Environmental Science

Table of Contents

Environmental Science

Alabama A&M University

Bachelor Of Science In Environmental Science

AAMU Environmental Science program combines theoretical study and practical training to prepare students to address significant issues related to air, soil, and water quality. Through knowledge application and research experiences, students are fully equipped to enter positions requiring strong interdisciplinary skills and knowledge, including biology, chemistry, physics, and soil science.

- Diverse Issues in Higher Education's Top 100 Degree Producers, AAMU was ranked in the nation's top 10 producers of African American graduates in Biological Sciences.
- AAMU is designated as a **Center of Excellence for Watershed Management** by the EPA.
- More than 90% of students majoring in Environmental Sciences receive summer and cooperative placements with governmental agencies, universities, forestry, biotech, and other agribusiness industries.
- AAMU has an extensive Environmental Sciences research program that provides unique opportunities for undergraduate students to gain valuable practical experience in their chosen field of study.

CONCENTRATIONS

- Agricultural Science
- Environmental Health Science
- Plant Science
- Soil Science
- Public & Environmental Health

Key Contact

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Environmental Science

Benedict College

Benedict College Biology, Chemistry, and Environmental Health Sciences Department is committed to producing leaders in the STEM fields. Recognizing the crucial role in science, the Biology, Chemistry and Environmental Health Sciences Department provides research opportunities to all interested and qualified students as part of their undergraduate education.

Benedict College was awarded full reaccreditation for its Environmental Health Science (EHS) Program by the National Environmental Health, Science and Protection Accreditation Council (EHAC) for a term of six years.

The Council found the Benedict College EHS program to be a solid undergraduate environmental health academic program that graduates alumni well-prepared in the principles and practices of environmental health. EHAC will conduct its next evaluation of the program in 2029.

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Environmental Science

Bethune-Cookman University

The Department of Integrated Environmental Science takes a holistic approach, combining scientific and social methods to address local and global environmental issues--developing those leaders, with a particular focus on members of underrepresented populations**.**

Bachelor of Science in Integrated Environmental Science (IES)
Designed for students who are interested in careers that focus on environmental issues, particularly large-scale issues for which study and solutions require an interdisciplinary approach. The program provides the core scientific knowledge that will enable students to understand environmental systems.

IES is a restricted major, a student must maintain a minimum 2.0 grade point average to remain a major. For course credit toward graduation, IES majors and minors must earn a grade of "C" or better in all required courses. An IES student who earns less than a "C" in a listed course and/or receives a GPA below 2.0 will be given a grace period of one retake or one semester to correct the deficiency or be withdrawn from the degree program.

Master of Science in Integrated Environmental Science
Integrated Environmental Science is a subdiscipline of the larger field of Sustainable Human and Environmental Systems, which combines scientific and social content. Equip students to make informed decisions regarding complex, relatively large-scale environmental issues. Courses are designed to meet the needs of students working toward graduate study in environmental science and/or as environmental practitioners in fields including, resource management, field science and environmental policy.

Admission requires a bachelor's degree in some aspect of natural or applied science or environmental policy, such as some form of biology, chemistry, natural resources (policy, management, or field oriented), wildlife management, fisheries, or similar.

Integrated Environmental Science, Combined B.S/M.S
IES offers a 3+2 program, leading to both a B.S. and M.S. By using course overlaps and summer sessions, the 3+2 program accelerates the time span for coursework toward earning both a bachelors and master's degree from the typical four years plus two (or more) to as little as five calendar years (depending upon the time needed to complete a thesis). A 3+2 program is a popular way to reduce the time and cost of obtaining an advanced degree. Students enrolled in the 3+2 program are considered graduate students from their fourth year of study, which subjects students to graduate school regulations concerning enrollment, GPA, etc.

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Environmental Science

Delaware State University

Delaware State boasts a superior Bachelor of Environmental Science degree program. As a land-grant institution, DSU has a 100-plus-year history of leadership in environmental science education. DSU environmental science program builds on that tradition, preparing students for careers that address issues such as global climate change, biofuels and renewable energy, sustainable agriculture, water and soil conservation, environmental policy and habitat and species protection. About 15% of DSU Environmental Science students continue to graduate school.

Faculty members in the College of Agriculture and Related Sciences combine a strong academic background with extensive industry ties and professional experience. As a result, they can offer career guidance and mentorship as well as classroom instruction. Many of our instructors are very active researchers, and they regularly provide undergraduates with opportunities to get involved in scientific investigations and research projects. DSU small class sizes guarantee a high degree of direct faculty-student interaction.

Delaware State University also offers a Master of Science in Natural Resources and Integrative Agricultural, Food and Environmental Sciences, PhD.

Undergraduates at Delaware State frequently participate in faculty-sponsored research programs—ongoing research in wetlands habitat protection, fisheries management, water conservation, and habitat evaluation.

Delaware State University's Environmental Science program builds on that tradition, preparing students for careers addressing global climate change, biofuels and renewable energy, sustainable agriculture, water and soil conservation, environmental policy, and habitat and species protection.

RESEARCH AND EXPERIENCE

Undergraduates at Delaware State frequently participate in faculty-sponsored research programs. At present, there is ongoing research in such niches as wetlands habitat protection, fisheries management, water conservation, and habitat evaluation.

All students in the Environmental Sciences program perform a senior capstone project. In this project, students perform a real-world analysis of an agriculture- or natural resource-based ecosystem. The analysis accounts for factors such as environmental impacts, technological inputs, habitat evaluation and sustainability

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Environmental Science

Florida Agricultural and Mechanical University

The Bachelor of Science (B.S.) in Environmental Science emphasizes rigorous academic course work, student involvement in faculty research, and collaborative efforts with other universities, community/junior colleges, national laboratories, regulatory agencies, corporate environmental contractors, utilities, and municipalities.

Bachelor of Science (B.S.) in Environmental Science

FAMU requires 120 semester hours to complete. This program offers students the opportunity for a general degree in environmental sciences with options for a specialized concentration in the following: Environmental Restoration & Waste Management, Environmental Monitoring & Instrumentation, Environmental Toxicology/Risk Assessment, Sustainability Science, and Environmental Policy.

Master of Science (M.S.) degree in Environmental Sciences

The Master of Science (M.S.) degree is awarded to candidates who display an in-depth understanding of the subject matter by successfully completing the program of study and demonstrating the ability to make significant contributions to their field of study. This program requires the completion of a minimum of 36 credit hours as follows: 19 hours of core courses, 12 hours of concentration courses, and 6 hours for a thesis.

Concentration offerings include: Environmental Biotechnology, Environmental Restoration & Waste Management, Marine & Estuarine Environments, Environmental Policy & Management, Radiation Protection

Facilities:

Students will experience state-of-the-art research facilities housed in approximately 6,000 square feet of space in the **Humphries Science Research Center**. Instruments 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

Bachelor of Science (B.S.) in Environmental Science Curriculum offers concentration in:

- Toxicology/Risk Assessment
- Environmental Monitoring and Instrumentation
- Environmental Restoration/Waste Management
- Sustainability Science

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Fort Valley State University

Summary of Agricultural Programs at Fort Valley State University (FVSU)

Fort Valley State University (FVSU) offers comprehensive programs in agricultural studies, preparing students for diverse careers in agriculture-related fields. Each program provides specialized knowledge and practical experience to equip graduates for the workforce or further education.

