ELECTRICAL ENGINEERING - MINOR

The minor in electrical engineering provides training in electrical engineering beyond the training usually received by science, mathematics and applied mathematics majors. It can also broaden the training of students majoring in other engineering fields to provide more depth in electrical engineering. The goal is to teach students the fundamentals of electrical engineering and introduce them to at least one of its many advanced application areas. Such skills are important to students who expect to participate in real world situations that increasingly involve electrical engineering applications.

Requirements

The electrical engineering minor requires a minimum of 18 credit hours.

A minor in electrical engineering can be earned in conjunction with any CU Boulder major, except for BS degrees in electrical engineering, electrical & computer engineering and integrated design engineering-electrical emphasis. The electrical engineering minor cannot be completed alongside any of the following minors: computer engineering and signals & systems engineering.

Prerequisites

Students must complete these courses with a C- or higher before declaring the minor:

- Calculus 1
- Calculus 2
- APPM 2360 Introduction to Differential Equations with Linear Algebra or MATH 2130 Introduction to Linear Algebra for Non-Mathematics Majors & MATH 3430 Ordinary Differential Equations

Grade Requirements

A minimum cumulative GPA of 2.000 is required in the courses used to satisfy the minor requirements. Each individual course that is counted toward this minor must be passed with a grade of D- or higher (note that a minimum grade of C- is required in all prerequisite courses).

Residency Requirements

At least 9 credit hours for the minor must be taken on the CU Boulder campus.

Required Courses and Credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>ECEN 2250</td>
<td>Introduction to Circuits and Electronics</td>
<td>3</td>
</tr>
<tr>
<td>ECEN 2260</td>
<td>Circuits as Systems</td>
<td>3</td>
</tr>
<tr>
<td>ECEN 2270</td>
<td>Electronics Design Lab</td>
<td>3</td>
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Emphasis Areas

Complete 9 credits, chosen from the following:

- ECEN 2350 Digital Logic
- ECEN 2360 Programming Digital Systems
- or CSCI 2400 Computer Systems
- ECEN 2370 Embedded Software Engineering
- ECEN 3170 Electromagnetic Energy Conversion 1

Total Credit Hours 18