

# Science and Engineering (LSE)

## Living Learning Center Interdisciplinary Minor in Science and Engineering

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Because scientists and engineers increasingly work together in industry, government, and higher education, Stony Brook offers an interdisciplinary minor in Science and Engineering. The interdisciplinary minor in Science and Engineering is designed to give students an appreciation of the many fields in science and engineering and of the relationships of these fields to each other and to society. Through the minor, students receive broad exposure to several science and engineering disciplines represented at Stony Brook. This minor will also provide students with opportunities to study issues that scientists and engineers face today and to learn about future trends and research that will change the face of science and engineering in the 21st century. Technical writing and oral presentation skills are an integral part of the upper-level courses in the minor.

### Courses Offered in Interdisciplinary Science and Engineering

See the Course Descriptions listing in this *Bulletin* for complete information.

LSE 201 Opportunities in Science and Engineering

LSE 310-H Current Issues in Science and Engineering

LSE 320-H Future Trends in Science and Engineering

LSE 475 Undergraduate Teaching Practicum

### Requirements for the Minor in Science and Engineering (LSE)

Before declaring the Science and Engineering minor, each student should plan his or her program in consultation with the director of the minor. All courses for the minor must be passed with a letter grade of C or higher.

Completion of the minor requires 19 credits.

- All of the following minor courses:
  - LSE 201 Opportunities in Science and Engineering
  - LSE 310 Current issues in Science and Engineering
  - LSE 320 Future Trends in Science and Engineering
- Two introductory science courses from the list of department designators below. Courses must not be from the same department. (See notes 2 and 4.)
  - Astronomy (AST)
  - Atmospheric Sciences (ATM)
  - Biology (BIO)
  - Chemistry (CHE)
  - Geosciences (GEO)
  - Marine Sciences (MAR)
  - Physics (PHY)
- One introductory engineering or applied science course from the list of department designators below. (See notes 3 and 4.)
  - Biomedical Engineering (BME)
  - Chemical and Molecular Engineering (CME)
  - Computer Science and Information Systems (CSE/ISE)
  - Electrical and Computer Engineering (ESE)
  - Engineering Science (ESG)
  - Materials Science (ESM)
  - Mechanical Engineering (MEC)

- One course in technology and society from the following:

EST 302 Assessment of Computer-Based Technologies

EST 320 Communication Technology Systems

EST 330 Natural Disasters: Societal Impacts and Technological Solutions

EST 391 Technology Assessment

Notes:

- Some courses in science, engineering, and applied science require pre-calculus or one semester of calculus or a specific math placement level. Please review course prerequisites carefully or consult with the minor advisor before registration.
- Students majoring in AST, ATM, BIO, CHE, GEO, or PHY may not use courses in their own major department to fulfill requirement 2.
- Students majoring in BME, CME, CSE, ESE, ESG, ISE, or MEC may not use courses in their own major department to fulfill requirement 3.
- A list of acceptable courses for science and engineering is available from the minor advisor. Students who wish to register for courses in science and engineering not on the list should consult with the minor advisor for approval before registration.

### Declaration of the Minor

Students must declare the interdisciplinary Science and Engineering minor no later than the middle of their third year, at which time they consult with the director of the minor and plan their course of study for fulfillment of the requirements. Students must be in a declared major from a specific department by the time of completion of this minor.