Agricultural Economics

- Degree Offered: Bachelor of Science in Agriculture with a major in agricultural economics
- Focus: Examines why crops are grown and animals are raised, how they are produced and sold, and how people obtain and consume these products. The program emphasizes understanding the economic motivations and impacts on agriculture.
- Career Opportunities: Economist, Financial Analyst, Financial Services Sales Agent, Public Interest Advocate, Commodity Broker
- Contact: Mohammed Ibrahim, Ph.D. (478-825-6815, ibrahimm@fvsu.edu)

Agricultural Education

- Degree Offered: Bachelor of Science in Agriculture with a major in agricultural teacher education
- Focus: Prepares students to teach others about agriculture, including plant and animal sciences, food production, and curriculum design. The program is CAEP accredited and PSC approved.
- Career Opportunities: Agricultural Chemical Sales, Extension Agent, Farm Manager, Farmer, Government Agency Positions, Processing Plant Manager, Rancher, Teacher
- Admission Requirements: Minimum GPA of 2.25, SAT scores of 430 (Critical Thinking/Verbal) and 400 (Math) or ACT scores of 17 (English and Math); official admission to teacher education requires a GPA of 2.70 on 50 hours of coursework and passing the GACE Basic Skills Assessment.

Agriculture Engineering Technology

- Degree Offered: Bachelor of Science with a major in agriculture engineering technology
- Focus: Applies science and engineering to build structures, machines, and programs to enhance plant and animal life. Emphasizes scientific, engineering, and management knowledge alongside strong communication skills.
- Career Opportunities: Agricultural Equipment Specialist, Agricultural Imports Inspector, Biological Systems Engineer, Biomedical Engineer, CAD Programmer, Design Technician, Energy Advisor, Engineering Technician, Environmental Consultant, Experimental Mechanic, Farm Manager/Operator, Plant Operations Manager, Precision Agricultural Specialist, Quality Control Manager, Research Technician, Safety Specialist, Systems Designer, Water Management/Quality Specialist

Fisheries Biology and Wildlife Conservation

- Degree Offered: Bachelor of Science with a focus on fisheries biology and wildlife conservation

Environmental Science

- Focus: Provides a background in ecological and organismal biology with an emphasis on fish and wildlife conservation. Includes field trips and internships for hands-on experience.
- Career Opportunities: Prepares students for graduate school or employment with federal, state, and private agencies involved in fish and wildlife conservation.
- Contact: George Mbata, Ph.D. (478-825-6550, mbatag@fvsu.edu)

These programs at FVSU are designed to provide students with the skills and knowledge needed for successful careers in agriculture, education, engineering, and conservation, emphasizing both theoretical and practical learning experiences.

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Environmental Science

Howard University

B.S. Interdisciplinary Studies Major in Environmental Science

Howard University was one of the first HBCUs with an environmental studies program and faculty have engaged in environmental research across many disciplines, including the arts, social sciences, humanities, natural sciences, engineering, law, and medicine. This program responds to the growing demand among students for environmental training, provides increased research opportunities, and allows the university to respond to its historic mission to develop students who can represent and protect under-served communities worldwide.

This Major Concentration consists of four components, including foundation courses in environmental sciences, scientific research methods course(s) to provide a strong training in empirical research and statistical and data analysis, advanced courses exposing students to the breadth of the field while allowing focus within the major, and a Capstone Experience in the form of an internship or research experience

- **B.S in ES -Requirements**
- **Minor in ES -Requirements**

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Environmental Science

Jackson State University

In JSU Environmental Science program, students develop a broad understanding of the natural world and interactions between humans and the environment. Graduates of the program are prepared for dynamic careers in government or private sectors focused on tackling challenges in fields like conservation, ecology, climate change, and environmental justice.

BACHELOR OF SCIENCE BIOLOGY, Environmental Science Concentration

In the Environmental Science program at Jackson State University, students gain a comprehensive understanding of the natural world and the interactions between humans and the environment. Graduates are equipped for dynamic careers in both the government and private sectors, addressing challenges in areas such as conservation, ecology, climate change, and environmental justice.

Environmental Science Ph.D. Program

The Environmental Science Ph.D. program at Jackson State University is a research-intensive degree, requiring extensive time spent on laboratory and field-based experiments. Over the years, numerous research centers have been established within the JSU College of Science, Engineering & Technology, offering graduate students and faculty valuable opportunities to develop and conduct significant environmental science research projects.

Jackson State University is currently the sole institution in the State of Mississippi that offers a doctoral program in Environmental Science.

This unique academic program is interdisciplinary and involves faculty from all the College of Science, Engineering & Technology departments.

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Environmental Science

Johnson C. Smith University

Analysis of the Center for Renewable Energy and Sustainability (CRES) Initiatives at Johnson C. Smith University (JCSU)

Mission and Vision

The Center for Renewable Energy and Sustainability (CRES) at Johnson C. Smith University (JCSU) demonstrates a robust commitment to sustainable development. This commitment aligns with global sustainability goals and is reflected in local initiatives, particularly those aimed at establishing a sustainable local food system within the Beatties Ford Road Corridor.

Renewable Energy Projects

JCSU has implemented several renewable energy projects that highlight its dedication to reducing carbon emissions and promoting clean energy:

- **Solar Panel Arrays:**
  - The university boasts a 3.5 kWdc solar panel array on the New Science Center, installed in 2015.
  - In 2021, a significant addition was the installation of a 17.9 kWdc solar array to power the Sustainability Village greenhouse, offsetting 18.5 tons of CO2 annually.
  - Recently, a 23,750 kWh solar array was added at the Sustainability Village urban farm to support the new 8,600 sq. ft. greenhouse.

- **Wind Turbine System:**
  - A 2.4 kWdc wind turbine is connected to the educational-scale aquaponic greenhouse, contributing to the campus's renewable energy mix.

Educational and Community Impact

- Sustainability Minor:
  - The Sustainability minor at JCSU offers a flexible program open to all majors, exposing students to key sustainability concepts and practices. This interdisciplinary approach equips students with the knowledge to address environmental issues, making them valuable assets in various sectors.

- Farm-to-Fork Program:
  - The Sustainability Village supports a farm-to-fork initiative, providing access to nutrient-dense, pesticide-free produce. This program aims to enhance student and staff well-being and supports campus retention and recruitment efforts. Plans for an on-campus market further integrate sustainability into the campus culture.

- Water Quality Research:
  - CRES conducts research on water quality, involving students in practical data collection and analysis. Findings indicate that areas with poor riparian buffers and high ecological disturbances suffer from degraded water quality. This ongoing project offers students valuable research experience.

Environmental Science

Future Plans

- **Electric Vehicle (EV) Charging Stations:**
  - JCSU plans to install two Level II EV charging stations, capable of charging four electric vehicles, further promoting the adoption of clean energy transportation options on campus.

Conclusion

JCSU's Center for Renewable Energy and Sustainability (CRES) showcases a comprehensive approach to sustainability through education, renewable energy projects, and community initiatives. These efforts not only contribute to environmental preservation but also enhance the university's academic offerings and community engagement. The ongoing and planned projects underscore JCSU's proactive stance in promoting a sustainable future.

