#### OPENING DOORS TO ENVIRONMENTAL CAREERS FLORIDA A&M UNIVERSITY

## **ABOUT SOE**

The School of the Environment (SOE) offers several innovative and exciting programs at Florida A&M University. The school is a multidisciplinary unit that offers a wide range of services to students, governmental agencies, private sector companies, communities and other organizations.

Our value for diversity is reflected in the faculty, students and staff that comprise the SOE. Consistent with the mission of FAMU, the SOE has a commitment to the training of African Americans and others underrepresented in the sciences, and is the largest producer of Black doctorates in the environmental sciences. We are sensitive to and keenly aware however, that having individuals of all racial and ethnic groups provides for an enriched and valuable experience for all.

The School's mission is to provide instruction, conduct research, engage in professional and community service on the local, national, and international levels, and facilitate technology transfer which will result in protection of the environment and the development of remedies for existing environmental problems; the education of communities on environmental science and policy issues; and the scientific and intellectual preparation of students who are uniquely prepared to address present and future interdisciplinary environmental science and policy issues.

### FACULTY

Victor M. Ibeanusi, Ph.D., Dean, School of the Environment Bioremediation; Water Quality; Industrial Ecology

Ashvini Chauhan, Ph.D. , Associate Professor Environmental Biotechnology; Molecular Microbial Technology

**Charles Jagoe, Ph.D.,** Distinguished Scientist Aquatic and Coastal Ecology: Ecotoxicology

**Elijah Johnson Ph.D.,** Associate Professor Theoretical and Computational Chemistry

Frederick Essien, Ph.D., Associate Professor Atmospheric Pollution; Environmental Radioactivity

Henry Williams, Ph.D., Professor Microbial Ecology; Microbial Predation; Bacterial Predators

Marcia Allen Owens, J.D., Ph.D., Associate Professor Environmental Policy & Law; Environmental Literacy

Michael Abazinge, Ph.D., Professor Environmental Physiology; Bioconversion of Agricultural Waste

Michael Martínez-Colón, Ph.D., Assistant Professor Coastal Ecology, Environmental Micropaleontology

Richard Gragg, Ph.D., Associate Professor Environmental Toxicology; Policy and Risk Management

## STAFF

Benjamin Mwashote, Ph.D., Laboratory Core Manager Diane Hall, Coordinator, Academic Programs Eda Garcia, Budget Coordinator Hazel Taylor, Research Programs/Services Coordinator







## FACILITIES

You will experience state of the art research facilities housed in approximately 6,000 square feet of space in the Humphries Science Reasearch Center. Insruments available to both faculty and students in this facility include ICP/OES, GC/MS, HPLC, AA, and high resolution gamma-ray spectroscopy with fiber optic access to the internet. In addition the School houses a GIS computer laboratory with high performance computers and high speed internet access. Laboratory equipment is continuously upgraded and replaced to maintain our cutting-edge status.

## FINANCIAL SUPPORT

The school offers eligible Students support through scholarships and work-study assistantships. Students also have the opportunities for internships in industry, state, and federal laboratories.





FOR MORE INFORMATION CONTACT US: 1515 S Martin Luther King Jr. Blvd Tallahassee, Florida 32307 • famu.edu/soe Tel: (850) 599-3550 • Fax: (850) 599-8183

## SCHOOL OF THE ENVIR



## ENVIRONMENTAL SCIENCE Ph.D. DEGREE

The Ph. D. degree program in the School of the Environment will prepare scientists to confront environmental issues which can be resolved only through innovative basic and applied research. The degree requirements are intended to ensure that all Ph. D. candidates develop independent and originality of thought and that students acquire in-depth knowledge in a specialized area of study and a broad knowledge base in environmental science in general. Completion of 80 semester hours of graduate level course work and research is required. The four basic components: (A) core courses (19 hours), to provide a fundamental understanding of environmental process, issues and policies; (B) concentration courses (12 hours), to provide necessary courses for specialization or later advanced studies, (C) dissertation (24) hours, and (D) a minimum of 25 hours of supporting courses.



