BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING WITH A CONCENTRATION
Power and Energy Systems

Students pursuing the Bachelor of Science in Electrical Engineering degree may choose to add a concentration in Power and Energy Systems. The plan of study for the BSEE with a Concentration in Power and Energy Systems is similar to the BSEE plan of study with two primary exceptions:

- All BSEE students are required to complete Technical Elective courses, usually during the junior and senior year. Students pursuing the BSEE with a Concentration in Power and Energy Systems are required to enroll in approved Power and Energy Technical Electives only. See Course List (below).
- During the senior year, Power and Energy Systems Concentration students must complete an intensive, two-semester energy-related senior design project.

Furthermore, students in the Concentration are strongly encouraged to take the Fundamentals of Engineering exam prior to graduation.

How to Enroll in the Power and Energy Systems Concentration

Students must apply for admission and may enter the program during their Sophomore or Junior years only. To be admitted to the program, students must have completed Physics II (PHYS 2102), Calculus I, II, and III (MATH 1241, 1242, and 2241), and Network Theory II (ECGR 2112). An overall GPA of 3.0 is required for admission into the Concentration in Power and Energy Systems. In order to remain in the Concentration, students must maintain a minimum (overall and program) GPA of 3.0.

Course List

Students must enroll in the following prerequisite courses:

- ECGR 3142: Electromagnetic Devices
- ECGR 3112: Systems Analysis II

Students must enroll in the following Power and Energy Technical Electives:

- ECGR 4111: Control Systems Theory I
- ECGR 4141: Power Systems Analysis I
- ECGR 4144: Power Electronics I
- MATH 2164: Linear Algebra

Students must also complete two additional three-credit Power and Energy technical electives at the 4000 level or higher. A department-approved list of such courses will be posted prior to the opening of registration each semester.

The suggested plan of study is attached.
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Application

The application process consists of completing the top portion of this form along with a Change of Major Form. Submit both to the Student Services Specialist in EPIC 2242. Upon review of the application by the Associate Chair, students wishing to enroll in the concentration will receive an email from the department regarding the status of their application.

Student’s Name (print)  Student’s ID #

Overall GPA  Program GPA

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Semester Completed</th>
<th>Grade</th>
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<tbody>
<tr>
<td>PHYS 2102</td>
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<tr>
<td>ECGR 2112</td>
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<tr>
<td>MATH 1241</td>
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<td>MATH 1242</td>
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<tr>
<td>MATH 2241</td>
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I have completed a Change of Major Form to have the concentration added to my UNC Charlotte transcript.

Student’s Signature  Date

Department Use Only: Approved  Denied
Date: