



# EDUCATION PROGRAMS



## BS in Electrical Engineering - Power & Energy Systems Concentration

The department offers a concentration for undergraduates who are interested in the fields of power systems and power electronics. This concentration pulls together presently-offered courses to provide students with an in-depth focus towards control systems, operations, planning, system components, power electronics, and circuits.

### Progression Policies and Requirements

The department requires at least a C in every computer engineering, computer science, electrical engineering, and mathematics course used for the undergraduate degrees. Students taking ECE 201 must also have a C or better in EF 152 or EF 158.

Progression of departmental undergraduate students to the upper-division programs of the department is competitive and is based on the space available in the department.

Factors considered in the decision include overall grade

point average, grades earned in courses required in the lower division curricula of the department and College of Engineering, and seriousness of purpose and interest in departmental programs as exemplified by regular and orderly progress through the prescribed curriculum without abuse of withdrawal and course repeat privileges.

Students who take ECE 202 will be evaluated during the semester they are registered for it. Transfer students for whom ECE 202 transfer credit is given may take 9 semester hours in departmental courses before progression evaluation. All students, whether or not they transfer in, who are not accepted into the upper-division program of the department will be put in either a temporary probationary status or a non-progressed status and will not be permitted to register for any upper division courses within the department.

### Requirements for the Bachelor of Science in Electrical Engineering : Power & Energy Systems Concentration

THE UNIVERSITY of TENNESSEE   
KNOXVILLE  
Department of Electrical Engineering & Computer Science

Term 1	Hours	Milestone Notes
<a href="#">COSC 102</a> *	4	<a href="#">MATH 130</a> or higher or one Arts and Humanities*, Cultures and Civilizations*, or Social Sciences* Elective
<a href="#">EF 151</a> * or <a href="#">EF 157</a> *	4	
<a href="#">ENGL 101</a> * or <a href="#">ENGL 118</a> *	3	
<a href="#">MATH 141</a> * or <a href="#">MATH 147</a> *	4	
Term 2		
<a href="#">COSC 160</a>	4	<a href="#">MATH 130</a> or higher
<a href="#">EF 152</a> * or <a href="#">EF 158</a> *	4	
<a href="#">ENGL 102</a> *	3	
<a href="#">MATH 142</a> * or <a href="#">MATH 148</a> *	4	
Term 3		
<a href="#">CHEM 120</a> * or <a href="#">CHEM 128</a> *	4	
<a href="#">ECE 201</a> , <a href="#">ECE 255</a>	6	<a href="#">EF 151</a> * or <a href="#">PHYS 135</a> *
<a href="#">MATH 231</a>	3	
<a href="#">PHYS 231</a> *	3	
Term 4		

<a href="#">ECE 202</a>	3	<a href="#">EF 152*</a> or <a href="#">PHYS 136*</a>
<a href="#">ECE 313</a> or <a href="#">ECE 317</a>	3	
<a href="#">MATH 241</a> or <a href="#">MATH 247</a>	4	
<a href="#">MATH 251</a> or <a href="#">MATH 257</a>	3	
<a href="#">PHYS 232*</a>	4	
<b>Term 5</b>		
<a href="#">ECE 315</a> , <a href="#">ECE 325</a> , <a href="#">ECE 335</a> , <a href="#">ECE 395</a>	10	<a href="#">CBE 201</a> or <a href="#">COSC 102*</a> or <a href="#">ME 202</a> or <a href="#">MSE 201</a>
<a href="#">ECE 341</a> or <a href="#">ECE 347</a>	3	
<a href="#">Social Sciences Elective*</a>	3	
<b>Term 6</b>		
<a href="#">Arts and Humanities Elective*</a>	3	No milestones
<a href="#">ECE 316</a> , <a href="#">ECE 336</a> , <a href="#">ECE 342</a>	9	
<a href="#">Social Sciences Elective*</a>	3	
<b>Term 7</b>		
<a href="#">Arts and Humanities Elective*</a>	3	No milestones
<a href="#">Cultures and Civilizations Elective*</a>	3	
<sup>2</sup> <a href="#">EF 402</a>	1	
<a href="#">ECE 401*</a>	2	
<sup>3</sup> Power and Energy Systems Electives	9	
<b>Term 8</b>		
<a href="#">Cultures and Civilizations Elective*</a>	3	No milestones
<a href="#">ECE 402*</a>	3	
<a href="#">IE 457</a> or <a href="#">ME 457</a>	3	
<sup>3</sup> Power and Energy Systems Elective	3	
<sup>4</sup> Technical Elective	3	
<b>TOTAL</b>	<b>127</b>	

\* Meets University General Education Requirement.

1 Chosen from University General Education List.

2 Students in the Chancellor's Honors Program are not required to take EF 402.

3 Select four courses (12 hours) from: ECE 415, ECE 421, ECE 422, ECE 481, ECE 482, ECE 521, ECE 522, ECE 523, ECE 525.

4 Technical electives chosen from COSC 140, COSC 311 or MATH 300, COSC 370; CHEM 130\* or CHEM 138\*; IE 405; MSE 201, MSE 410; ME 231, ME 321, ME 331, ME 344; NE 342 or NE 347.