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Environmental Science

Lincoln University - Missouri

Lincoln University of Missouri, a land-grant university since 1890, offers comprehensive education in agriculture and environmental sciences through its Department of Agriculture and Environmental Sciences. The department provides Bachelor of Science (BS) and Master of Science (MS) degrees with various concentrations, preparing students for careers in agribusiness, animal science, natural resources management, and more.

Degree Programs and Concentrations

- Undergraduate
  - Bachelor of Science in Agriculture (BSA)
    - Agribusiness
    - Animal Science
    - Natural Resources Management
    - Plant and Soil Science
    - Pre-Professional: Veterinary
  - Bachelor of Science in Agriculture Education (BSEd)
    - Agriculture Education
  - Minors
    - Agriculture
    - Agribusiness
    - Geospatial Information Sciences
    - Wildlife Management
  - Graduate
    - Master of Science in Sustainable Agriculture

Key Features and Opportunities

- Small Class Sizes: Direct interaction with expert faculty.
- Practical Experience: Hands-on learning at University Farms, Facilities, and GIS Lab.
- Student Organizations and Activities: Opportunities to build connections through the Agriculture Club and MANRRS (Minorities in Agriculture, Natural Resources, and Related Sciences).
- Scholarships: Available for eligible students.

Student Organizations

- **Agriculture Club (Aggie Impact)**
  - Promotes production agriculture and encourages student involvement.
  - Activities: Livestock shows, FFA Day, Field Day, Christmas Parade, Pitch Tournament, Easter Egg Hunt.
  - Monthly meetings with $5 membership dues per semester.

- **MANRRS**
  - A national society supporting minorities in agriculture-related fields.
  - Offers role models, networking, leadership, and public speaking skill development.
  - Participates in the prestigious AgDiscovery program.

Center of Excellence GIS Lab

- Educational Focus: Digital Cartography, GIS, GPS, and Remote Sensing.

Environmental Science

- Resources: State-of-the-art hardware, mapping-grade GPS receivers, drones, and relevant software.
- Support: Funded by USDA-NRCS, providing academic programs and research opportunities.

Future Farmers of America (FFA)

- Mission: Encourage local and urban students to pursue agriculture degrees.
- Activities: Monthly meetings, industry tours, outreach events, career skill development.
- Annual Events: FFA Day, campus clean-ups, petting zoos, agriculture literacy events.

Summary

Lincoln University's Department of Agriculture and Environmental Sciences equips students with scientific, technical, and practical skills needed for modern agriculture and environmental sciences careers. Through diverse degree programs, hands-on experiences, and active student organizations, the department fosters academic and professional growth, preparing students to contribute significantly to the agriculture industry and environmental stewardship.

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Environmental Science

Lincoln University - Pennsylvania

Environmental science focuses on the study of ecosystems. As part of the study of biology, environmental science delves into how ecosystems are structured and how they support the life of organisms, including plants and animals, that live in them. It's a rich and rewarding area of study for anyone interested in building an understanding of how life exists and thrives, and can lead to a range of careers focused on the study and preservation of natural environments.

Lincoln University offers Bachelor of Science (BS) and Bachelor of Arts (BA) degrees in Environmental Science, along with a minor in Environmental Issues. The program, part of the Biology Department, provides a comprehensive curriculum covering biology, chemistry, and mathematics, including courses in ecology, zoology, calculus, and statistics. It emphasizes understanding ecosystem structure and function and the life it supports.

Key Learning Outcomes

When students major in environmental science at Lincoln, they will develop the following skills and practices:

- Apply the scientific method and complete an independent research project.
- Learn to effectively communicate scientific concepts through written, spoken, and visual means.
- Synthesize information and apply knowledge to develop solutions for environmental issues.
- Make connections between organism needs and environmental resources.
- Be able to explain global physical processes and how these processes lead to changes that cause evolutionary adaptation in populations.
- Connect nutrient cycling and energy flow from the individual organism level to the ecosystem level.
- Describe ecosystem structure and correlate structure with function for all levels of the ecosystem.

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Environmental Science

Morehouse School of Medicine

The Frontiers in Environmental Science and Health (FrESH) program is an advanced training initiative aimed at mentoring graduates, medical students, postdoctoral fellows, and junior faculty from predominantly underrepresented communities in Environmental Health Science Research. The program features dynamic, week-long summer courses combining daily lectures by leading experts, active learning sessions, and hands-on laboratory experiences.

Key Features

- Focus on Underrepresented Minorities: FrESH targets environmental health science (EHS) issues impacting underrepresented minorities.
- Comprehensive Education: The program covers ethical, legal, and societal impacts of EHS research, emphasizing disparities and inequities affecting minority communities.
- Research Themes: Key areas of research include obesity and health disparities, pollution impacts on health, maternal/fetal health, and innovative models for assessing environmental impacts.
- Topics Covered: Subjects range from health disparities and environmental justice to urban air pollution, metabolomics, water quality, and the effects of THC on health.

Takeaways

FrESH aims to equip participants with the necessary research skills and ethical grounding to begin their careers in environmental health science responsibly and effectively.

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Morgan State University

Climate Science Division Graduate Programs: Bioenvironmental Sciences

Climate Science Division awards PhD degrees in Bioenvironmental Sciences under the School of Computer, Mathematics & Natural Sciences. Students work on real-world climate challenges funded by federal agencies. All admitted PhD students in the Climate Science Division will have full-time tuition support and competitive 12-month stipend. Please contact Dr. Li or Dr. Damoah on current research topics and offers. Please refer to Bioenvironmental Sciences for application requirements and deadlines.

PhD in Bioenvironmental Sciences

Program Specializations: Biotechnology, Chemistry, Health Sciences, Toxicology, and Science.
Learning Approach: Interdisciplinary learning, hands-on experiences, and a supportive community.

- Core Courses:
  - Standard Track: Five core courses.
  - Advanced Track: Three core courses.
- Program Tracks:
  - Advanced Track: 36 credit hours.
  - Standard Track: 60 credit hours with a dissertation.
- Campus Requirement: Study on campus.
- Program Duration:
  - Complete in as little as three years.
  - Up to five years for the Standard Track.

Advance in Your Professional Career
Bioenvironmental sciences is a crucial field for our time since it focuses on improving environmental sustainability. Whether you are aiming to enter academia, private industry, or a governmental agency, the PhD in Bioenvironmental Sciences will bring you closer to your future endeavors. We will provide you with the essential academic knowledge, research, and practical skills needed to solve important problems facing our world today.

Learn In-Demand Skills
Enhance your understanding of environmental issues and their effects on all biological systems. Prepare to acquire highly sought-after skills through an interdisciplinary framework, offering specialized learning in key areas.

