

# ELECTRICAL ENGINEERING, MINOR

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Electrical engineering (EE) connects the physical world with the information world. Electrical engineers can apply physics and chemistry in modern nanotechnology devices, can encode and manipulate information in circuits and networks, and can mathematically understand and reason with large amounts of data in real time. Students can pursue an EE minor by completing a six courses that includes the conception, design, analysis, and implementation of devices, circuits, and signal processing.

## SEAS Second Major or Minor Option

Students interested in a second major (College students only) or minor with SEAS are required to meet with the Undergraduate Curriculum Chair from the major/minor department you wish to declare to discuss requirements and obtain approval on the Second Major or Minor form. The approved form must be returned to the SEAS Research and Academic Services Office, 109 Towne Building.

**For more information:** <http://www.ease.upenn.edu/current-students/undergraduates/minors.php>

## Electrical Engineering Minor

Code	Title	Course Units
ESE 215	Electrical Circuits and Systems	1.5
ESE 218	Electronic, Photonic, and Electromechanical Devices	1.5
ESE 224	Signal and Information Processing	1.5
ESE 150	Digital Audio Basics <sup>1</sup>	1
Electives		
Select 2 ESE Electives <sup>2</sup>		2
Total Course Units		7.5

<sup>1</sup> An intermediate or Advanced ESE elective can be taken with department approval.

<sup>2</sup> Advance ESE course required. An approved list can be found on the most recent EE worksheet.

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The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2018 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

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