

Emphasis - Manufacturing

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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 will be: 1. Globally competitive in the professional world; 2. Prepared for leadership and success in their chosen career or in continued education; 3. Equipped with flexible problem-solving skills to address complex professional and societal issues.

Student Outcomes

In accordance with ABET accreditation requirements, BSChE students at the University of Mississippi should demonstrate the attainment of the following student outcomes: (a) an ability to apply knowledge of mathematics, science, and engineering (b) an ability to design and conduct experiments, as well as to analyze and interpret data (c) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability (d) an ability to function on multidisciplinary teams (e) an ability to identify, formulate, and solve engineering problems (f) an understanding of professional and ethical responsibility (g) an ability to communicate effectively (h) the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context (i) a recognition of the need for, and an ability to engage in life-long learning (j) a knowledge of contemporary issues (k) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice

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

Manufacturing

Course	Hours
Advanced Science	3 Credit Hours
Bus 250	3 Credit Hours
Manf 150	1 Credit Hour
Manf 251	3 Credit Hours
Manf 252	1 Credit Hour
Manf 253	3 Credit Hours
Manf 254	3 credit Hours
Manf 350	3 Credit Hours
Manf 351	1 Credit Hour
Manf 450	3 Credit Hours
Manf 451	1 Credit Hour
Manf 452	2 Credit Hours

Other Academic Requirements

Acceptance into the Center for Manufacturing Excellence.

Degree Requirements

The academic regulations for this degree program, as entered in the University of Mississippi Catalog, are in effect for the current or selected academic year and semester. The University of Mississippi reserves the right to 1) change or withdraw courses; 2) change rules for registration, instruction, and graduation; and 3) change other regulations affecting the student body at any time.

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General Education

REQUIREMENT	HOURS	DESCRIPTION
First Year Writing I	3	Complete Hon 101 , Writ 100 or Writ 101 with a passing grade.
First Year Writing II	3	Complete Hon 102 , Liba 102 , or Writ 102 with a passing grade.



REQUIREMENT	HOURS	DESCRIPTION
Chem 105	3	Complete Chem 105 with a passing grade.
Chem 106	3	Complete Chem 106 with a passing grade.
Chem 115	1	Complete Chem 115 with a passing grade.
Chem 116	1	Complete Chem 116 with a passing grade.
Math 261	3	Complete Math 261 with a passing grade.
Math 262	3	Complete Math 262 with a passing grade.
Math 263	3	Complete Math 263 with a passing grade.
Math 264	3	Complete Math 264 with a passing grade.
Math 353	3	Complete Math 353 with a passing grade.
Phys 211	3	Complete Phys 211 with a passing grade.
Phys 212	3	Complete Phys 212 with a passing grade.
Phys 221	1	Complete Phys 221 with a passing grade.
Phys 222	1	Complete Phys 222 with a passing grade.
3 hrs fine arts	3	Student must successfully complete 3 hours in the fine arts. The course may be chosen from art history, art appreciation, and criticism of art, dance, music, and theatre arts. Courses emphasizing the enhancement of skills and performance are not acceptable.
Serial humanities	6	Complete 6 hrs (from the same department) of humanities choosing from course work in classics, literature, history, philosophy, religion, Southern Studies, African American Studies, and Gender Studies.
Serial social science	6	Complete 6 hours (from the same department) of social sciences choosing from the following; economics, anthropology, political science, psychology, and sociology. Psy 202 and Econ 230 are excluded from these options.

Major Requirements

REQUIREMENT	HOURS	DESCRIPTION
Ch E 101 or 103/104 or Engr 100	2	Complete Ch E 101 or Ch E 103/104 or Engr 100 with a passing grade.
Ch E 251	3	Complete Ch E 251 with a passing grade.
Ch E 307	2	Complete Ch E 307 with a passing grade.
Ch E 308	2	Complete Ch E 308 with a passing grade.
Ch E 317	3	Complete Ch E 317 with a passing grade.
Ch E 345	3	Complete Ch E 345 with a passing grade.
Ch E 411	1	Complete Ch E 411 with a passing grade.
Ch E 412	3	Complete Ch E 412 with a passing grade.
Ch E 417	3	Complete Ch E 417 with a passing grade.
Ch E 421	3	Complete Ch E 421 with a passing grade.
Ch E 423	3	Complete Ch E 423 with a passing grade.
Ch E 431	1	Complete Ch E 431 with a passing grade.
Ch E 432	1	Complete Ch E 432 with a passing grade.
Ch E 433	2	Complete Ch E 433 with a passing grade.
Ch E 451	4	Complete Ch E 451 with a passing grade.
Ch E 452	3	Complete Ch E 452 with a passing grade.
Enroll in a BSChE emphasis		Enroll in an emphasis in BSChE program.
School of Engineering GPA		Must be at least a 2.0



Major Requirements II

REQUIREMENT	HOURS	DESCRIPTION
Chem 225	1	Complete Chem 225 with a passing grade.
Chem 221	3	Complete Chem 221 with a passing grade.
Engr 310	3	Complete Engr 310 with a passing grade.
Engr 313 or Manf 251/252	3	Complete Engr 313 or Manf 251/252 with a passing grade.
Engr 321	3	Complete Engr 321 with a passing grade.
Engr 322	3	Complete Engr 322 with a passing grade.

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REQUIREMENT	HOURS	DESCRIPTION
3 hrs of Adv Science	3	Complete at least 3 hrs of Advanced Science with a passing grade chosen from: Engr 340 , 540 , CH E 543 , 545 , 547 , GEOL 314 , G E 415 , 450 , 503 , CHEM 314 , 331 , 332 , 334 , 373 , 401 , 471 , 473 , PHYS 315 , 317 , 318 , 319 , 321 , 401 , 402 BISC 301, 306 , 318 , 320 , 327 , 333 , 335 .
Bus 250	3	Complete Bus 250 with a passing grade.
Manf 150	1	Complete Manf 150 with a passing grade.
Manf 251	3	Complete Manf 251 with a passing grade.
Manf 252	1	Complete Manf 252 with a passing grade.
Manf 253	3	Complete Manf 253 with a passing grade.
Manf 254	3	Complete Manf 254 with a passing grade.
Manf 350	3	Complete Manf 350 with a passing grade.
Manf 351	1	Complete Manf 351 with a passing grade.
Manf 353	3	Complete Manf 353 with a passing grade.
Manf 450	3	Complete Manf 450 with a passing grade.
Manf 451	1	Complete Manf 451 with a passing grade.
Manf 452	2	Complete Manf 452 with a passing grade.
Manf 455	3	Complete Manf 455 with a passing grade.

