Emphasis - Environmental

B.S.Ch.E. in Chemical Engineering

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, within 3-5 years after graduation, 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. Continue their professional development by pursuing leadership opportunities and other positions of service 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

General Education Requirements

For detailed information see the the General Education Requirements of the School of Engineering.

Students must complete at least 15 hours of general education requirements: 3 hours of fine arts, 6 hours of humanities, and 6 hours of social science, with the exception that math content courses may not be used to satisfy any of these required 15 credits.

Course Requirements

Alternatives for 300-level technical electives: Chem 222, Manf 253, Manf 254, the combination of Bisc 160, 161, 162, and 163. In the case of the Bisc 160-163 series, the student must take all 8 credits to fulfill the requirement for one 3-credit technical elective. A maximum of 3 credits of Ch E 330 may be used to satisfy one of the technical elective requirements.

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.

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Course Requirements

Environmental	
GE 503 or Engr 540	3 Credit Hours
C E 471	3 Credit Hours
300 level or higher Environmental Electives	6 Credit Hours
300 level or higher Technical Electives	6 Credit Hours
Add'l hum/soc sci/gen ed	3 Credit Hours