Program Overview

The Electrical Engineering (EE) program at Alfaisal University is a four-year program that further comprises an industrial training experience as well as a capstone project in its final year. The program is carefully designed to offer a strong starting point in the general electrical engineering discipline, and prepares the students for both becoming an industry practitioner or pursuing graduate studies. A student in the program is involved in the four main sub-disciplines, namely communications, control, electronics and power. In addition, the student is exposed to contemporary and state-of-the-art knowledge in the areas of computer architecture and computer networks. True to the University’s student-centric mission, great emphasis is made throughout the program on students gaining independence and autonomy, as well as acquiring professional skills in communication and engineering practice.

Competitive Edge

Alfaisal’s Electrical Engineering program is uniquely designed to match the contemporary requirements of the practice. Both the program content and delivery undergo continuous review, with benchmarking to national, regional and international programs performed on an annual basis. The program’s mission is strengthened by internationally trained and practicing faculty members who also possess strong teaching and research profiles. The instructional and supporting staff are carefully selected to enable the highest levels of delivery. Engagement in industrial visits and field trips are also a staple of the program’s activities.

Professional Occupations

- Electrical Engineer
- Communications Engineer
- Electrical Design/Systems Engineer
- Electronics Engineer
- Control Engineer
- Power Engineer

Electrical Engineering at Alfaisal University - Contemporary. Distinguished.
### College Collaboration

![Collaboration Logos](image)

### Admissions Requirements

For admission criteria and how to apply, visit [http://admissions.alfaisal.edu](http://admissions.alfaisal.edu)

For more information about Alfaisal's Electrical Engineering, visit [http://coe.alfaisal.edu/departments/ee_home](http://coe.alfaisal.edu/departments/ee_home)

### Alumni Network

Our alumni network spans some of the most influential industrial and research venues, including:

- ABB
- AEC
- Alfanar
- American University of Beirut
- University of Michigan

### Alfaisal University

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### Course-Title CRHs

#### 1st Year
- **Fall**
  - Course-Title: Freshman English I
    - CRHs: 3
  - Course-Title: Calculus I
    - CRHs: 3
  - Course-Title: Mechanics and Waves for Engineers
    - CRHs: 3
  - Course-Title: Programming for Engineers
    - CRHs: 1
  - Course-Title: Programming for Engineers Lab
    - CRHs: 1
  - Course-Title: Introduction to Chemistry
    - CRHs: 3
  - Course-Title: Introduction to Chemistry Lab
    - CRHs: 1
  - **Total**: 18

- **Spring**
  - Course-Title: Engineering Ethics
    - CRHs: 3
  - Course-Title: Freshman English II
    - CRHs: 3
  - Course-Title: Calculus II
    - CRHs: 3
  - Course-Title: Electromagnetism and Optics for Engineers
    - CRHs: 1
  - Course-Title: Electromagnetism and Optics for Engineers Lab
    - CRHs: 1
  - Course-Title: Materials Science and Engineering
    - CRHs: 3
  - Course-Title: Materials Science and Engineering Lab
    - CRHs: 1
  - **Total**: 17

#### 2nd Year
- **Fall**
  - Course-Title: Foundations of Electrical Engineering
    - CRHs: 3
  - Course-Title: Foundations of Electrical Engineering Lab
    - CRHs: 1
  - Course-Title: Calculus III
    - CRHs: 3
  - Course-Title: Linear Algebra
    - CRHs: 2
  - Course-Title: Differential Equations
    - CRHs: 3
  - Course-Title: Islamic Studies I
    - CRHs: 2
  - **Total**: 15

  - Course-Title: Introduction to Electronics
    - CRHs: 3
  - Course-Title: Introduction to Electronics Lab
    - CRHs: 1
  - Course-Title: Electric Circuits
    - CRHs: 3
  - Course-Title: Electric Circuits Lab
    - CRHs: 1
  - Course-Title: Digital Logic Systems
    - CRHs: 3
  - Course-Title: Digital Logic Systems Lab
    - CRHs: 1
  - Course-Title: Numerical Methods
    - CRHs: 3
  - Course-Title: Probability and Statistics for Engineers
    - CRHs: 3
  - **Total**: 18

- **Spring**
  - Course-Title: Signals and Systems
    - CRHs: 3
  - Course-Title: Computer Networks
    - CRHs: 3
  - Course-Title: Computer Networks Lab
    - CRHs: 1
  - Course-Title: Computer Architecture
    - CRHs: 3
  - Course-Title: Computer Architecture Lab
    - CRHs: 1
  - Course-Title: Applied Electromagnetics
    - CRHs: 3
  - Course-Title: Islamic Language and Literature I
    - CRHs: 2
  - Course-Title: Islamic Studies II
    - CRHs: 2
  - **Total**: 18

- **Summer**
  - Course-Title: Electrical Engineering Summer Internship
    - CRHs: 0
  - **Total**: 0

#### 3rd Year
- **Fall**
  - Course-Title: Communications Theory
    - CRHs: 3
  - Course-Title: Communications Theory Lab
    - CRHs: 1
  - Course-Title: Microelectronics
    - CRHs: 3
  - Course-Title: Microelectronics Lab
    - CRHs: 1
  - Course-Title: Control and Feedback System Design
    - CRHs: 3
  - Course-Title: Control and Feedback System Design Lab
    - CRHs: 1
  - Course-Title: Electrical Energy Conversion
    - CRHs: 3
  - Course-Title: Electrical Energy Conversion Lab
    - CRHs: 1
  - Course-Title: Engineering Economy and Cost Analysis
    - CRHs: 3
  - **Total**: 19

- **Spring**
  - Course-Title: Technical Elective
    - CRHs: 3
  - Course-Title: Technical Elective
    - CRHs: 3
  - Course-Title: Technical Elective Lab
    - CRHs: 1
  - Course-Title: Technical Elective
    - CRHs: 3
  - Course-Title: Electrical Power Systems
    - CRHs: 3
  - Course-Title: Digital Communications
    - CRHs: 3
  - Course-Title: Digital Communications Lab
    - CRHs: 1
  - Course-Title: Technical Elective
    - CRHs: 3
  - Course-Title: Technical Elective Lab
    - CRHs: 1
  - Course-Title: Technical Elective
    - CRHs: 3
  - Course-Title: Technical Elective Lab
    - CRHs: 1
  - Course-Title: Electrical Engineering Capstone Project
    - CRHs: 4
  - Course-Title: Technical Elective
    - CRHs: 3
  - Course-Title: Technical Elective Lab
    - CRHs: 1
  - Course-Title: Technical Elective
    - CRHs: 3
  - Course-Title: Technical Elective Lab
    - CRHs: 1
  - Course-Title: Arabic Language and Literature II
    - CRHs: 2
  - **Total**: 17

- **Fall**
  - Course-Title: Technical Elective
    - CRHs: 3
  - Course-Title: Technical Elective Lab
    - CRHs: 1
  - Course-Title: Technical Elective
    - CRHs: 3
  - **Total**: 17