and Ecology of Tropical America - Pernambuco Brazil, Costa Rica Ecology Program, Costa Rica Study Abroad, Sustainable Agriculture in Mediterranean Regions.

Unique programs that focus on natural resources are also available in Australia and New Zealand. Check out the **Study Abroad Fair**, held every fall Semester for more details on study abroad experiences.

COOPERATIVE EDUCATION:

EHS majors may elect to participate in an approved co-op program, instead of an internship. In most co-op programs students will alternate work and school semesters for a specified period of time, giving a student more than one semester experience in a work environment.

OTHER LEARNING OPPORTUNITIES:

Students may conduct research projects with EHS faculty under the Special Problems class, EHSC 3700 (1-3 hours/semester). If a student desires to conduct independent research with an EHS faculty member, s/he must first meet with the faculty member to determine if projects are available and design a project commensurate with the number of hours to be taken. The faculty (via the EHS office staff) will then clear the student for enrollment in their section of EHSC 3700.

Environmental Ethics Certificate Program

Introduction

The Undergraduate Certificate was designed to train undergraduate students to make decisions about environmental problems based not only on traditional logic, but also on philosophical, social, political, legal, economic, scientific, and aesthetic considerations. Consequently, undergraduate students in the Certificate Program benefit by viewing environmental issues from an interdisciplinary perspective.

The Undergraduate Certificate in Environmental Ethics began with the 1994-95 academic year and currently enrolls 55 undergraduate students. The Undergraduate Program is patterned after the successful Graduate Program and, like it, was the first certificate program of its kind in the United States.

Admission Requirements

To be eligible for admission to the EECF for an Undergraduate Certificate, a student must: (a) be an undergraduate student at the University of Georgia and (b) have completed at least two semesters or three quarters of full-time enrollment (must be a rising sophomore). The Undergraduate Certificate Program is an interdisciplinary program and is not associated with any particular College or School. This means that, providing the two criteria for admission are met, students from any college, school, or discipline are eligible for admission. There is a four-year time limit to obtain the certificate. Under certain circumstances, the time limit may be extended. Appeals may be made to the Undergraduate Coordinator.

Program of Study

Students show an interest in the EECF by filling out a simple application form. There is no application fee. Students complete a program of study form that lists the courses which they intend to take for their Certificate. Where applicable, courses taken by a student in the pursuit of a degree or other programs may be applied to the Undergraduate Certificate and vice versa. After the form is completed and signed by the Undergraduate Coordinator, students are admitted into the Undergraduate Certificate Program.

After the courses listed on the Program of Study are satisfactorily identified, the Undergraduate Coordinator assigns each undergraduate student to an EECF faculty member for the required paper. At least one EECF faculty member must advise an undergraduate paper. An undergraduate student may select an advisor for his or her paper who is not a member of the EECF faculty. In that case, the student must also have an additional reader who is a member of the EECF faculty.

Course Requirements

The Undergraduate Certificate requires a minimum of 18 semester credit hours, including 7 or 8 hours in three required core courses, 7 or 8 hours in approved elective courses, and 3 hours for the required paper. Wherever a course is cross-listed with Environmental Ethics (EETH) and another department (e.g., EETH/PHIL 4220, Environmental Ethics), students should register under EETH. In the case of transfers, no more than 6 credit hours may be applied towards an Undergraduate Certificate from an institution outside the University of Georgia System. All EETH courses require Permission of Department (POD) to register.

Required Courses

- One course in ecology:

EETH/ECOL 4200 (Ecological Values) - 4 credit hours - This course is designed for non-science majors and has no prerequisites. It is also the preferred ecology course for undergraduates in the Certificate Program.

ECOL/BIOL 3500 (Ecology) - 4 credit hours - has prerequisites

FORS 3020 (Forest Ecology) - 4 credit hours - has prerequisites

LAND 2310 (Landscape Ecology) - 3 credit hours - has prerequisites

- One course in ethics:

EETH 3230 (Environmental Values and Policy) - 3 credit hours - This course has no prerequisites and is the preferred ethics course for undergraduates in the Certificate Program.

