

# **Program Mission, Objectives, Outcomes, and Enrollment Numbers**

(as of 1/11/2019)

## **Program Mission**

The mission of the Materials Science and Engineering program at the University of Connecticut consists of four components:

- Prepare men and women for leadership careers in Materials Science and Engineering,
- Perform research that advances the frontiers of engineering and science,
- Provide a State and national center of materials expertise,
- Promote recognition, open communications and personal development among faculty, staff and students.

## **Program Objectives**

Program Educational Objective 1:

Within three to five years after graduation, in their professional careers and/or graduate programs, our alumni/ae will have progressed in responsible professional positions and/or will have attained or will be successfully moving toward attaining post-graduate degrees.

Program Educational Objective 2:

Within three to five years after graduation, in their professional careers and/or graduate programs, our alumni/ae will have earned recognition for applying and continually expanding special, in-depth competencies in materials design, selection, characterization, and/or processing.

Program Educational Objective 3:

Within three to five years after graduation, in their professional careers and/or graduate programs, our alumni/ae will have earned recognition for applying and continually expanding professional skills of critical and cooperative thinking, communication, and leadership.

Program Educational Objective 4:

Within three to five years after graduation, in their professional careers and/or graduate programs, our alumni/ae will have become engaged with and contributing to professional societies and collaborating with the MSE Program Faculty in providing opportunities for current and potential MSE majors.

## **Program Educational Outcomes:**

Our graduating students have:

1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. An ability to communicate effectively with a range of audiences
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

## **Department of Materials Science and Engineering Enrollment Numbers**

**(as of Fall 2018)**

Freshman: 12

Sophomore: 14

Juniors: 36

Seniors: 62

TOTAL: 124

Number of students who graduated in May 2018: 40