BACHELOR OF SCIENCE WITH A MAJOR IN ELECTRICAL ENGINEERING, ENERGY OPTION

The bachelor of science with a major in electrical engineering, energy option prepares students to work in technical energy fields such as electric utility companies and in research into improved methods of generation, transmission, and distribution of electrical energy.

The electrical engineering program is accredited by the Engineering Accreditation Commission of ABET (http://www.abet.org).

Double major

SEAS and non-SEAS students interested in pursuing the BS in electrical engineering as a double major should see Double Major under SEAS Regulations (https://bulletin.gwu.edu/engineering-applied-science/#seasregulationstext) in this Bulletin.

Visit the program website (http://www.ece.seas.gwu.edu/bachelor-science-electrical-engineering/) for additional information.

ADMISSIONS

For more information on the admission process, please visit the Office of Undergraduate Admissions website. Applications may be submitted via the Common Application.

Supporting documents not submitted online should be mailed to:
Office of Undergraduate Admissions
The George Washington University
800 21st Street NW, Suite 100
Washington DC 20052

Contact for questions:
gwadm@gwu.edu or 202-994-6040

REQUIREMENTS

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<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<td>The following requirements must be fulfilled: 129 credits as outlined below. A minimum technical GPA of 2.20 and SEAS GPA of 2.00. A student’s technical GPA is calculated using all technical engineering courses outlined in the fifth, sixth, seventh, and eighth semester of curriculum.</td>
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Recommended program of study

The plan of study lists all course requirements in sequence for the degree. Students should review this information carefully and consult their advisor before changing the sequence of any courses.

First semester

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<tr>
<td>CHEM 1111</td>
<td>General Chemistry I ¹</td>
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Sixth Semester

- ECE 3125: Analog Electronics Design
- ECE 3915W: Electrical and Computer Engineering Capstone Project Lab I
- ECE 4320: Fields and Waves II
- MAE 2131: Thermodynamics
- MAE 3134: Linear System Dynamics

Seventh Semester

- ECE 4620: Electrical Power Systems
- ECE 4710: Control Systems Design
- ECE 4920W: Electrical and Computer Engineering Capstone Project Lab II

Electives:
- Humanities, social science, or non-technical elective

Eighth Semester

- ECE 3410: Communications Engineering
- ECE 4610: Electrical Energy Conversion
- ECE 4662: Power Electronics
- ECE 4925W: Electrical and Computer Engineering Capstone Project Lab III

Electives:
- Humanities, social science, or non-technical elective

1 Course satisfies the University General Education Requirement (https://bulletin.gwu.edu/university-regulations/general-education/) in math, science, and writing.

2 All electrical and computer engineering students take five courses to satisfy the ECE humanities, social science, or non-technical elective requirement. Three of these courses—one in humanities and two in social sciences—must be on the University General Education Requirement list; one course must be PHIL 2135 (or NSC 4176 for students in the NROTC Program); and one course can be in the humanities/social sciences, or a non-technical course related to public health, safety, and welfare; global cultural, social, environmental, and economic factors; or innovation, entrepreneurship, and creativity. For the last category, students can consider taking DNSC 1051, DNSC 4404, EMSE 4410, ISTM 4223, MGT 3300, MGT 3301, MGT 3302, MGT 3303, or MGT 4003. The non-technical course cannot focus on scientific/mathematical approaches or technology. All courses selected to satisfy this

3 One 3-credit technical elective course must be selected with the approval of the advisor from upper-division undergraduate (2000 to 4000 level) or graduate courses in engineering, computer science, mathematics, physical sciences, or biological sciences. Exceptions must be approved by the advisor.