

Agriculture and Environmental Sciences, PhD

Concentration: Sustainable Agriculture and Environmental Sciences

College of Agriculture & Environmental Sciences

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Sustainable agriculture is an integrated system of plant and animal production practices with a site-specific application that will, over the long term, satisfy human food and fiber needs, enhance environmental quality, make the most efficient use of natural resources, sustain the economic viability of farm operations, and enhance the quality of life for farmers and society as a whole. The goal of sustainable agriculture is to attain healthy environment, economic profitability, and social and economic equity, with minimal negative impact on the environment.

The PhD in Agriculture and Environmental Sciences concentration ‘Sustainable Agriculture and Environmental Sciences (SAES)’ is designed and delivered in a way that builds capabilities in core analytical, conceptual, communications and research skills, as well as provide the knowledge base required to develop careers in the broad area of sustainable agriculture and environmental sciences. The SAES concentration will produce scientists who will integrate knowledge in plant science, natural resources, soil science, microbiology, crop science, agronomy, Integrated Pest Management, biotechnology, economics, biological engineering, environmental science, etc., to teach, conduct research and practice agriculture that is environment friendly, while maintaining food security and profitability in the 21st century and beyond.

Additional Admission Requirements

- At least one degree in a Food, Agricultural, Biological or Environmental Science or closely related discipline.
- Master of Science degree from one of the aforementioned areas with a cumulative GPA of 3.3.
- A Graduate Record Exam (GRE) Aptitude Exam score
- A Personal Statement, current vita, and three professional letters of recommendation (at least one from a former faculty advisor)

Program Outcomes

The program will prepare graduates to:

- Apply their critical thinking skills to solve complex issues impacting sustainable agriculture and environmental sciences
- Demonstrate effective communication skills through project and dissertation work and conference presentations.
- Conduct research or undertake advanced projects in an area of sustainable agriculture and environmental sciences
- Be active and effective leaders in their professional societies and will demonstrate and model disciplinary expertise.

Degree Requirements

Total credit hours: 65 (post baccalaureate)

- Core courses (15 credits)
- Seminar (2 credits)
- Dissertation (12 credits)
- Supervised Teaching/Professional Development (3 credits)
- Pass qualifying exam, preliminary exam, and dissertation defense
- In consultation with advisor, take 18 credit hours within natural resources and environmental design or other area subject to the recommendation of the student committee (**NARS 600** –

999, HORT 600 – 999, ENVS 600 – 999, SLSC 600 – 999, and WMI 600 – 999)

- In consultation with the advisor, take 15 credit hours of additional elective courses relevant to research area**

****Students who did not take a statistics course within their Master's Degree program will take an introductory statistics class in lieu of one Elective Area course.****