## DOCTOR OF PHILOSOPHY IN ENVIRONMENTAL SCIENCE

#### **CORE COURSES**

EVR	5260	Sources & Contr. of Enviro. Pollution
EVS	6885	Enviro. Research Design & Analysis
CHS	5610	Environmental Chemistry w/lab
EVR	6064	Principles of Ecology
EVR	5862	Enviro. Policy & Risk Management
EVS	5905	Env. Colloquium/Seminar *
Total		

#### **GENERAL COURSES**

EVS	6980	Dissertation
EVS	6906	Directed Independent Study
EVS	6932	Special Topic
EVS	6913	Supervised Research

### **CONCENTRATION AREAS**

#### **ENVIRONMENTAL CHEMISTRY**

CHS	5610C	Environmental Chemistry
CHS	5105	Radiochemistry I
CHS	5106	Radiochemistry II
GLY	5828	Subsurface Fate & Transport
EVS	5693	Radiation Instruments & Measurement
EVR	5260	Sources & Contl. of Enviro. Pollution
RHT	5130	Sources & Contl. of Radioact. Waste
RHT	5415	Radiological & Health Physics
EVS	5655	Waste Treatment and Disposal
EVS	5607	Environmental Radioactivity
EVS	5603	Site Characterization & Soil Survey
EVS	5027	Environmental Microbiology
RHT	5948	Special Topics in Radiation Protection
RHT	5210	Principles of Radiological Health
EVS	5673	Bioremediation Application & Tech
RHT	5326	Internal Radiation Dosimetry
EVS	6706	Fate & Transport of Enviro. Contam.
EVS	6705	Atmospheric Contam. Transport
EVS	6029	Comp. Methods in Enviro. Science
EVS	6815C	Chemical Separation Tech. w/lab

#### ENVIRONMENTAL POLICY AND RISK MANAGEMENT

3

Δ

4

3

3

2

19

var var

var

var

3

3

3

3

3

3

3

3

3 3

3

3 3 3

3

3 3

3

4

F

EVS	5862	ENVIRO. REGULATIONS & REGULATORY
EVR	5863	ENVIRO. RESOURCE, ECONOMICS & POLICY
EVR	5864	ENVIRO. POLICY & RISK MANAGEMENT
EVR	5865	ENVIRO. RISK ANALYSIS
EVR	5866	PRINCIPLES ENVIRO. LAW PRACTICE
EVS	6887	MOLECULAR EPIDEMIOLOGY
EVS	6818	ECOLOGICAL RISK ASSESSMENT
EVS	6883	ENVIRONMENTAL DECISION MAKING
EVR	6265	REMOTE SENSING OF ENVIRONMENTS

#### **AQUATIC AND TERRESTRIAL ECOLOGY**

VR	6064	Principles of Ecology	
VS	6818	Ecological Risk Assessment	
VS	6933	Adv. Topics in Aquatic & Terres. Ecol.	

#### **BIMOLECULAR SCIENCES**

VS	5028	Molecular Biology Techniques	
VS	5896	Environmental Biotechnologies	
VS	5027	Environmental Microbiology	
VS	5673	Bioremediation Appl. & Techniques	
VS	6798	Environmental Biosensors	
VS	6887	Molecular Epidemiology	



\* One hour course offered in the fall and spring semesters. All doctoral students, including those who have satisfied the minimum seminar requirements are expected to participate in the Research Seminar every semester except the semester in which they defend their dissertation.

#### **RESEARCH INTEREST**

2

3

3

3

3

3 3

3

3

3

3

3

2

Our distinguished faculty members along with students and faculty from other institutes of higher education conduct research in the following areas:

- Aquatic Microbial Ecology Processes
- Environmental Microbiology of Water
- Distribution Systems
- Environmental Physiology
- Bioconversion of Agricultural Waste
- Wetland and Coastal Ecology
- Biogeochemistry
- Microbial Ecology
- Bioremediation
- Atmospheric Chemistry and Physics
- Contaminant Transport Modeling
- Environmental Restoration
- Environmental Toxicology
- Environmental Policy and Risk Management
- Biochemistry
- Ecological Risk Assessment
- Theoretical and Computational Chemistry
- Radiation Protection
- Environmental Radiochemistry

# SCHOOL OF THE ENVIRONMENTAL SCIENCE PH.D. DEGREE