- Organic and environmental chemistry
- Bioecology and ecosystem analysis
- Microbiology and immunobiology
- Environmental toxicology and carcinogenesis
- Biophysics
- Nuclear physics
- Computational physics
- Bioinformatics
- Bioprogramming

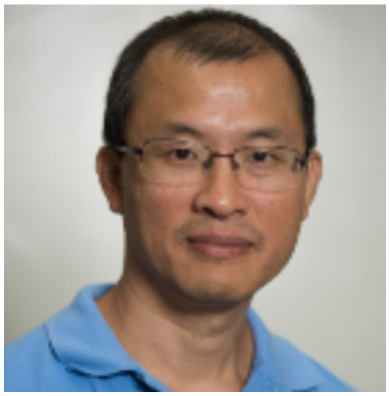
Environmental Science

Secure Your Ideal Career

Upon graduation, you'll be equipped to advance in the field of bioenvironmental sciences. Whether you aim to work in government, agencies, or industry, your multidisciplinary training will propel you forward. Consider exploring the various job titles and career opportunities that align with this field.

- Atmospheric Scientist
- Bioenvironmental Engineer
- Environmental Scientist
- Hydrologist
- Professor
- Zoologist or Wildlife Biologist

Key Contact:



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Environmental Science

North Carolina A&T State University

College Of Agriculture And Environmental Sciences

Feeding the planet and protecting the environment are increasingly urgent challenges. At North Carolina A&T's College of Agriculture and Environmental Sciences (CAES), you can help address them. CAES offers pioneering programs in Laboratory Animal Science, Landscape Architecture, Cooperative Extension, Agricultural Research, and Post-Harvest Technologies. With a legacy of innovation, CAES prepares students for diverse careers in agriculture and environmental sciences worldwide. Join us to make a meaningful impact in these crucial fields.

Academic Departments
The College of Agriculture and Environmental Sciences offers undergraduate and graduate degrees in four departments:

- DEPARTMENT OF AGRIBUSINESS, APPLIED ECONOMICS AND AGRISCIENCE EDUCATION
  - Bachelor of Science (B.S.) - Agricultural and Environmental Systems (Agribusiness and Food Industry Management)
  - Bachelor of Science (B.S.) - Agricultural Education (Ag Professional Service) (Secondary Education)
  - Master of Science (M.S.) - Agricultural Education (Professional Licensure)
  - Master of Science (M.S.) - Agricultural Education (Professional Service)
  - Master of Science (M.S.) - Agricultural and Environmental Systems (Agribusiness and Food Industry Management)

- DEPARTMENT OF ANIMAL SCIENCES
  - Bachelor of Science (B.S.) - Animal Science
  - Bachelor of Science (B.S.) - Animal Science (Animal Industry)
  - Master of Science (M.S.) - Laboratory Animal Science
  - Master of Science (M.S.) - Agricultural and Environmental Systems (Integrated Animal Health Systems)

- DEPARTMENT OF FAMILY AND CONSUMER SCIENCES
  - Bachelor of Science (B.S.) - Child Development and Family Studies (Child Development and Family Relations)
  - Bachelor of Science (B.S.) - Family And Consumer Sciences (Fashion Merch & Design)
  - Bachelor of Science (B.S.) - Family and Consumer Sciences (Consumer Science)
  - Bachelor of Science (B.S.) - Food And Nutritional Sciences (Human Nutrition)
  - Bachelor of Science (B.S.) - Food And Nutritional Sciences (Food Science)
  - Master of Science (M.S.) - Food And Nutritional Sciences
  - Masters of Arts in Teaching (M.A.T.) - Teaching (Family And Consumer Sciences Education)
  - Masters of Arts in Teaching (M.A.T.) - Child Development Early Education And Family Studies (Birth -Kindergarten)
  - FCS-CERT-O Family Financial Planning
  - Human Lactation Pathway 2 Certification
  -

Environmental Science

- DEPARTMENT OF NATURAL RESOURCES AND EVIRONMENTAL DESIGN
  - Bachelor of Science (B.S.) - Biological Engineering
  - Bachelor of Science (B.S.) - Agricultural and Environmental Systems (Environmental Studies)
  - Bachelor of Science (B.S.) - Agricultural and Environmental Systems (Sustainable Land and Food Systems)
  - Bachelor of Science (B.S.) - Landscape Architecture
  - Master of Science (M.S.) - Agricultural and Environmental Systems (Natural Resources and Environmental Systems)

Ph.D. in Agricultural and Environmental Sciences at N.C. A&T

Program Overview:

- Focus: Global food system complexities, food, energy, and water challenges.
- Career Paths: Researchers, faculty, entrepreneurs, leaders in academia, agriculture industry (public and private sectors).
- Goal: Address global challenges of providing and sustaining safe, healthy food and fiber supplies.

Admission Requirements:

- Master's degree in food, agricultural, biological, or environmental sciences, or a related field.
- Minimum GPA: 3.3.
- Credit Hours: 65 post-baccalaureate (15 core, 15 electives, 18 concentration, dissertation).

Program Highlights:

- Dynamic, nationally/internationally recognized faculty.
- Small class sizes for personalized interaction.
- Land-grant, high-research institution.
- Largest historically Black university in the U.S.
- Strong professional and personal networks.

Graduate Outcomes:

- Equipped to handle changes in health, nutrition, consumer preferences, national security, and climate issues.
- Prepared for lifelong impact in agriculture and environmental fields.

Concentration:

- Food science, Human Nutrition and Health
- Sustainable agriculture and environmental sciences
- Agribusiness and applied economics
- Sustainable animal production and health
- Agricultural and extension education

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Environmental Science

UNIVERSITY FARM

This 492-acre working farm features active livestock and horticultural production, making it possible for N.C. A&T to honor the land grant university mission of learning, discovery and engagement with the farming community.

Fulfilling that mission is crucial for North Carolina, where agriculture is worth $84 billion a year and is the state's largest industry, employing more than 17 percent of the workforce.

The University Farm plays an important role in maintaining the viability of the agricultural industry. Here, we educate tomorrow's agricultural professionals, research new agricultural products and practices, and advise farmers on methods to improve productivity.

The University Farm is a working, producing farm that raises crops and livestock, including dairy and beef cattle, poultry, swine, horses, meat goats and sheep. Students and faculty in the College of Agriculture and Environmental Sciences use the farm for research and education. Cooperative Extension at N.C. A&T uses the farm to test and demonstrate new crops and farming practices before introducing them to the state's farming community.

Feed crops for the farm's livestock are raised here, as well as new vegetable and specialty crops. The farm is also the site of research on sustainable agriculture and natural resources conservation, including swine waste research and soil conservation.

Environmental Science

North Carolina Central University

The Environmental Science concentration within the Environmental and Geographic Sciences B.S. program at North Carolina Central University offers a broad interdisciplinary curriculum focusing on pollution and anthropogenic impacts on the earth system. This program equips students with a comprehensive "Environmental Science" foundation, essential for modern scientists.

Education and Training
Students can pursue either a B.S. in Environmental and Geographic Sciences or an M.S. in Environmental, Earth, and Geospatial Sciences, available in both traditional and fully online formats. The department also offers an accelerated bachelor-to-master's (ABM) track and a nationally accredited Geospatial Intelligence (GEOINT) certificate program. Notably, NCCU is among the few HBCUs with an uncrewed aircraft systems (UAS) certificate program.

Faculty and Research
The department boasts eight full-time faculty members with expertise in various fields, including geospatial science, data science, remote sensing, and climatology. Faculty members are actively involved in research and engage students in their projects. Students present their research at national conferences, supported by grants and departmental funding.

