

# **B.S.Ch.E.** in Chemical Engineering

#### Overview

**Degree Requirements** 

## Description

The B.S. in chemical engineering provides the student with a fundamental knowledge of chemical engineering science and prepares graduates for a variety of careers in industry and government, or for advanced study in engineering, business, or professional school.

# **Minimum Total Credit Hours: 128**

### **Goals/Mission Statement Program Educational Objectives**

Graduates from the Department of Chemical Engineering of the University of Mississippi will:

- 1. Meet or exceed the expectations of employers of chemical engineers;
- 2. Continue their professional development by pursuing advanced study if they so desire; and
- 3. Pursue leadership positions in their profession and/or communities.

#### **Student Outcomes**

In accordance with ABET accreditation requirements, BSChE students at the University of Mississippi should demonstrate the attainment of the following student outcomes:

- 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 judgements, 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 judgement to draw conclusions
- 7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies

# Other Academic Requirements

Students in the Department of Chemical Engineering are encouraged to take the Fundamentals of Engineering examination prior to awarding of the baccalaureate degree.

#### Specializations

- Emphasis Biotechnology
- **Emphasis Environmental**
- **Emphasis Manufacturing**
- Emphasis Materials
- Pre-Med Option
- **Standard Option**

