

College of Engineering, Graduate

Purpose and Goals

The graduate Engineering programs are designed to enhance the student's research capabilities and to make the student more competitive in the professional practice. They are the continuation of the intellectual, scholarly and professional development of the individual producing technological leaders and creative engineers and computer scientists devoted to the discovery, development, and refinement of knowledge and methodologies associated with the various engineering and computer disciplines. Each degree candidate is expected to have demonstrated the highest degree of professional ethics and standards. The College of Engineering provides excellent facilities in support of its graduate programs. For more information on our discipline-specific graduate programs:

- Department of Computer Science (<https://catalog.pvamu.edu/academicprogramsanddegreeplans/roygperrycollegeofengineering/computerscience/grad/>)
- Department of Electrical and Computer Engineering (<https://catalog.pvamu.edu/academicprogramsanddegreeplans/roygperrycollegeofengineering/electricalandcomputerengineering/grad/>)

Admission to Programs

Master's Programs

The following are university admission requirements to the master's programs in the College of Engineering. Students will be awarded graduate degree status admission if they satisfy all the admission requirements.

1. Meet the requirements for admission to Graduate Studies.
2. Have an undergraduate degree from an ABET (or equivalent) accredited program.
3. Have a cumulative Grade Point Average (GPA) of 2.75 on a 4.00 scale.
4. Have a previous educational background in the intended area of study.

Students may be awarded non-degree admission status if they satisfy the requirements as outlined in the catalog section "Types of Admission" under Admissions Information and Requirements.

Doctoral Program

The following are admission requirements to the Doctor of Philosophy program in the Department of Electrical Engineering. The candidate should:

1. Hold a baccalaureate degree in engineering, mathematics, or the physical sciences conferred by a regionally accredited institution.
2. Have a 2.75 Grade Point Average (GPA) on a four-point scale on all completed undergraduate course work.
3. Hold a Masters of Science degree in Electrical Engineering or one of the related disciplines, conferred by an accredited institution.
4. Have a 3.2 GPA on all completed graduate work.
5. Produce original transcripts for all academic work completed at the undergraduate and graduate levels.
6. Submit three letters of recommendation. These should preferably come from faculty sufficiently acquainted with the student to comment on the student's potential to successfully complete the doctoral program.
7. Submit a personal statement describing the applicant's academic or professional accomplishments, research interest, and professional goals.
8. International students may be required to take the Test of English as a Foreign Language (TOEFL); a score of 550, or higher, is required.

Graduate Certificate in Sustainable Engineering

Admission Requirements

Students and professionals interested in pursuing this Graduate Certificate for Credit:

1. Must have a bachelor's degree or higher degree in Engineering or Computer Science or be currently enrolled in the 5-year BS/MS program in the College of Engineering;
2. Be enrolled in one of the graduate programs in Engineering or Computer Science.
Working professional and others who are not seeking a degree from the university (should first apply for admission to the university as a non-degree seeking student) must apply for the certification

Program Outcomes

Upon completion of this program, the students are expected to:

1. Grasp sustainable engineering principles comprehensively.
2. Apply sustainability principles proficiently in engineering solutions.
3. Expertly optimize environmental impact throughout project life cycles.
4. Possess skills to integrate renewable energy for sustainable designs.
5. Proficiently solve complex challenges using an interdisciplinary approach.
6. Adhere to regulatory and ethical standards in sustainable engineering.
7. Communicate sustainable concepts effectively to diverse audiences.
8. Apply global insights to sustainable engineering practices.

Program Requirements

Required Courses (select 3 courses from the list below)

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CVEG 5302	Air Pollution Engineering
CVEG 5304	Energy and Environmental Sustainability
ELEG 6386	Renewable Energy Sources
CHEG 5304	Remediation Technologies

Elective Courses (select 3 courses from the list below)

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GNEG 5319	Special Topics
CVEG 5300	Physical/Chemical Unit Operations in Water and Wastewater Treatment
CVEG 5301	Hazardous Waste Management
CHEG 5303	Environmental Processes
ELEG 6387	Smart Grid: Fundamentals of Design and Analysis
ELEG 6374	Power Gen Oper Control

Total Hours

18