Research and Collaborations
The Department of Environmental, Earth, and Geospatial Sciences (DEEGS) has a strong record of interdisciplinary research and collaborations with other institutions and international partners. Recent projects include NASA-funded research on machine learning for natural hazard detection and Department of Defense-funded geophysical investigations. Active research areas cover data science, geospatial analysis, geohazards, health disparities, water and air quality, nanofabrication for environmental remediation, and geoscience education.

Career Development and Opportunities
DEEGS is committed to career-focused education, with graduates finding employment in corporate sectors, government, and nonprofits. Alumni have pursued advanced degrees at prestigious universities and secured positions at organizations like the National Geospatial-Intelligence Agency and the Environmental Protection Agency. The department facilitates career exposure through guest lectures and seminars featuring professionals from various fields.

Facilities and Resources
The department is housed in the Mary Townes Science Building, featuring laboratories for GIS, remote sensing, environmental science, and geophysics. Facilities include dedicated graduate student spaces, storage areas, and a seismology station. The GIS/RS lab provides extensive instructional support and access to online courses through ESRI's virtual campus.

NCCU's Environmental and Geographic Sciences program provides a robust and interdisciplinary education, preparing students for diverse careers in environmental and geospatial sciences. The program's strength lies in its integration of broad scientific foundations with practical research and career development opportunities. The department's active engagement in cutting-edge research and

Environmental Science

its numerous collaborations enhance the educational experience, making NCCU a valuable resource for students aspiring to become leaders in addressing environmental challenges.

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Environmental Science

Prairie View A&M University

Bachelor of Science in Agriculture with a concentration in…

Natural Resources and Environmental Sciences
The Bachelor of Science in Agriculture with Natural Resources and Environmental Sciences (NRES) concentration will help to create opportunities for the prospective students to study a multidisciplinary program that prepares students to solve environmental issues that are impacting natural resources. This program will cater to students who are seeking a Bachelor's degree to serve in the public (e.g., USDA, USGS, NASA, and others) and private sectors, acquire higher-paying jobs, or aspire to pursue terminal degrees in order to qualify for a career in academia or in research institutions. After completion of this program, students can react, adapt and critically think ahead to contribute significantly to solving societal needs at the global, national, state, and local levels. Successful graduates will be ready for mid and high-level careers for different stakeholders in support of natural resource and environmental sciences.

Plant and Soil Sciences
The Bachelor of Science in Agriculture with concentration in Plant and Soil Sciences prepares students to understand the interrelationships between sustainable crop production, environmental factors, soil management and conservation, and environmental protection. This concentration provides students with the knowledge base to function in a variety of public and private sector careers and industries including the USDA NCRCS, Extension and State Regulatory Agencies, Farm Management, Nursery and Landscaping, Consulting, Natural Resource Inventory, and Land Use Planning and Management. It also prepares students for further education in Graduate or Professional School.

Natural Resources & Environmental Sciences

Promote and protect our natural resources, advance your profession, and follow your passion. Prairie View A&M University's Master of Science program in Natural Resources and Environmental Sciences makes your career goals possible. The professional program provides a pathway for manifesting careers in academic teaching and research, or applied research and extension in educational and governmental institutions, international, national, and state technical assistance and policy agencies, agricultural and forestry industries, consulting firms, and private nonprofit and non-governmental organizations.

The curriculum provides a thorough background and research opportunities in:

- Climate Change and Climate Extremes (drought/flood)
- Water-energy-food Nexus
- Soil Health
- Watershed Management and Hydrology
- GIS and Remote Sensing
- Natural Resources Economics and Environmental Planning, and
- Other natural resources-related fields

Environmental Science

The program offers both thesis and non-thesis options. Students are given opportunities to work on projects related to above topics and other issues on natural resources and environmental sustainability and resiliency.

PVAMU's MS degree in Natural Resources and Environmental Sciences offers:

- Assistantships to promising students for pursuing the program.
- Close mentorship and support from experienced and respected faculty.
- Research experience that involves fieldwork and real-world applications.
- Courses use latest technologies and prepare students for their professional growth.
- 36 semester credit hours of course work that can be completed in two calendar years.

- **Award and Purpose:** Ali Fares, a professor at Prairie View A&M University (PVAMU), received a $750,000 grant from the USDA-NIFA to enhance PVAMU's capacity in precision agriculture (P.A.) research, education, and training.
- **Collaborations:** PVAMU will collaborate with the University of Minnesota, two USDA-ARS labs, and the University of California-Davis AI Institute for Food Systems.
- **Technology Focus:** The project will leverage AI, UAS (Unmanned Aircraft System) technology, and sensor-based methods to detect and manage crop and ecosystem stresses.
- **Impact on Minority Farmers:** The project aims to make P.A. technology more cost-effective and accessible for minority farmers, improving crop yields and operational efficiency.
- **Educational Benefits:** The grant will enhance undergraduate and graduate courses at PVAMU, preparing students for technical careers in agriculture and computer science.
- **Outreach Activities:** The program will include outreach, education, and training for K-12 students, current professionals, and the public on P.A. technologies.
- **Research and Curriculum Development:** The initiative will introduce new models into at least eight courses, focusing on data analytics and innovative agricultural technologies.
- **Project Leadership and Goals:** Led by Ali Fares, the project seeks to solve food security challenges for limited-resource farmers and contribute to PVAMU's mission of economic development through cutting-edge research.
- **Additional Contributors:** Key contributors include Co-PIs Ahmed Ahmed, Ram Ray, Kesha A. Henry, Ripendra Awal, Mohamed Chouikha (PVAMU), and Mulla David, Yang Ce, Chiang Yao-Yi (University of Minnesota).
- **Award and Purpose:** Dr. Ram Ray of Prairie View A&M University (PVAMU) received a $499,599 grant from NASA for his project on characterizing precipitation distribution using in situ and satellite measurements.
- **Project Details:** The project will install a NASA Global Precipitation Monitoring (GPM) rain gauge on the PVAMU research farm, enhancing precise precipitation measurement and calibration of other sensors.
- **Technological Integration:** The rain gauge includes an automatic data logger with cell phone modems for direct data transmission to servers.
- **Research and Application:** The project aims to use accurate precipitation data to validate satellite precipitation and apply it in hydrological models to address critical water resource issues in southern Texas.
- **Collaborators:** Co-principal investigators include Dr. MD Jobair Bin Alam and Dr. Gebrekidan Tefera.

Environmental Science

- **Student Involvement:** PVAMU students will gain experience in remote sensing, field measurements, data pre-processing, and application in climate, hydrology, and watershed management research.
- **Broader Impact:** The data will support NASA Earth Science focus areas and benefit stakeholders involved in climate change and water resources management.
- **Institutional Advancement:** The project contributes to PVAMU's goal of advancing from an R2 to an R1 research institution, increasing its visibility in the global research community.

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Environmental Science

Savannah State University

The B.S. degree program in Environmental Science at Savannah State University (SSU) offers a comprehensive curriculum aimed at preparing students for careers in environmental science and for advanced studies in related fields. This program integrates knowledge from natural and social sciences, equipping students with the skills to address environmental issues in local and state communities and support governmental and industrial problem-solving efforts.

