

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

[Overview](#)

[Degree Requirements](#)

## 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 <a href="#">Hon 101</a> , <a href="#">Writ 100</a> or <a href="#">Writ 101</a> with a passing grade.
First Year Writing II	3	Complete <a href="#">Hon 102</a> , <a href="#">Liba 102</a> , or <a href="#">Writ 102</a> with a passing grade.
3 hrs fine arts	3	Complete 3 hrs of fine arts with a passing grade chosen from art history, music, dance, and theatre arts. Studio and workshop courses cannot be used to satisfy this requirement. Courses that satisfy this requirement are any Art History (AH); <a href="#">Liba 130</a> , <a href="#">204</a> , <a href="#">314</a> ; <a href="#">Mus 101</a> , <a href="#">102</a> , <a href="#">103</a> , <a href="#">104</a> , <a href="#">105</a> ; <a href="#">Danc 200</a> ; <a href="#">Thea 201</a> , <a href="#">202</a> .
6 hrs Serial Humanities	6	Complete 6 hrs with a passing grade (from the same department) of humanities choosing from course work in classics, literature, history, philosophy, religion, Southern Studies, African American Studies, and Gender Studies.
6 hrs Serial Social Sciences	6	Complete 6 hours with a passing grade (from the same department) of social sciences choosing from the following; economics, anthropology, political science, psychology, and sociology. <a href="#">Psy 202</a> and <a href="#">Econ 230</a> are excluded from these options.

### General Education II

REQUIREMENT	HOURS	DESCRIPTION
<a href="#">Math 261</a>	3	Complete <a href="#">Math 261</a> with a passing grade.
<a href="#">Math 262</a>	3	Complete <a href="#">Math 262</a> with a passing grade.
<a href="#">Math 263</a>	3	Complete <a href="#">Math 263</a> with a passing grade.
<a href="#">Math 264</a>	3	Complete <a href="#">Math 264</a> with a passing grade.
<a href="#">Math 353</a>	3	Complete <a href="#">Math 353</a> with a passing grade.
<a href="#">Phys 211</a>	3	Complete <a href="#">Phys 211</a> with a passing grade.
<a href="#">Phys 212</a>	3	Complete <a href="#">Phys 212</a> with a passing grade.
<a href="#">Phys 221</a>	1	Complete <a href="#">Phys 221</a> with a passing grade.
<a href="#">Phys 222</a>	1	Complete <a href="#">Phys 222</a> with a passing grade.
<a href="#">Chem 105</a>	3	Complete <a href="#">Chem 105</a> with a passing grade.
<a href="#">Chem 106</a>	3	Complete <a href="#">Chem 106</a> with a passing grade.
<a href="#">Chem 115</a>	1	Complete <a href="#">Chem 115</a> with a passing grade.
<a href="#">Chem 116</a>	1	Complete <a href="#">Chem 116</a> with a passing grade.

### Major Requirements

REQUIREMENT	HOURS	DESCRIPTION
<a href="#">Ch E 101</a> or <a href="#">103/104</a> or <a href="#">Engr 100</a>	2	Complete <a href="#">Ch E 101</a> or <a href="#">Ch E 103/104</a> or <a href="#">Engr 100</a> with a passing grade.
<a href="#">Ch E 251</a>	3	Complete <a href="#">Ch E 251</a> with a passing grade.
<a href="#">Ch E 307</a>	2	Complete <a href="#">Ch E 307</a> with a passing grade.
<a href="#">Ch E 308</a>	2	Complete <a href="#">Ch E 308</a> with a passing grade.
<a href="#">Ch E 316</a>	3	Complete <a href="#">Ch E 316</a> with a passing grade.
<a href="#">Ch E 318</a>	3	Complete <a href="#">Ch E 318</a> with a passing grade.
<a href="#">Ch E 345</a>	3	Complete <a href="#">Ch E 345</a> with a passing grade.

