

B.S.Ch.E. in Chemical Engineering

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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.

B.S.Ch.E. in Chemical Engineering

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.
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.

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REQUIREMENT	HOURS	DESCRIPTION
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 449 & Ch E 450	4	Complete Ch E 449 & Ch E 450 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	3	Complete Engr 313 with a passing grade.
Engr 321	3	Complete Engr 321 with a passing grade.
Engr 322	3	Complete Engr 322 with a passing grade.

Standard Option

REQUIREMENT	HOURS	DESCRIPTION
3 hrs Engineering elective	3	Complete one of the following engineering technical electives: BME 305 , Engr 309 , Engr 330 , Engr 360 , Engr 573 , C E 471 , C E 472 , Ch E 520 , Ch E 528 , Ch E 535 , Ch E 540 , Ch E 550 , Manf 455 , or M E 534 .
12 hrs Technical Electives	12	Complete at least 12 credit hours of technical electives to include three 3-hour electives of 300 or higher course number from among engineering, science, or mathematics. (Alternatives for 300-level technical electives: Chem 222 , Manf 253 , Manf 254 , the combination of Bisc 160 (https://catalog.olemiss.edu/2021/spring/graduate/bisc-160), 161 , 162 , and Bisc 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.
3 hrs Adv science course	3	Complete at least one advanced science course. Course can be chosen from Bisc 301 , Bisc 306 , Bisc 318 , Bisc 320 , Bisc 327 , Bisc 333 , Bisc 335 , Ch E 543 , Ch E 545 , Ch E 547 , Chem 314 , Chem 331 , Chem 332 , Chem 334 , Chem 373 , Chem 401 , Chem 471 , Chem 473 , Engr 340 , Engr 540 , G E 415 , G E 450 , G E 503 , Geol 314 , Phys 315 , Phys 317 , Phys 318 , Phys 319 , Phys 321 , Phys 401 , Phys 402 ,
3 hrs add'l hum/soc sci/gen ed	3	Complete 3 additional hours of humanities, social science, or a general education course as defined by the School of Engineering with the exception that speech and math content courses such as Psy 202 and Econ 230 may not be used to satisfy any of these required 18 credits.

Emphasis - Materials

REQUIREMENT	HOURS	DESCRIPTION
Ch E 543 , Ch E 545 , or Ch E 547	3	Complete either Ch E 543 , Ch E 545 , or Ch E 547 with a passing grade.
9 hrs of Materials Emph Elect	9	Complete 3 courses chosen from the following: Ch E 528 , 540 , 543 , 545 , 547 , 550 , Engr 309 , 312 , 340 , or M E 534 with a passing grade.
3 hrs Engineering elective	3	Complete one of the following engineering technical electives: BME 305 , Engr 309 , Engr 330 , Engr 360 , Engr 573 , C E 471 , C E 472 , Ch E 520 , Ch E 528 , Ch E 535 , Ch E 540 , Ch E 550 , Manf 455 , or M E 534 .
3 hrs Technical Electives	3	Complete at least 3 credit hours of technical electives choosing from engineering, science, or mathematics. (Alternatives for 300-level technical electives: Chem 222 , Manf 253 , Manf 254 , the combination of Bisc 160 (https://catalog.olemiss.edu/2021/spring/graduate/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.)



REQUIREMENT	HOURS	DESCRIPTION
3 hrs add'l hum/soc sci/gen ed	3	Complete 3 additional hours of humanities, social science, or a general education course as defined by the School of Engineering with the exception that speech and math content courses such as Psy 202 and Econ 230 may not be used to satisfy any of these required 18 credits.

Emphasis - Biotechnology

REQUIREMENT	HOURS	DESCRIPTION
Ch E 520	3	Complete Ch E 520 with a passing grade.
Chem 334 , Chem 471 , or Bisc 333	3	Complete either Chem 334 , Chem 471 , or Bisc 333 with a passing grade.
Chem 222 or Bisc sequence	3	Complete either Chem 222 or Bisc 160 , 161 , 162 and 163 with a passing grade.
1 Biotech Emph Elective	3	Complete either Bisc 333 , 509 , BME 313 , 413 , Chem 473 , or Pharm 331 with a passing grade.
2 Technical Electives	6	Complete at least 6 credit hours of technical electives at 300 or higher course numbers from among engineering, science, or mathematics with a passing grade. (Alternatives for 300-level technical electives: Chem 222 , Manf 253 , Manf 254 , the combination of Bisc 160 (https://catalog.olemiss.edu/2021/spring/graduate/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.)
3 hrs add'l hum/soc sci/gen ed	3	Complete 3 additional hours of humanities, social science, or a general education course as defined by the School of Engineering with the exception that speech and math content courses such as Psy 202 and Econ 230 may not be used to satisfy any of these required 18 credits.

Pre-Med Option

REQUIREMENT	HOURS	DESCRIPTION
Bisc 160	3	Complete Bisc 160 with a passing grade.
Bisc 161	1	Complete Bisc 161 with a passing grade.
Bisc 162	3	Complete Bisc 162 with a passing grade.
Bisc 163	1	Complete Bisc 163 with a passing grade.
Chem 222	3	Complete Chem 222 with a passing grade.
Chem 226	1	Complete Chem 226 with a passing grade.
Chem 471	3	Complete Chem 471 with a passing grade.
3 hrs Engineering elective	3	Complete one of the following engineering technical electives: BME 305 , Engr 309 , Engr 330 , Engr 360 , Engr 573 , C E 471 , C E 472 , Ch E 520 , Ch E 528 , Ch E 535 , Ch E 540 , Ch E 550 , Manf 455 , or M E 534 .
2 Bisc 300+ electives	6	Complete two Bisc courses at the 300-level or higher with a passing grade.
Math 115 , 375 or Bisc 300	3	Complete 3 hrs chosen from Math 115 , 375 , or Bisc 300 .
3 hrs add'l hum/soc sci/gen ed	3	Complete 3 additional hours of humanities, social science, or a general education course as defined by the School of Engineering with the exception that speech and math content courses such as Psy 202 and Econ 230 may not be used to satisfy any of these required 18 credits.

Emphasis - Environmental

REQUIREMENT	HOURS	DESCRIPTION
G E 503 or Engr 540	3	Complete either G E 503 or Engr 540 with a passing grade.
C E 471	3	Complete C E 471 with a passing grade.
2 environmental emph electives	6	Complete two of the following courses: Ch E 545 , Ch E 530 , Engr 340 , Engr 573 , G E 450 , G E 510 , C E 472 , Phcl 347 , Chem 314 , Chem 469 , Chem 222 , Bisc 505 , Bisc 333 , or Bisc 511 with a passing grade.
2 technical electives	6	Complete at least 6 credit hours of technical electives at 300 or higher course numbers from among engineering, science, or mathematics with a passing grade. (Alternatives for 300-level technical electives: Chem 222 , Manf 253 , Manf 254 , the combination of Bisc 160 (https://catalog.olemiss.edu/2021/spring/graduate/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.)



REQUIREMENT	HOURS	DESCRIPTION
3 hrs add'l hum/soc sci/gen ed	3	Complete 3 additional hours of humanities, social science, or a general education course as defined by the School of Engineering with the exception that speech and math content courses such as Psy 202 and Econ 230 may not be used to satisfy any of these required 18 credits.

Emphasis - Manufacturing

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 152	1	Complete Manf 152 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 255	1	Complete Manf 255 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 355	1	Complete Manf 355 with a passing grade.
Manf 455	3	Complete Manf 455 with a passing grade.