Key contacts for the program include Dr. Carol Pride (Department Chair) and Professor Kenneth Sajwan. The program is enriched by SSU's strategic location in a growing port city adjacent to a salt marsh tidal creek, providing students with unique opportunities for marine and environmental training and research. The proximity to diverse coastal environments is beneficial for hands-on learning and research activities.

The Department of Marine & Environmental Sciences at SSU is known for quality teaching through high-impact practices, extensive student research involvement, numerous grants supporting extracurricular engagement, and notable post-graduate success. Student engagement in research and practical learning experiences is a cornerstone of the degree programs.

Collaborations with prestigious institutions and organizations, such as the NOAA Living Marine Resources Cooperative Science Center (LMRCSC), United States Geological Survey, Georgia Aquarium, and several universities, enhance the program. SSU also offers various grants, internships, and fellowships through partnerships with entities like the Department of Education, NOAA LMRCSC, NSF, and the US Department of Energy.

The university boasts extensive marine and environmental research facilities, including multiple research vessels, floating docks, wet laboratories, a greenhouse, an aquaponics system, and marine specimen collections, providing students with robust resources for their studies and research.

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Environmental Science

Spelman College

Program Goals and Structure

The Environmental Sciences Program (ESP) aims to:

- Prepare Students for Graduate School and Employment: Provide a strong foundation in STEM and environmental science concepts, equipping students for advanced studies or professional careers.
- Address Global Environmental Challenges: Develop students' skills and knowledge to tackle pressing environmental issues.
- Promote Sustainability and Environmental Literacy: Instill the principles of sustainability and environmental stewardship as a way of life.

ESP offers three areas of concentration:

- Graduate School
- Pre-Health
- Dual-Degree Engineering

Mission Statement

The Environmental and Health Sciences Department focuses on the sustainability of human health and the environment. It leverages faculty expertise to provide cutting-edge research opportunities, discussions with leading scientists, and community-based initiatives focused on sustainability. The department also facilitates career-related internships through partnerships with leading institutions and government agencies.

Global Study and Student Learning Outcomes

The program offers an interdisciplinary global experience addressing health concerns in both industrialized and developing countries. Students explore health disparities, public health issues, and environmental changes through case-based learning and service-learning projects, enhancing their workplace competencies and applying didactic knowledge.

Key learning outcomes include:

- Cultural Competency: Understanding and delivering culturally competent health care in international settings.
- Healthcare Models Application: Effectively applying health care models, theories, and tools to improve healthcare delivery.

Activities and Organizations

ESP encourages student involvement in various professional organizations, such as:

- Air and Waste Management Association
- American Geological Institute
- Ecological Society of America
- National Association of Environmental Professionals
- Association for Environmental Studies and Sciences
- American Geophysical Union
- American Meteorological Society

Environmental Science

Environmental Task Force (ETF): A student organization promoting sustainability at Spelman. ETF has successfully led initiatives like eliminating trays in the cafeteria to reduce waste and conserve resources.

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Environmental Science

St Philip's College

The Environmental Science program is designed to provide students with a solid foundation in scientific methods and principles to address and mitigate environmental damage. It is a multidisciplinary program integrating natural sciences and focusing on the interaction between human populations and natural systems. The program prepares students for both entry-level positions and further academic pursuits in environmental science and related fields.

Learning Objectives
Students in the Environmental Science program will:

- Gain a scientific perspective on environmental issues.
- Understand the relationship between human activities and natural systems.
- Learn to apply the scientific method to solve environmental problems.
- Develop skills in observing, collecting, and analyzing data using biological and chemical principles.
- Study the interactions between ecological and social systems.

Curriculum and Skills Development
The program emphasizes practical and theoretical knowledge, enabling students to:

- Apply scientific principles to environmental challenges like climate change, water pollution, waste disposal, and habitat loss.
- Utilize a multidisciplinary approach to address complex environmental issues.
- Develop proficiency in biology and chemistry to understand and mitigate environmental problems.
- Gain hands-on experience in data collection and analysis.

Career Pathways
Graduates of the program are well-equipped for various careers in the environmental sector, including:

- Environmental Consultant: Advising organizations on environmental best practices and regulatory compliance.
- Science Teacher: Educating the next generation about environmental science and sustainability.
- Natural Resource Conservation Specialist: Working to preserve and manage natural resources.
- Environmental Advocate: Promoting environmental awareness and influencing policy changes.
- Resource Management Specialist: Managing natural resources sustainably.
- Environmental Lab Technician: Conducting experiments and analyzing environmental samples in a laboratory setting.

Additionally, the program provides a strong foundation for further studies in related fields such as biology, chemistry, politics, and economics. Students can transfer to four-year institutions to pursue advanced degrees and specializations in environmental science.

Environmental Science

Unique Features of the Program

The Environmental Science program stands out due to its multidisciplinary nature, which integrates various scientific disciplines to provide a comprehensive understanding of environmental issues. Key features include:

- Interdisciplinary Approach: Combining natural sciences with ecological and social systems for a holistic view of environmental challenges.
- Scientific Method Application: Emphasizing the use of scientific methods to observe, analyze, and solve environmental problems.
- Practical Skills Development: Providing hands-on experience in data collection, analysis, and real-world problem-solving.
- Pathway to Advanced Studies: Preparing students for seamless transfer to four-year institutions for further academic pursuits.

Program Impact and Relevance

The Environmental Science program is highly relevant in today's context, where environmental challenges are at the forefront of global concerns. By training students to understand and address these issues scientifically, the program contributes to the development of skilled professionals who can make significant contributions to environmental conservation and sustainability. The program's focus on practical skills and multidisciplinary knowledge ensures that graduates are well-prepared to tackle the complex environmental issues facing our world today.

Conclusion

The Environmental Science program provides a comprehensive and multidisciplinary education that equips students with the necessary skills and knowledge to address environmental challenges. Its emphasis on scientific methods, practical experience, and interdisciplinary learning prepares graduates for successful careers and further studies in the environmental sciences and related fields. The program is instrumental in fostering a sustainable global community by educating and empowering future environmental leaders.

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Environmental Science

Tennessee State University

Ensuring a Sustainable Global Community

The Environmental Sciences research program and concentration within the Department of Agricultural and Environmental Sciences focuses on environmental quality and natural resource systems. The mission is to advance knowledge, create new relationships, and enrich lives to ensure a sustainable global community. The vision is to maintain diverse perspectives and relevant priorities for quality research and educational opportunities.

Career Opportunities

Graduates of the Environmental Sciences program are prepared for a variety of careers, including but not limited to:

- Wildlife Manager
- Horticulturist
- Zoologist
- Microbiologist
- Soil & Plant Scientist
- Ecologist
- Sustainability Consultant
- Waste Management Officer
- Water Quality Scientist
- Nature Conservation Officer
- Wetland & Stream Ecologist
- Natural Resources Specialist
- Land Use Planner
- GIS Technician
- Environmental Safety Officer
- Invasive Species Specialist
- Seasonal Aquatic Biologist
- Park Ranger
- Geologist
- Environmental Compliance Manager
- Environmental Geologist

Deep Dive Analysis

- **Interdisciplinary and Applied Learning:**

The Environmental Sciences program stands out for its interdisciplinary approach and emphasis on applied learning. The integration of research into every course ensures that students are not only learning theoretical concepts but also applying them in real-world settings. This hands-on experience is critical for developing practical skills that are highly valued in the job market.

