

# ELECTRONIC AND PHOTONIC MATERIALS, MINOR

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Requirements for a minor may be completed at any campus location offering the specified courses for the minor. Students may not change from a campus that offers their major to a campus that does not offer their major for the purpose of completing a minor.

## Program Description

Electronic and photonic materials have greatly changed modern life. Without them, computers, telecommunication systems, compact disc players, video cameras, and all the electronics with which we have become accustomed would not be possible. The study of electronic and photonic materials is a natural bridge between the fields of electrical engineering and material science. Students in electrical engineering will benefit from this minor because they will better understand the materials with which they will design electronic and photonic devices, such as transistors on a computer chip or semiconductor lasers in a compact disc player. Training in the field of electronic and photonic materials requires study of the processing and characterization of these materials to help engineers develop ways to lower cost and improve performance. This knowledge will help prepare students to enter the semiconductor industry or pursue graduate studies.

## What are Electronic and Photonic Materials?

Electronic and photonic materials are vital components of future scientific and technological advances. Studying the electronic, photonic, magnetic, and optical properties of materials is vital for building integrated electronic systems for wide ranging applications from computers to cell phones to electronic instruments for medical applications and environmental monitoring. The development of new electronic and photonic materials depends on understanding and controlling the electronic structure of materials and is a natural bridge between the fields of electrical engineering and materials science.

## You Might Like This Program If...

- You are interested in working in the electronics manufacturing industry.
- You want to know more about what materials are required to power a range of current electronic devices.