# **NEN - NANOENGINEERING**

### NEN 5000 Introduction to Nanotechnology and Nanomedicine Cr. 4

Basic understanding of nanomaterials synthesis, characterization, manufacturing methods, and their biomedical applications. Offered Winter.

**Prerequisites:** BE 1300 with a minimum grade of D- or BE 1310 with a minimum grade of D-

#### NEN 5100 Nanoengineering Lab Cr. 2

Hands-on experience in the synthesis and characterization of nanomaterials, as well as device fabrication and biomedical applications. Offered Winter.

Corequisite: NEN 5000 Fees: \$100

## NEN 5200 Scale-down Engineering - from Engineered Systems to Nanotechnology Cr. 4

Basic understanding of scale-down engineering in a wide range of systems including sensors, drug delivery, manufacturing, electromagnetic materials, and imaging. Offered Fall.

Prerequisites: (BE 1300 or BE 1310) and NEN 5000

### NEN 5300 Nanoengineering Research and Capstone Design Cr. 4

Formulation and solution of open-ended research problems related to nanomaterials and nanotechnology using current methods, tools and principles of nano-engineering. Offered Winter.

**Prerequisites:** NEN 5000 with a minimum grade of D-, NEN 5100 with a minimum grade of D-, and NEN 5200 with a minimum grade of D-

### NEN 5400 Nanoengineering Seminar Cr. 1

State-of-the-art research in nanotechnology by attending seminars given by nationally and internationally prominent. Offered Fall, Winter. **Prerequisites:** BE 1300 with a minimum grade of D- or BE 1310 with a minimum grade of D-