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REQUIREMENT	HOURS	DESCRIPTION
<a href="#">Ch E 411</a>	1	Complete <a href="#">Ch E 411</a> with a passing grade.
<a href="#">Ch E 412</a>	3	Complete <a href="#">Ch E 412</a> with a passing grade.
<a href="#">Ch E 417</a>	3	Complete <a href="#">Ch E 417</a> with a passing grade.
<a href="#">Ch E 421</a>	3	Complete <a href="#">Ch E 421</a> with a passing grade.
<a href="#">Ch E 423</a>	3	Complete <a href="#">Ch E 423</a> with a passing grade.
<a href="#">Ch E 431</a>	1	Complete <a href="#">Ch E 431</a> with a passing grade.
<a href="#">Ch E 432</a>	1	Complete <a href="#">Ch E 432</a> with a passing grade.
<a href="#">Ch E 433</a>	2	Complete <a href="#">Ch E 433</a> with a passing grade.
<a href="#">Ch E 449</a> & <a href="#">Ch E 450</a>	4	Complete <a href="#">Ch E 449</a> & <a href="#">Ch E 450</a> with a passing grade.
<a href="#">Ch E 452</a>	3	Complete <a href="#">Ch E 452</a> 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
<a href="#">Chem 221</a>	3	Complete <a href="#">Chem 221</a> with a passing grade.
<a href="#">Chem 225</a>	1	Complete <a href="#">Chem 225</a> with a passing grade.
<a href="#">Engr 310</a>	3	Complete <a href="#">Engr 310</a> with a passing grade.
<a href="#">Engr 313</a>	3	Complete <a href="#">Engr 313</a> with a passing grade.
<a href="#">Engr 321</a>	3	Complete <a href="#">Engr 321</a> with a passing grade.

### Standard Option

REQUIREMENT	HOURS	DESCRIPTION
3 hrs Engineering elective	3	Complete one of the following engineering technical electives: <a href="#">BME 305</a> , <a href="#">Engr 309</a> , <a href="#">Engr 330</a> , <a href="#">Engr 360</a> , <a href="#">Engr 573</a> , <a href="#">C E 471</a> , <a href="#">C E 472</a> , <a href="#">Ch E 520</a> , <a href="#">Ch E 528</a> , <a href="#">Ch E 535</a> , <a href="#">Ch E 540</a> , <a href="#">Ch E 550</a> , <a href="#">Manf 455</a> , or <a href="#">M E 534</a> .
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: <a href="#">Chem 222</a> , <a href="#">Manf 253</a> , <a href="#">Manf 254</a> , the combination of <a href="#">Bisc 160</a> ( <a href="https://catalogtest.olemiss.edu/2024/fall/graduate/bisc-160">https://catalogtest.olemiss.edu/2024/fall/graduate/bisc-160</a> ), <a href="#">161</a> , <a href="#">162</a> , and <a href="#">Bisc 163</a> . In the case of the <a href="#">Bisc 160-163</a> series, the student must take all 8 credits to fulfill the requirement for one 3-credit technical elective. A maximum of 3 credits of <a href="#">Ch E 330</a> 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 <a href="#">Bisc 301</a> , <a href="#">Bisc 306</a> , <a href="#">Bisc 318</a> , <a href="#">Bisc 320</a> , <a href="#">Bisc 327</a> , <a href="#">Bisc 333</a> , <a href="#">Bisc 335</a> , <a href="#">Ch E 543</a> , <a href="#">Ch E 545</a> , <a href="#">Ch E 547</a> , <a href="#">Chem 314</a> , <a href="#">Chem 331</a> , <a href="#">Chem 332</a> , <a href="#">Chem 334</a> , <a href="#">Chem 373</a> , <a href="#">Chem 401</a> , <a href="#">Chem 471</a> , <a href="#">Chem 473</a> , <a href="#">Engr 340</a> , <a href="#">Engr 540</a> , <a href="#">G E 415</a> , <a href="#">G E 450</a> , <a href="#">G E 503</a> , <a href="#">Geol 314</a> , <a href="#">Phys 315</a> , <a href="#">Phys 317</a> , <a href="#">Phys 318</a> , <a href="#">Phys 319</a> , <a href="#">Phys 321</a> , <a href="#">Phys 401</a> , <a href="#">Phys 402</a> ,
3 hrs gen ed, lang, or SS/H/FA	3	Complete 3 additional hours with a passing grade of humanities, languages (modern, Greek, or Latin), social science, or a general education course as defined by the School of Engineering

### Emphasis - Materials

REQUIREMENT	HOURS	DESCRIPTION
<a href="#">Ch E 543</a> , <a href="#">Ch E 545</a> , or <a href="#">Ch E 547</a>	3	Complete either <a href="#">Ch E 543</a> , <a href="#">Ch E 545</a> , or <a href="#">Ch E 547</a> with a passing grade.
9 hrs of Materials Emph Elect	9	Complete 3 courses chosen from the following: <a href="#">Ch E 528</a> , <a href="#">540</a> , <a href="#">543</a> , <a href="#">545</a> , <a href="#">547</a> , <a href="#">550</a> , <a href="#">Engr 309</a> , <a href="#">312</a> , <a href="#">340</a> , or <a href="#">M E 534</a> with a passing grade.
3 hrs Engineering elective	3	Complete one of the following engineering technical electives: <a href="#">BME 305</a> , <a href="#">Engr 309</a> , <a href="#">Engr 330</a> , <a href="#">Engr 360</a> , <a href="#">Engr 573</a> , <a href="#">C E 471</a> , <a href="#">C E 472</a> , <a href="#">Ch E 520</a> , <a href="#">Ch E 528</a> , <a href="#">Ch E 535</a> , <a href="#">Ch E 540</a> , <a href="#">Ch E 550</a> , <a href="#">Manf 455</a> , or <a href="#">M E 534</a> .



