

# NANOTECHNOLOGY MINOR

The emerging field of nanotechnology, which involves studying and manipulating matter on an ultra-small scale (a nanometer is one-billionth of a meter), is expected to have far-reaching consequences in engineering applications as diverse as sustainable energy and next-generation microprocessors and flash memories.

## Requirements

A minor in nanotechnology requires the completion of at least 15 credits as follows:

| Course   | Title  | Credits   |
|--|--|-----------|
| <b>Group 1</b>   |  |           |
| ECE 4211/5211  | Semiconductor Devices and Nanostructures   | 3         |
| ECE 4243   | Nanoscience and Nanotechnology I   | 3         |
| ECE 4244   | Nanotechnology II  | 3         |
| <b>Group 2</b>   |  |           |
| Select two courses from the following list (at least six credits): |  | 6         |
| ECE 3223   | Optical Engineering  |           |
| ECE 3243   | Introduction to Nanotechnology   |           |
| ECE 4223   | Nanophotonics  |           |
| ECE 4225   | Fundamentals of Electron Device Design and Characterization  |           |
| ECE 4242   | Micro/Opto-electronic Devices and Circuits Fabrication Laboratory  |           |
| ECE 4095   | Special Topics in Electrical and Computer Engineering (or any engineering special topics course if related to nanoscience/technology)                |           |
| ECE 4079   | Independent Design Laboratory (or any engineering independent design laboratory course if related to nanoscience/technology)                         |           |
| ECE 4099   | Independent Study in Electrical and Computer Engineering (or any engineering independent studies course if related to nanoscience/technology)        |           |
| ECE 4901 & ECE 4902  | Electrical and Computer Engineering Design I and Electrical and Computer Engineering Design II (if the project is related to nanoscience/technology) |           |
| ECE 5223   | Nanophotonics  |           |
| ECE 5225   | Electron Device Design and Characterization  |           |
| ECE 5242   | Micro-Optoelectronic Devices and IC Fabrication  |           |
| <b>Total Credits</b>   |  | <b>15</b> |

The minor is offered by the College of Engineering. For information about the Nanotechnology minor, contact John Chandy at [john.chandy@uconn.edu](mailto:john.chandy@uconn.edu).