# Ph.D. in Electrical Engineering

## Degree Requirements

Course selection is determined in consultation with the area faculty.

<table>
<thead>
<tr>
<th>Course work beyond the master's degree</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>700-level courses ¹</td>
<td>24</td>
</tr>
<tr>
<td>ECE 790 Doctrl Dissrtn &amp; Research ²</td>
<td>12</td>
</tr>
<tr>
<td>ECE 791 Graduate Seminar ³</td>
<td>0</td>
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</tbody>
</table>

### Total Credits: 72

1. Courses are normally associated with the area of specialization as listed in the master's degree description. For details, see the department “Handbook for Graduate Students.”

2. Students who complete 36 credits before their research is finished must register for a minimum of 3 credits of ECE 790 Doctrl Dissrtn & Research every semester thereafter until the dissertation has been accepted.

3. Six semesters are required.

### Dissertation and Defense

The dissertation should demonstrate original research that contributes to the knowledge in the field and should result in the submission of at least one paper for publication in a peer-reviewed journal. Students must provide the department a written proposal showing that facilities are available and that there is a faculty member willing to supervise dissertation work. An oral defense of the dissertation is required after submission of the final document to the dissertation committee for approval.

### Residency

Degree-seeking students must spend at least one academic year in full-time residence.

### Qualifying Examination

The examination contains material related to the student's fundamental knowledge, which includes the area of specialization. Contact the doctoral programs coordinator for more information.

### Pre-Doctoral Research

With department approval, well-qualified students may register for up to a maximum of 9 credits of ECE 792 Pre-Doctoral Research prior to passing the qualifying examination. A maximum of 6 credits of ECE 792 Pre-Doctoral Research may be applied toward the ECE 790 Doctrl Dissrtn & Research requirement.