EETH/PHIL 4220 (Environmental Ethics) - 3 credit hours - has prerequisites

- One seminar course:

EETH 4000 (Environmental Ethics Seminar) - 1 credit hour - This course is taught on Tuesday evenings.

- One independent study course:

EETH 4010 (Undergraduate Research) - 3 credit hours - or independent study through the student's home department. This is the course for the required environmental ethics paper.

Elective Courses

A minimum of 7 credit hours in courses from the List of Standing Electives is required.

Substitutions to the List of Standing Electives are possible, but they must be approved by the Undergraduate Coordinator. To obtain approval, students must submit a letter to the Undergraduate Coordinator that includes the syllabus of the course and evidence of its environmental and ethical content. A course should show a reasonable percentage of class time devoted to environmental and ethical issues before a substitution is allowed.

Required Paper

The Undergraduate Certificate Program requires that EECF students write a paper for 3 credit hours of independent study. The purpose of the paper is to integrate students' course work into a focused analysis of an environmental ethics topic. Papers must be written in good English usage and style, with footnotes and references.

The paper topic is chosen jointly by students and faculty. For undergraduates, it is required that at least one EECF faculty member advise or review the paper. Thus, an EECF faculty member usually serves as the advisor for an undergraduate paper and assigns a grade for the 3 hours of required credit. An undergraduate student may select an advisor for his or her paper who is not a member of the EECF faculty. In that case, the student must also have an additional reader who is a member of the EECF

faculty. Credit for the paper is obtained by registering for 3 hours of special topics research in the appropriate department (usually that of the advisor) or EETH 4010 (Undergraduate Research).

Because of the high standards demanded by the EECF faculty, completing the paper is the hardest part of the Certificate Program. Since its inception in the 1994-95 academic year, the Undergraduate Program has accepted 137 students, 55 are currently enrolled, and 20 have completed the program. Thus, excluding those currently enrolled, the Undergraduate Program has a completion rate of approximately 24%. Most of the students who failed to complete the Program did so because they failed to complete the required paper.

Historically, students have had three major problems in completing the required paper. First, students wait too long to select a topic. Students are encouraged to begin their paper while they are taking required courses. Early selection of a topic allows students to garner information in an orderly way that makes the writing easier and the experience more meaningful. Second, papers tend to be too long or too short. Papers must be between 20 and 30 pages long, somewhere between a class paper and a thesis. It is acceptable to take a class paper and expand it to the appropriate length. Third, papers must have ethical content. Environmental ethics concerns decisions on environmental problems that involve competing values. Therefore, papers are unacceptable unless they deal with an environmental problem from an ethical perspective. For a list of previous Undergraduate EECF paper titles, [click here](#).

After a student finishes his or her paper, the faculty member(s) review it and advise the student on revisions. Upon acceptance of the paper, a cover sheet is prepared (see the EECF office for this form) for the faculty member(s) to sign. The original paper is then approved by the Undergraduate Coordinator. Once the paper is approved, the student is responsible for writing an abstract (approximately 250 words) and submitting it to the EECF newsletter, EECFPerspectives, for publication.

Certification

After the program of study is completed, students and the Undergraduate Coordinator meet to determine that all the requirements for the Certificate have been completed. The Undergraduate Coordinator prepares the Certificate and notifies the Registrar of the University that the student has successfully completed the Certificate. The Certificate is signed by the Undergraduate Coordinator, the Chair of the EECF, the Provost of the University, and the President of the University. The Certificate is usually awarded at an EECF seminar.

For more information on the Undergraduate Environmental Ethics Certificate Program or to apply for admission to the program, contact:

Environmental Ethics Certificate Program
Founders Memorial House
325 S. Lumpkin St.
University of Georgia
Athens, GA 30602
Phone: (706) 542-0935
Fax: (706) 583-0051
eecp@uga.edu

Water Resources Undergraduate Certificate Program

Description of Program

The Water Resources Certificate Program prepares students for related careers in environmental science and management. Protecting the long-term ecologic health of our rivers and streams is an important national goal. Yet our society has ever-increasing demands for inexpensive supplies of high-quality water. The purpose of the program is to train students to manage our scarce water resources for the maximum benefit of the world's population, while at the same time preserving the ecologic integrity of our aquatic resources.