REQUIREMENT	HOURS	DESCRIPTION
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: <a href="#">Chem 222</a> , <a href="#">Manf 253</a> , <a href="#">Manf 254</a> , the combination of <a href="#">Bisc 160</a> ( <a href="https://catalogtest.olemiss.edu/2024/fall/graduate/bisc-160">https://catalogtest.olemiss.edu/2024/fall/graduate/bisc-160</a> ), <a href="#">161</a> , <a href="#">162</a> , and <a href="#">163</a> . In the case of the <a href="#">Bisc 160-163</a> series, the student must take all 8 credits to fulfill the requirement for one 3-credit technical elective. A maximum of 3 credits of <a href="#">Ch E 330</a> may be used to satisfy one of the technical elective requirements.)
3 hrs gen ed, lang, or SS/H/FA	3	Complete 3 additional hours with a passing grade of humanities, languages (modern, Greek, or Latin), social science, or a general education course as defined by the School of Engineering

### Emphasis - Biotechnology

REQUIREMENT	HOURS	DESCRIPTION
<a href="#">Ch E 520</a>	3	Complete <a href="#">Ch E 520</a> with a passing grade.
<a href="#">Chem 334</a> , <a href="#">Chem 471</a> , or <a href="#">Bisc 333</a>	3	Complete either <a href="#">Chem 334</a> , <a href="#">Chem 471</a> , or <a href="#">Bisc 333</a> with a passing grade.
<a href="#">Chem 222</a> or Bisc sequence	3	Complete either <a href="#">Chem 222</a> or <a href="#">Bisc 160</a> , <a href="#">161</a> , <a href="#">162</a> and <a href="#">163</a> with a passing grade.
1 Biotech Emph Elective	3	Complete either <a href="#">Bisc 333</a> , <a href="#">509</a> , <a href="#">BME 313</a> , <a href="#">413</a> , <a href="#">Chem 473</a> , 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: <a href="#">Chem 222</a> , <a href="#">Manf 253</a> , <a href="#">Manf 254</a> , the combination of <a href="#">Bisc 160</a> ( <a href="https://catalogtest.olemiss.edu/2024/fall/graduate/bisc-160">https://catalogtest.olemiss.edu/2024/fall/graduate/bisc-160</a> ), <a href="#">161</a> , <a href="#">162</a> , and <a href="#">163</a> . In the case of the <a href="#">Bisc 160-163</a> series, the student must take all 8 credits to fulfill the requirement for one 3-credit technical elective. A maximum of 3 credits of <a href="#">Ch E 330</a> may be used to satisfy one of the technical elective requirements.)
3 hrs gen ed, lang, or SS/H/FA	3	Complete 3 additional hours with a passing grade of humanities, languages (modern, Greek, or Latin), social science, or a general education course as defined by the School of Engineering

### Pre-Med Option

REQUIREMENT	HOURS	DESCRIPTION
<a href="#">Bisc 160</a>	3	Complete <a href="#">Bisc 160</a> with a passing grade.
<a href="#">Bisc 161</a>	1	Complete <a href="#">Bisc 161</a> with a passing grade.
<a href="#">Bisc 162</a>	3	Complete <a href="#">Bisc 162</a> with a passing grade.
<a href="#">Bisc 163</a>	1	Complete <a href="#">Bisc 163</a> with a passing grade.
<a href="#">Chem 222</a>	3	Complete <a href="#">Chem 222</a> with a passing grade.
<a href="#">Chem 226</a>	1	Complete <a href="#">Chem 226</a> with a passing grade.
<a href="#">Chem 471</a>	3	Complete <a href="#">Chem 471</a> with a passing grade.
3 hrs Engineering elective	3	Complete one of the following engineering technical electives: <a href="#">BME 305</a> , <a href="#">Engr 309</a> , <a href="#">Engr 330</a> , <a href="#">Engr 360</a> , <a href="#">Engr 573</a> , <a href="#">C E 471</a> , <a href="#">C E 472</a> , <a href="#">Ch E 520</a> , <a href="#">Ch E 528</a> , <a href="#">Ch E 535</a> , <a href="#">Ch E 540</a> , <a href="#">Ch E 550</a> , <a href="#">Manf 455</a> , or <a href="#">M E 534</a> .
2 <a href="#">Bisc 300</a> + electives	6	Complete two Bisc courses at the 300-level or higher with a passing grade.
<a href="#">Math 115</a> , <a href="#">375</a> or <a href="#">Bisc 300</a>	3	Complete 3 hrs chosen from <a href="#">Math 115</a> , <a href="#">375</a> , or <a href="#">Bisc 300</a> .
<a href="#">Psy 201</a>	3	Complete <a href="#">Psy 201</a> with a passing grade.

