## Electrical Engineering (BS): Renewable Electric Energy Systems (14EEBS-14EEREN)

### Freshman Year

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Credit</th>
<th>Spring Semester</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH 101 Chemistry A Molecular Science</td>
<td>6</td>
<td>ECE 109 Intro to Computer Systems</td>
<td>3</td>
</tr>
<tr>
<td>CH 102 General Chemistry Lab</td>
<td>1</td>
<td>MA 241 Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>E 101 Introd. to Engr &amp; Prob. Solv</td>
<td>1</td>
<td>PY 205 Physics for Engineers &amp; Scientists</td>
<td>3</td>
</tr>
<tr>
<td>E 115 Intro to Computing Environments</td>
<td>1</td>
<td>PY 206 Physics for Engineers &amp; Scientists I Lab</td>
<td>1</td>
</tr>
<tr>
<td>ENG 101 Academic Writing &amp; Research</td>
<td>4</td>
<td>EC 205 Economics (EC 201, ARE 201 alternatives)</td>
<td>3</td>
</tr>
<tr>
<td>MA 141 Calculus I</td>
<td>4</td>
<td>HES_**<em>Health &amp; Exercise Studies Course</em></td>
<td>1</td>
</tr>
<tr>
<td>GEP Requirement*</td>
<td>3</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>17</td>
<td></td>
<td>15</td>
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### Sophomore Year

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Credit</th>
<th>Spring Semester</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>ECE 200 Intro to ECE Laboratory</td>
<td>4</td>
<td>COM 110 Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>ECE 209 Computer Systems Programming</td>
<td>3</td>
<td>ECE 211 Electric Circuits</td>
<td>4</td>
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<tr>
<td>MA 242 Calculus III</td>
<td>4</td>
<td>ECE 212 Fund of Logic Des</td>
<td>3</td>
</tr>
<tr>
<td>PY 208 Physics for Engineers &amp; Scientists II</td>
<td>3</td>
<td>ECE 220 Analytical Found. of ECE</td>
<td>3</td>
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<tr>
<td>PY 209 Physics for Engineers &amp; Scientists II Lab</td>
<td>1</td>
<td>GEP Requirement*</td>
<td>3</td>
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<td>15</td>
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<td>16</td>
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### Junior Year

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<thead>
<tr>
<th>Fall Semester</th>
<th>Credit</th>
<th>Spring Semester</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>ECE 301 Linear Systems</td>
<td>3</td>
<td>ECE 303 Electromagnetic Fields</td>
<td>3</td>
</tr>
<tr>
<td>ECE 302 Intro to Microelectronics</td>
<td>4</td>
<td>ECE 380 Engr Profession for EE</td>
<td>1</td>
</tr>
<tr>
<td>ST 371 Intro to Prob &amp; Dist Theory</td>
<td>3</td>
<td>ECE 305 Int. Power Systems</td>
<td>3</td>
</tr>
<tr>
<td>GEP Requirement*</td>
<td>3</td>
<td>ECE 3xx ECE Foundation Elective</td>
<td>3</td>
</tr>
<tr>
<td>HES_**<em>Health &amp; Exercise Studies Course</em></td>
<td>1</td>
<td>ENG 331 Comm for Engr &amp; Tech</td>
<td>3</td>
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<tr>
<td></td>
<td></td>
<td>GEP Requirement*</td>
<td>3</td>
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<td></td>
<td>14</td>
<td>16</td>
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</tbody>
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### Senior Year

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Credit</th>
<th>Spring Semester</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>ECE 484 Senior Design Project I</td>
<td>3</td>
<td>ECE 485 Senior Design Project II</td>
<td>3</td>
</tr>
<tr>
<td>ECE Elective</td>
<td>3</td>
<td>ECE REES Elective</td>
<td>3</td>
</tr>
<tr>
<td>ECE 452 Renew Elec Energy Syst</td>
<td>3</td>
<td>ECE Elective</td>
<td>3</td>
</tr>
<tr>
<td>Open/Technical Elective</td>
<td>3</td>
<td>Open/Technical Elective</td>
<td>3</td>
</tr>
<tr>
<td>GEP Requirement*</td>
<td>3</td>
<td>GEP IP Requirement*</td>
<td>2-3</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>14-15</td>
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</tr>
</tbody>
</table>

Minimum Credit Hours Required for Graduation*: 122

*\(I,J,K\):
Major/Program requirements and footnotes

1 Minimum grade of C- required.

2 REES electives: See Degree Audit.

3 ECE electives: See Degree Audit

4 Technical electives: CE 214, 215; ISE 311; MAE 206, 208, 201, 302, 308; MSE 201; NE 418, 419.

5 Students in the entrepreneurs program should take ECE 383/ECE 482/ECE 483, instead of ECE 380/ECE 480.

6 Grade of C (2.0) or higher required.

7 E 304, ECE 308, ECE 306, ECE 310

8. These include any ECE 3xx or ECE 4xx; CE 214 or MAE 206; ISE 311; MAE 208; MAE 201; MAE 302; MSE 302; MSE 200 or MSE 201.

*General Education Program (GEP) requirements and GEP Footnotes

To complete the requirements for graduation and the General Education Program, the following category credit hours and co-requisites must be satisfied. University approved GEP course lists for each of the following categories can be found at https://oucc.dasa.ncsu.edu/general-education-program/.

A. Mathematical Sciences (6 credit hours – one course with MA or ST prefix)
Choose from the University approved GEP Mathematical Sciences course list or the following course(s) if completed as part of the Major requirements may fulfill part or all of this requirement:

B. Natural Sciences (7 credit hours – include one laboratory course or course with a lab)
Choose from the University approved GEP Natural Sciences course list or the following course(s) if completed as part of the Major requirements may fulfill part or all of this requirement:

C. Humanities (6 credit hours selected from two different disciplines/course prefixes)
Choose from the University approved GEP Humanities course list or the following course(s) if completed as part of the Major requirements may fulfill part or all of this requirement:

D. Social Sciences (6 credit hours selected from two different disciplines/course prefixes)
Choose from the University approved GEP Social Sciences course list or the following course(s) if completed as part of the Major requirements may fulfill part or all of this requirement:

E. Health & Exercise Studies (2 credit hours – at least one 100-level Health & Exercise Studies Course)
Choose from the University approved GEP Health & Exercise Studies course list.

F. Additional Breadth – (3 credit hours to be selected from the following checked University approved GEP course lists)  
  XX_ Humanities/Social Sciences/Visual and Performing Arts or

G. Interdisciplinary Perspectives (5-6 credit hours)
Choose from the University approved GEP Interdisciplinary Perspectives course list or the following course(s) if completed as part of the Major requirements may fulfill part or all of this requirement:
H. Introduction to Writing (4 credit hours satisfied by completing ENG 101 with a C- or better)

The following Co-Requisites must be satisfied to complete the General Education Program requirements

I. U.S. Diversity (USD)
Choose from the University approved GEP U.S. Diversity course list or choose a course identified on the approved GEP course lists as meeting the U.S. Diversity (USD) co-requisite. The following course(s) completed as part of the Major requirements may fulfill this requirement:

J. Global Knowledge (GK)
Choose from the University approved GEP Global Knowledge course list or choose a course identified on the approved GEP course lists as meeting the Global Knowledge (GK) co-requisite. The following course(s) completed as part of the Major requirements may fulfill this requirement:

K. Foreign Language proficiency – Proficiency at the FL_102 level is required for graduation.