Certificate Requirements

The Water Resources Certificate Program provides a common curriculum to meet the educational needs of the next generation of environmental scientists and managers. Many of the courses provide hands-on experiences in an outdoor setting to learn about water resources.

The Certificate is awarded upon completion of at least one course from each of following categories:

- Water Resource Foundations
- Water Quality Foundations
- Hydrologic Processes
- Biological Interactions
- Water Resource Applications

These courses total between 14 to 18 credit hours. They are listed at <http://www.uga.edu/water/certificate.html>

Seminars

Attending six water resources seminar series is also required, seminars you may attend are listed at <http://www.uga.edu/water/seminars.html>

Admission Requirements

To be eligible for admission to the WRCP for an Undergraduate Certificate, a student must: (a) be an undergraduate student at the University of Georgia and (b) have completed at least two semesters or three quarters of full-time enrollment (must be a rising sophomore). The Undergraduate Certificate Program is an interdisciplinary program and is not associated with any particular College or School. This means that, providing the two criteria for admission are met, students from any college, school, or discipline are eligible for admission. There is a four-year time limit to obtain the certificate. Under certain circumstances, the time limit may be extended. Appeals may be made to the Undergraduate Coordinator.

Certification

After the program of study is completed, students and their major professor will meet to determine that all the requirements for the Certificate have been completed. The Major Professor emails Jenny Yearwood and Ms Yearwood prepares the Certificate and notifies the Registrar of the University that the student has successfully completed the Certificate. The Certificate is signed by the Major Professor, the Chair/Director of the WRCP, the Provost of the University, and the President of the University. The Certificate is usually awarded at an WRCP seminar.

For more information about the Water Resources Certificate Program, please contact these individuals within the departments:

Director: Dr. Todd Rasmussen - trasmuss@uga.edu

Deputy Director: Dr. Rhett Jackson - rjackson@smokey.forestry.uga.edu

Administrative Contact: Jenny Yearwood - yearwood@uga.edu or 706-542-0947

AWARDS & SCHOLARSHIPS

ROWE ENVIRONMENTAL HEALTH AWARD

The Rowe Environmental Health Award, in the amount of \$1000.00, is awarded to a graduating senior majoring in Environmental Health Science with a strong interest in public health. Selection criteria for this cash award is based on factors such as letters of recommendation, aspiration of the student, financial need and/or academic performance. The recipient will be selected by the Department's Scholarship Committee.

IRVING BELL SCHOLARSHIP, GEORGIA ENVIRONMENTAL HEALTH ASSOCIATION (GEHA)

The Irving Bell Scholarship, Georgia Environmental Health Association (GEHA), is in the amount of \$1800.00, all expenses paid to attend the GEHA Annual Educational Conference, 1 year paid membership to GEHA. It is awarded to a sophomore, junior, or senior majoring in Environmental Health Science with an interest in public health. The GEHA Scholarship Selection Committee will choose the awardee based on academic achievement, financial need, letters of recommendation, personal statement of the applicant, and the evaluation of the student's internship. A special application is required and is available in the EHS Departmental Office (206 EHS Building). Application deadline is March 1st annually.

JOHN J. SHEURING SCHOLARSHIP

The John J. Sheuring Scholarship, in the amount of up to \$1000.00, is awarded to a third-year student(s) in the Environmental Health Science major. Recipient(s) are selected by EHS faculty on the basis of academic excellence and participation in campus activities.

GEORGIA POWER COMPANY SCHOLARSHIP FOR INDIVIDUALS FROM UNDER-REPRESENTED POPULATIONS

Awarded to two students in the Environmental Health Science major per year (amount varies, up to \$3000). Recipients are selected on the basis of academic excellence and career interest in the Environmental Health Science field. Application Deadline: January 1 annually.

EHS OUTSTANDING SENIOR AWARD

The recipient of this award is chosen by the EHS faculty from the graduating senior class on the basis of scholarship, activities, and career goals in EHS. The amount awarded will vary.