### Emphasis - Environmental

REQUIREMENT	HOURS	DESCRIPTION
<a href="#">G E 503</a> or <a href="#">Engr 540</a>	3	Complete either <a href="#">G E 503</a> or <a href="#">Engr 540</a> with a passing grade.
<a href="#">C E 471</a>	3	Complete <a href="#">C E 471</a> with a passing grade.
2 environmental emph electives	6	Complete two of the following courses: <a href="#">Ch E 545</a> , <a href="#">Ch E 530</a> , <a href="#">Engr 340</a> , <a href="#">Engr 573</a> , <a href="#">G E 450</a> , <a href="#">G E 510</a> , <a href="#">C E 472</a> , <a href="#">Phcl 347</a> , <a href="#">Chem 314</a> , <a href="#">Chem 469</a> , <a href="#">Chem 222</a> , <a href="#">Bisc 505</a> , <a href="#">Bisc 333</a> , or <a href="#">Bisc 511</a> 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: <a href="#">Chem 222</a> , <a href="#">Manf 253</a> , <a href="#">Manf 254</a> , the combination of <a href="#">Bisc 160</a> ( <a href="https://catalogtest.olemiss.edu/2024/fall/graduate/bisc-160">https://catalogtest.olemiss.edu/2024/fall/graduate/bisc-160</a> ), <a href="#">161</a> , <a href="#">162</a> , and <a href="#">163</a> . In the case of the <a href="#">Bisc 160-163</a> series, the student must take all 8 credits to fulfill the requirement for one 3-credit technical elective. A maximum of 3 credits of <a href="#">Ch E 330</a> may be used to satisfy one of the technical elective requirements.)



REQUIREMENT	HOURS	DESCRIPTION
3 hrs gen ed, lang, or SS/H/FA	3	Complete 3 additional hours with a passing grade of humanities, languages (modern, Greek, or Latin), social science, or a general education course as defined by the School of Engineering

### 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: <a href="#">Engr 340</a> , <a href="#">540</a> , <a href="#">CH E 543</a> , <a href="#">545</a> , <a href="#">547</a> , <a href="#">GEOL 314</a> , <a href="#">G E 415</a> , <a href="#">450</a> , <a href="#">503</a> , <a href="#">CHEM 314</a> , <a href="#">331</a> , <a href="#">332</a> , <a href="#">334</a> , <a href="#">373</a> , <a href="#">401</a> , <a href="#">471</a> , <a href="#">473</a> , <a href="#">PHYS 315</a> , <a href="#">317</a> , <a href="#">318</a> , <a href="#">319</a> , <a href="#">321</a> , <a href="#">401</a> , <a href="#">402</a> <a href="#">BISC 301</a> , <a href="#">306</a> , <a href="#">318</a> , <a href="#">320</a> , <a href="#">327</a> , <a href="#">333</a> , <a href="#">335</a> .
<a href="#">Bus 250</a>	3	Complete <a href="#">Bus 250</a> with a passing grade.
<a href="#">Manf 150</a>	1	Complete <a href="#">Manf 150</a> with a passing grade.
<a href="#">Manf 152</a>	1	Complete <a href="#">Manf 152</a> with a passing grade.
<a href="#">Manf 251</a>	3	Complete <a href="#">Manf 251</a> with a passing grade.
<a href="#">Manf 252</a>	1	Complete <a href="#">Manf 252</a> with a passing grade.
<a href="#">Manf 253</a>	3	Complete <a href="#">Manf 253</a> with a passing grade.
<a href="#">Manf 255</a>	1	Complete <a href="#">Manf 255</a> with a passing grade.
<a href="#">Manf 351</a>	1	Complete <a href="#">Manf 351</a> with a passing grade.
<a href="#">Manf 353</a>	3	Complete <a href="#">Manf 353</a> with a passing grade.
<a href="#">Manf 355</a>	1	Complete <a href="#">Manf 355</a> with a passing grade.
<a href="#">Manf 455</a>	3	Complete <a href="#">Manf 455</a> with a passing grade.