- **Faculty Expertise and Mentorship:**

The program's strength is bolstered by its distinguished faculty, whose wide-ranging expertise allows for a comprehensive and diverse educational experience. Faculty members engage actively in research, providing students with opportunities to participate in cutting-edge projects and gain mentorship from leaders in their fields.

- **Career Preparedness:**

The broad array of potential careers for graduates reflects the program's comprehensive curriculum and practical training. Students are well-prepared for roles in various sectors, including government, industry, and non-profits. The emphasis on sustainability and environmental management aligns with the increasing demand for professionals in these areas.

Environmental Science

- **Flexibility in Graduate Programs:**

The Master of Science in Environmental Science offers flexibility through its thesis and non-thesis options, catering to students with different career goals and schedules. The focus areas within the graduate program—Natural Resources, Plant Sciences, and Geospatial Sciences—allow students to specialize in areas of high relevance and demand.

- **Financial Support:**

The availability of financial assistance through scholarships and leadership programs is a significant advantage, making the program accessible to a wider range of students and supporting their educational and professional development.

- **Conclusion**

The Environmental Sciences program is a robust and dynamic offering that prepares students to address pressing environmental challenges. Its interdisciplinary approach, expert faculty, practical training, and flexible graduate options make it a leading choice for students aspiring to make a significant impact in the field of environmental science and sustainability.

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Environmental Science

Tuskegee University

The Environmental, Natural Resource, & Plant Sciences B.S. degree program offers multiple interdisciplinary options tailored to address different aspects of environmental and plant sciences. This program prepares students for diverse career paths, from environmental science and health to natural resource management and horticulture.

Program Options

- Environmental Sciences Option
  - Focus: Human impact on the environment and resource management.
  - Career Paths: Environmental scientists, environmental lawyers, policymakers, government regulators, environmental activists.
  - Curriculum: Interdisciplinary courses covering environmental issues and solutions.

- Environmental Health Option
  - Focus: Influence of the environment on human health and disease.
  - Career Paths: Toxicologists, environmental health specialists, public health specialists, health policy analysts.
  - Curriculum: Courses in environmental risk factors and health.

- Natural Resources Option
  - Focus: Management, sustainability, and use of natural resources.
  - Career Paths: Conservationists, resource planners, fish and wildlife conservationists, park rangers.
  - Curriculum: Broad-based scientific courses related to natural resource management.

- Forestry, Wildlife, and Fisheries Option
  - Structure: 3+1 arrangement with three years at Tuskegee University and one year at a partner institution.
  - Focus: Protection, conservation, and management of fish and natural resources.
  - Career Paths: Park rangers, forest managers, land use planners, wildlife biologists, ecologists, fisheries biologists, zookeepers, wildlife area managers.
  - Curriculum: Specialized courses in forestry, wildlife, and fisheries.

- Plant and Soil Sciences Option
  - Focus: Conservation of soil and water resources, plant/soil ecosystems.
  - Career Paths: Soil conservationists, crop advisors, extension agents, plant breeders, crop biotechnologists.
  - Curriculum: Courses in soil and plant ecosystems, conservation techniques.

- Horticulture Option
  - Focus: Production, physiology, and management of horticultural crops.
  - Career Paths: Greenhouse managers, floral designers, crop producers, landscape designers, nursery managers.

- Curriculum: Courses on horticultural crop production and management.

Master of Science in Environmental Science

- Program Design: Tailored for working professionals, offering flexibility to complete an advanced degree without disrupting careers.
- Structure: Interdisciplinary core with electives, 32 credit hours including a 6 credit project.
- Concentration Areas: Climate change, watershed management, environmental health, fate and transport of environmental toxicants, soil health, nutrient and ecosystem management.
- Project Areas: Customizable to meet student needs and can be aligned with employers.

Deep Dive Analysis

- Interdisciplinary Approach:

The program's strength lies in its interdisciplinary approach, offering comprehensive education across various environmental and plant science domains. This prepares students for a wide range of career opportunities and allows them to tailor their education to their interests.

- Career Preparation:

Each option is designed to prepare students for specific career paths, ensuring that graduates have the necessary skills and knowledge to excel in their chosen fields. The curriculum is designed to provide both theoretical knowledge and practical experience.

- Flexibility and Customization:

The Master of Science in Environmental Science is particularly noteworthy for its flexibility, accommodating working professionals by allowing them to complete their degrees without disrupting their careers. The customizable project areas further enhance this flexibility.

- Collaboration and Practical Experience:

The 3+1 arrangement in the Forestry, Wildlife, and Fisheries Option is a unique feature, providing students with a blend of academic learning and practical experience. This collaboration with partner institutions enriches the educational experience and prepares students for graduate studies.

- Focus on Sustainability and Conservation:

The program options emphasize sustainability and conservation, reflecting a commitment to addressing global environmental challenges. This focus is crucial given the increasing importance of sustainable practices in various sectors.

- Comprehensive Curriculum:

The detailed curriculum for each option ensures that students receive a well-rounded education, covering essential topics relevant to their fields. This thorough preparation is critical for addressing complex environmental issues and contributing to sustainable development.

Environmental Science

- Support for Professional Development:

By offering research assistantships, internships, and practical projects, the program supports the professional development of its students, ensuring they graduate with real-world experience and a robust resume.

Conclusion

The Environmental, Natural Resource, & Plant Sciences Program at Tuskegee University offers a comprehensive and flexible education designed to prepare students for diverse careers in environmental and plant sciences. With its interdisciplinary approach, focus on sustainability, and commitment to practical experience, the program equips graduates with the skills and knowledge needed to address today's environmental challenges and contribute to a sustainable future.

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Environmental Science

University of Maryland Eastern Shore

The University of Maryland Eastern Shore (UMES) offers a robust Bachelor of Science in Environmental Science, designed to provide students with the knowledge, skills, and real-world experience necessary to address today's pressing environmental issues. The program emphasizes scientific discovery, integration, and application to find solutions for environmental problems impacting communities and businesses globally.

Immersive Learning Environment:

- 600-acre Campus: Provides a diverse range of ecosystems for hands-on learning and research.
- Research Assistantships and Internships: Opportunities at laboratories, institutes, and with local businesses, government agencies, and nonprofits.

Customizable Degree Tracks:

- Environmental Science, B.S.
- Environmental Science, Environmental Chemistry, B.S.
- Environmental Science, Marine Science, B.S.
- Dual Degree Program with Salisbury University: Earn a B.S. in Biology from Salisbury and a B.S. in Environmental Science from UMES.

Accreditation:

Accredited by the Middle State Commission on Higher Education, ensuring high standards of academic excellence and professional preparation.

Curriculum and Courses

Core and Elective Courses:

- Principles of Environmental Science: Human influences on environments integrating biological, physical, and chemical sciences.
- Marine Ecotoxicology: Approaches to solving marine environmental pollution issues.
- Evolution: Advanced study of evolutionary biology, including ecological and genetic processes.