CLUBS & HONOR SOCIETIES

The Environmental Health Science Club is the student chapter of the Georgia Environmental Health Association (GEHA). Membership in the EHS club automatically registers you for membership with GEHA. Meetings will take place the first Tuesday of every month at 5pm in room 101 of the EHS building (building number 1050). Pizza and drinks are always served. The benefits of the EHS club are numerous. By joining, you will be making new friends, creating contacts for yourself with environmental and public health professionals, getting information on internships and careers, learning about current events, and participating in community outreach. If you have any comments or concerns, please do not hesitate to email the 2008-09 club president Britt Cantrell at blcantrell@gmail.com or the club advisor, Dr. Zimeri, at zimeri@uga.edu.

Epsilon Nu Eta (ENH) is the Environmental Health Science Honor Society. The top juniors and seniors, as determined by academic performance, are selected for membership in ENH. Juniors are required to be in the top fourth of their class and have completed at least 15 hours of Environmental Health coursework with no grade below a B. Senior members are required to be in the top third of their class and have completed at least 21 hours of Environmental Health Science coursework with no grade below a B in each of those courses.

The **National Environmental Health Association (NEHA)** is a national professional society for environmental health practitioners, which was established in 1937. Currently the association has 5,000 members and offers a variety of programs that reflect the association's mission: "to advance the environmental health and protection professional for the purpose of providing a healthful environment for all." The association offers seven national credential programs (the Registered Environmental Health Specialist/Registered Sanitarian (REHS/RS), the Certified Environmental Health Technician (CEHT), the Registered Hazardous Substances Professional (RHSP), the Registered Hazardous Substances Specialist (RHSS), the Registered Environmental Technician (RET), the Certified Food Safety Professional (CFSP), the NEHA Radon Proficiency Program). NEHA sponsors an annual Educational Conference and Exhibition along with a number of technical workshops each year and publishes the peer-reviewed *Journal of Environmental Health*. Members can get involved in the society and the EHS field through working with NEHA committees on Air/Land, Chemical and Bioterrorism Preparedness, Drinking Water/Water Pollution, Emerging Pathogens/Vector Control/Zoonotic Diseases, Environmental Health Management, Environmental Health Research, Food Protection and Safety, General Environmental Health, Hazardous and Toxic Substances and On-site Wastewater Management. Member services include free subscriptions to the *Journal of Environmental Health*, access to an online career center (www.neha.org/CareerOp.html), discounts on printed material, meeting and workshop fees, a professional resume service and networking opportunities with NEHA professionals, among others. Full NEHA membership is open to all professionals employed in the environmental field. Student membership is open to all EHS students. Student dues are \$25/year. Visit www.neha.org for more information.

The **Georgia Environmental Health Association (GEHA)** is a regional affiliate of NEHA. Dues for student membership in GEHA are automatically included in the EHS Club dues. GEHA members receive the *Georgia Environmentalist* and discounted rates at the annual GEHA Educational Conference. GEHA also sponsors the Irving Bell Scholarship, a highly-competitive \$1500 award given annually to a senior EHS student. Additional information about GEHA can be accessed at www.geha-online.org/.

Minor – Environmental Health Science

- ▶ A minor must contain 15-18 semester hours of course work with at least 9 hours of upper division course work.
- ▶ Courses taken to satisfy Core Areas A through E may not be counted as course work in the minor.
- ▶ Courses taken in Core Area F may be counted as course work in the minor.

Required Courses: (9 hours - Minimum grade of C)

EHSC 3060 Intro to Environmental Health	3 hrs
EHSC 4490/6490 Environmental Toxicology	3 hrs
EPID 4070 Fundamentals of Epidemiology	3 hrs

Choose two to three courses from the following: (6-9 hours)

EHSC 3260 Shelter & Institutional Environments	2 hrs
EHSC 4080/6080 Environmental Air Quality	3 hrs
EHSC 4100/6100 (w/Lab) Industrial Hygiene	3 hrs
EHSC 4150/6150 Solid & Hazardous Waste Mgmt.	3 hrs
EHSC 4310/6310 (w/Lab) Environmental Microbiology (equivalent FDST or MIBO 4310/6310 w/ Lab)	3 hrs
EHSC 4610/6610 Water Pollution	3 hrs

Total Hours: 15 - 18

Career Opportunities in EHS

The B.S.E.H. prepares students for a variety of career options in the public and private sectors, including:

Environmental Health Specialist	Environmental Scientist
Industrial Hygiene Specialist	Hazardous Waste Manager
Public Health Specialist	Environmental Consultant
Toxicologist	Environmental Auditor
Occupational Health Specialist	Environmental Enforcement Officer
Environmental Protection Specialist	Health and Safety Officer
Research Technician	Environmental Education Specialist

Careers that may require additional training or certification include:

Environmental Risk Assessor	Ecological Risk Assessor
Bioremediation Specialist	Water/Wastewater Treatment Manager
Chemistry Teacher	Biology Teacher
Pharmaceutical, Chemical Sales	Environmental Equipment Sales

The basic science training for EHS majors will also satisfy entrance requirements for professional degree programs such as medicine (MD, OD), veterinary medicine (DVM), dentistry (DDS; DMD), optometry (DO) and pharmacy (PharmD).

JOB PLACEMENT SERVICES

Provided in the department:

No "official" placement services are available, but a job board is maintained outside the departmental office. Students also receive career guidance and employment leads from EHS faculty.

Career Consultant for the College of Public Health
 CHRISTIE SANDERS
 Career Center
 Clark Howell Hall
 clws@uga.edu
 (706) 542-3375

Featured Research

From the Laboratory of Luke Naeher

Measuring Ammonia and Particulate Concentrations from Commercial Broiler Houses



During the last two decades there has been an increase in concentrated animal feeding operations (CAFOs). These CAFOs are buildings or areas where food and water is provided to large numbers of animals. Animal waste is either left on the floor or washed into a drain where it is treated or pumped into a waste lagoon. Broiler houses leave the litter on the floor until the flock is finished. Swine, cattle and other operations sometimes have a drainage system to handle the waste.

Odors are an increasing concern for both farmers and their neighbors. As people from non-agricultural backgrounds move into and build homes in agricultural areas, concerns about odors invariably increase. Not only are some homeowners complaining of the odor but also claiming that emissions from agricultural facilities are causing deleterious health effects such as asthma and other respiratory problems. In addition, effects on the cardiovascular system and even change in mood have been claimed. Odors are extremely difficult to measure and quantify without bias, but two emission components that can be measured more accurately and may be indicators of air quality are ammonia and particulate matter.

The goal of this study is to test the concentrations of ammonia and particulates with an aerodynamic diameter of 2.5 micrometers ($PM_{2.5}$) up to 500 feet away from the tunnel ventilated chicken house in the summer. Tunnel ventilation is a system used in chicken houses in which all the fans are at one end of the house and air is pulled through cooling pads at the opposite end of the house. This creates a cool breeze that keeps the temperature comfortable for the chickens. It also exchanges the air containing ammonia, dust, $PM_{2.5}$, and other pollutants with fresh air from outside to maintain the air quality in the house.

The purpose of this study is to provide unbiased data on the concentrations of these two components of broiler house emissions and to study how they dissipate as they move away from the house. Considerable efforts have been made to quantify broiler house emissions rates, but very little research has been done on what happens to the air as it moves away from the source.

There will also be a seasonal comparison done in the fall or winter to see how ammonia and PM_{2.5} concentrations vary with changing seasons. While this research is still in progress, the results from the summer study should be available within the coming year and the seasonal comparison shortly after.

By Ben Hale

From the laboratory of Erin Lipp



Coral Disease Microbiology

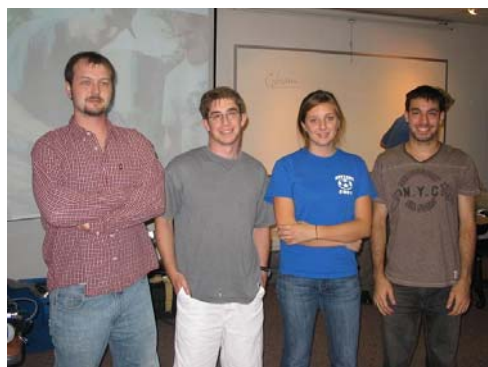
Coral reefs have been slowly degrading for several decades. There are many reasons for this decline, a few include: hurricanes, rising surface seawater temperatures, pollution, and sedimentation. Diseases can sometimes arise from these disturbances, and in many cases, cause mass mortality to the coral species' in which they affect. I am studying one of the many coral diseases, white pox, and more specifically, the bacterium which causes white pox, *Serratia marcescens*.