Degree Requirements:

- 120 semester hours, including 42 general education hours and 78 program-specific hours.

Career Prospects

Graduates with an Environmental Science degree from UMES are well-prepared for various career paths, including:

- Water Treatment Plant Managers
- Air Pollution Supervisors
- Marine Biologists
- Energy and Environment Specialists
- Environmental Chemists/Biologists
- Oceanographers
- Soil Conservationists
- Fisheries Scientist

Environmental Science

Employment for environmental scientists and specialists is projected to grow by 5% by 2031, driven by increased awareness and need for sustainable solutions to environmental issues.

Advanced Studies

Graduate Programs:

Marine, Estuarine, and Environmental Sciences (MEES), M.S. and Ph.D.: Comprehensive, flexible programs across the University System of Maryland, covering areas like Ecology, Environmental Chemistry, Fisheries Science, and Oceanography.

Financial Aid and Scholarships

UMES offers various financial aid opportunities, including:

- Louis Stokes Alliances for Minority Participation (LSAMP)
- Research Experience and Extension for Undergraduates (REEU)
- Research Experience for Undergraduates (REU)
- UMES Land Grant Scholarship
- Living Marine Resource Cooperative Research Center Funding

The University of Maryland Eastern Shore provides an ideal setting for environmental science studies, with access to diverse ecosystems and a strong commitment to research and community engagement. Join UMES to become a leader in solving environmental challenges and contributing to a sustainable future.

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Environmental Science

University of the District of Columbia

The University of the District of Columbia's College of Agriculture, Urban Sustainability and Environmental Sciences (CAUSES) is dedicated to advancing quality of life and economic opportunities through innovative academic and community programs. As an urban land-grant institution, CAUSES offers a diverse range of degree and certificate programs, alongside community education via its specialized centers focusing on urban agriculture, resilience, and nutrition. Its mission is to deliver research-based initiatives that benefit local, national, and global communities, with a vision to become a world leader in these efforts.

Goals for CAUSES Graduates:

- Global citizens committed to local relevance
- Adept at solving urban problems
- Committed to health and wellness, food and water security
- Skilled at navigating diverse social, cultural, built, and natural environments
- Independent thinkers and collaborative team players
- Adaptive lifelong learners

Goals for District Residents and Organizations:

- Improve food security
- Mitigate climate change
- Combat childhood obesity and other food-related illnesses
- Improve food safety
- Improve water safety and management
- Expand alternative energy solutions

The University of the District of Columbia's College of Agriculture, Urban Sustainability and Environmental Sciences (CAUSES) integrates academic excellence with community engagement, offering programs in urban sustainability, water resources management, nutrition, urban architecture, and community planning. Emphasizing "The Community is our Classroom," CAUSES combines theory with practical community knowledge through research initiatives and outreach programs. Committed to improving local economic, social, cultural, and environmental conditions, CAUSES serves as a model for impactful learning beyond the region. Recognizing global interconnectivity, CAUSES prepares students for the global marketplace by promoting systemic thinking, teamwork, and innovation across its degree and professional development programs.

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Environmental Science

University of Virgin Islands

Overview
The Center for Marine & Environmental Studies (CMES) at the University of the Virgin Islands (UVI) was established in 1999 and serves as the research and outreach arm of UVI's Marine Science Program. CMES is strategically located in the United States Virgin Islands, offering unparalleled access to diverse tropical marine environments for both academic and community-focused initiatives.

Academic Programs
Undergraduate:
- Minor in Environmental Science
- Bachelor of Science (BS) in Marine Biology
- Bachelor of Arts (BA) in Marine Biology

Graduate:
- Master of Marine & Environmental Science (MMES)

Mission and Vision
To advance knowledge and learning in marine, coastal, and watershed systems through research, education, student training, and outreach, disseminating this knowledge to academic bodies, the scientific community, government agencies, and the public. To develop an international center of excellence in tropical ecology for the Caribbean region, contributing significantly to the understanding and management of marine and terrestrial ecosystems.

Goals
- Research: Address tropical island environmental problems through innovative research.
- Collaboration: Foster collaboration among researchers at local, regional, and national levels.
- Education and Training: Equip students and regional governments to manage natural resources and promote sustainable development.
- Public Awareness: Enhance public understanding of the connection between healthy marine resources and social, economic, and political structures.

Research and Facilities
Key Research Areas:
- Coral Reef Ecology
- Oceanography
- Terrestrial Ecology
- Climate Studies

Research Facilities:
- MacLean Marine Science Center (St. Thomas): Supports marine science research and education.
- Environmental Analysis Lab (St. Thomas): Provides analytical services for various environmental projects.
- Virgin Islands Environmental Resource Station (St. John): Facilitates field research and environmental education.

Environmental Science

- Virgin Islands Marine Advisory Service (St. Thomas/St. Croix): Conducts community outreach activities.
- Environmental Analysis Lab (EAL): Offers versatile analytical services, including bacterial analysis, nutrient analysis, and suspended solids testing. Provides field services for sample collection and in-situ water testing.

Community Outreach

- **Youth Ocean Explorers (YOE) Summer Program:**

A 4-week hands-on marine science program for middle and high school students, focusing on marine biology, careers in marine science, and environmental impacts.

- **Partnerships and Funding:**

CMES collaborates with local and federal government agencies, NGOs, and universities. Notable partnerships include the National Science Foundation's VI-EPSCoR program and Rutgers University. These collaborations have secured significant funding for infrastructure improvements and research projects.

- **Ocean Glider Laboratory:**

Established through an NSF award, this lab supports oceanographic research and STEM education. It features advanced ocean gliders equipped with sensors for real-time data transmission.

Academic Programs and Support

Bachelor in Marine Biology:

Offers both B.A. and B.S. degrees, preparing students for postgraduate and professional careers. Programs emphasize student participation in scientific research.

Master of Marine & Environmental Science (MMES):

An advanced degree program with two tracks:

- Science Track: Focus on research.
- Management Track: Focus on resource management.

The MMES program draws on faculty expertise from CMES and the Division of Science and Mathematics.

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Environmental Science

Hampton University

The Department of Marine and Environmental Science (MES) at Hampton University is renowned for having the top marine-focused undergraduate program among Historically Black Colleges and Universities. The program prepares students for careers in marine biology, oceanography, environmental law, protection, and consulting, with graduates holding positions in government, NGOs, academia, and industry.

The interdisciplinary Bachelor's degree in Marine and Environmental Science integrates core concepts from biology, chemistry, physics, and mathematics. A senior research thesis is required for graduation, fostering critical thinking, quantitative, and writing skills. Graduates are well-prepared for graduate studies in related fields.

The department offers special programs and funding through NOAA's Living Marine Resources Cooperative Science Center, providing over $2M in support for research stipends and participation in science symposiums. Students can present their research at the ASLO annual conference through the ASLO Multicultural Program. Collaborations with institutions such as Virginia Tech, VIMS, and the Chesapeake Bay Foundation enhance research opportunities.

Strategically located on the Hampton River near Chesapeake Bay, the department utilizes various vessels, including a 40-foot research vessel and several smaller boats, for fieldwork in marine, estuarine, and freshwater environments. Faculty actively involve undergraduates in ongoing research projects.

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