White pox exclusively affects the coral *Acropora palmata*, or more commonly, elkhorn coral. *A. palmata* was once the most dominant reef-building coral in the Caribbean. It is an environmentally sensitive species that requires clear, high saline, and moderate temperature water. It is the first coral species, along with *Acropora cervicornis*, to be listed as endangered under the Endangered Species Act. *Serratia marcescens* was first identified to be the causal agent of white pox in 2002 by Patterson et al. Little is known about this bacterium in marine environments, but we do know that it can be isolated from food, soil, water, plants, and sewage. It is also an important cause of many hospital related infections. While this pathogen is ubiquitous, its noted association with the human host prompts speculation that improperly treated sewage may be associated with white pox disease in corals. The purpose of my research is to study the characteristics of *S. marcescens* in different marine environments. I run experiments testing how long this bacterium persists in seawater and coral mucus. I manipulate these experiments by changing the temperature and salinity, and I also use mucus from several different coral species to test whether *S. marcescens* persists longer in one of them. The hypothesis is that this bacterium does in fact live longer in *A. palmata*, therefore causing disease. I also will look at the bacterial communities of each species, comparing them and testing whether or not some species harbor bacteria that actually inhibit *S. marcescens*.

In order to run these experiments, I have the job as a “mucus collector”. I sample in the Florida Keys, collecting mucus from the species of coral which I’m studying. I have worked in the Keys for several summers, studying different aspects of coral reef ecology. A few weeks ago, I joined several scientists on an annual NOAA coral disease cruise. We lived on a ship, the Nancy Foster, for 10 days, transiting from the Dry Tortugas to reefs off of Key Largo, sampling 50 stations on coral reefs. We used a radial belt transect method to collect quantitative observations on corals, diseases, and bleaching. While on this cruise, I was a coral counter, documenting all coral species in each transect. I also was able to collect mucus for my own research. This is done by using syringes to dislodge and collect the mucus. My research, along the research conducted on the Nancy Foster, is necessary to monitor coral health. It is important to understand not only the prevalence of coral diseases, but also the ecology of these diseases and the pathogens that cause them.

By Erin Looney

SESD Visits Solid and Hazardous Waste Management Class



The Science and Ecosystem Support Division of the Environmental Protection Agency (SESD) visited EHSC4150/6150 to present several case studies as well as hazardous protective gear to students. Mike Neill and Marty Allen from the criminal investigations unit in Athens spoke about civil and criminal investigations from around the Southeastern Atlantic area. Investigations included illegal dumpsites, permit violations, and buried hazardous wastes. After the case studies, Mr. Martin and Mr. Allen (shown below, second from right) assisted students Jeff Dennis, Alex Corey, Heidi Raben, and George Issa (pictured left) dress out in level C and level B hazard suits. Jeff and George (below left) were suited up in level C suits which included boot covers, latex gloves and cartridge respirators. Heidi and Alex (below right) donned level B suits that had supplied oxygen and silver shield gloves.



New Faculty



Dr. Travis Glenn: Associate Professor Dr. Glenn will join us on December 1, 2007. He comes to us from the Savannah River Ecology Laboratory (SREL) where he was an Associate Research Scientist. He is a genotoxicologist who develops and uses DNA techniques and technologies to address problems in public and environmental health, including research investigating antibiotic resistance, toxicity of nanoparticles and heavy metals, genetic damage in organisms exposed to radiation (Chernobyl), development of novel environmental biomonitoring species. He is also involved in genomics research and often uses non-traditional model organisms – alligators, medaka and *Peromyscus* species. Dr. Glenn has published more than 65 peer-reviewed manuscripts and his research has been funded by a variety of sources, including NSF, NIH, EPA, NOAA and DOE. He brings a robust research program and will add to the technical and instructional expertise in genotoxicology and genomics in Environmental Health Science and the College of Public Health