# University of Mississippi
## School of Engineering
## Department of Civil Engineering
### Requirements for the Bachelor of Science Degree in Civil Engineering (BSCE)
**Effective Summer 2023 (129 hrs) Updated 3-7-2023**

**Student NAME:**_____ **Student ID:** _____

| Freshma | | | | 31 hrs | | | | |
|---|---|---|---|---|---|---|---|---|
| Fall | | | Grade | | Spring | | | Grade |
| Writ 101 | First-Year Writing I | 3 | | | Writ 102 | First-Year Writing II | 3 | |
| Math 261 | Calculus I | 3 | | | Math 262 | Calculus II | 3 | |
| Chem | Chemistry I | 3 | | | Phys 211 | Physics I | 3 | |
| Chem | Chemistry Lab I | 1 | | | Phys 221 | Physics Lab I | 1 | |
| C E 101 | Introduction to CE I ⚓ | 1 | | | Csci 256/251 | Programming | 3 | |
| | SS Elective[1,2] | 3 | | | C E 102 | Introduction to CE II ⚓ | 1 | |
| | | | | | | Hum. Elective[1,2] | 3 | |
| Total | | 14 | | | Total | | 17 | |
| **Sophomo** | | | | **34 hrs** | | | | |
| Fall | | | Grade | | Spring | | | Grade |
| Math 263 | Calculus III | 3 | | | Math 264 | Calculus IV | 3 | |
| Phys 212 | Physics II | 3 | | | Math 353 | Differential Equations | 3 | |
| Phys 222 | Physics Lab II | 1 | | | Engr 312 | Mechanics of Materials | 3 | |
| Engr 309 | Statics | 3 | | | C E 371 | Environmental Engr. I ⚓ | 3 | |
| C E 207 | Surveying | 2 | | | Spch 10X | Speech Elective | 3 | |
| CE 208 | CE Graphics I | 1 | | | | Hum/FA/Mod Lang[1,2] | 3 | |
| | FA Elective[1,2] | 3 | | | | | | |
| Total | | 16 | | | Total | | 18 | |
| **Junior** | | | | **32 hrs** | | | | |
| Fall | | | Grade | | Spring | | | Grade |
| C E 205 | CE Lab I ⚓ | 1 | | | C E 305 | CE Lab II ⚓ | 1 | |
| C E 311 | Structural Analysis ⚓ | 3 | | | C E 315 | CE Materials ⚓ | 3 | |
| C E 481 | Transportation Engr. I ⚓ | 3 | | | C E 413 | Steel Design ⚓ | 3 | |
| Engr 323 | Fluid Mechanics | 3 | | | C E 417 | Construction Mgmt ⚓ | 3 | |
| C E 412 | Concrete Design ⚓ | 3 | | | C E 431 | Soil Mechanics I ⚓ | 3 | |
| Engr 310 | Engineering Analysis I | 3 | | | | Technical Elective A or B[1] | 3 | |
| Total | | 16 | | | Total | | 16 | |
| **Senior** | | | | **32 hrs** | | | | |
| Fall | | | Grade | | Spring | | | Grade |
| C E 401 | CE Fundamentals ⚓ | 1 | | | Econ 310 | Engineering Economy | 3 | |
| C E 405 | CE Lab III ⚓ | 1 | | | C E 456 | CE Design II ⚓ | 3 | |
| C E 433 | Foundations ⚓ | 3 | | | | Basic Science Elective[1,2] | 3 | |
| C E 455 | CE Design I ⚓ | 2 | | | | Technical Elective A[1] | 3 | |
| C E 472 | Water Resources Engr. ⚓ | 3 | | | | Technical Elective A or B[1] | 3 | |
| Engr 400 | Leadership & Profess. ⚓ | 1 | | | | | | |
| | Technical Elective A[1] | 3 | | | | | | |
| | Technical Elective A or B[1] | 3 | | | | | | |
| Total | | 17 | | | Total | | 15 | |

⚓ An anchor means a course is only taught in the designated Fall/Spring semester.

Symbols Registered
In progress
Completed

[1]See Page 2 for further information.

[2]Can switch time slot with SS/H/FA elective or other

| General Education Electives (SS/Hum/Fine Art Requirements) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SS | ECON 310 | 3 | | | Hum: Humanities Elective | 3 | | |
| SS | Social Sci. Elective | 3 | | | FA: Fine Arts Elective | 3 | | |
| Spch | Speech Elective | 3 | | | Hum/FA/Modern Language Elective | 3 | | |

**Social Sci:** anthropology (ANTH), economics (ECON), political science (POL), psychology (PSY), sociology (SOC), Liba 203, 313, or HON 101, 102 (if not being used to fulfill composition requirements).

**Humanities:** African American studies (AAS 201, 202); classical civilization (CLC); environmental studies (ENVS 101); gender studies (G ST 201, 202); history (HST); LIBA 202, 312, 305; literature (ENG 103, 220-226); philosophy (PHIL); religion (REL); Southern studies 100-level; or HON 101, 102 (if not being used to fulfill composition requirements). Beyond 3 hrs of the above, up to 3 hrs language (modern or Greek or Latin) with a grade of C or better.

**Fine Arts:** any Art History (AH); Liba 130, 204, 314; Mus 101, 102, 103, 104, 105; Danc 200; Thea 201, 202. Students who have completed 30 semester hours of undergraduate course work may fulfill the requirement with a 300- or 400-level art history course.

**(Courses emphasizing the enhancement of skills and performance are NOT acceptable)**

| **Speech Electives** (Advisor Note: Recommend Spch 105) | | | | | |
|---|---|---|---|---|---|
| Spch 105 | Business Prof Speech | 3 | Spch 102 | Fund of Public Speaking | 3 |

| **Basic Science Electives** | | | | | |
|---|---|---|---|---|---|
| Geol 101 | Physical Geology | 3 | Geol 105 | Env Geology-Resources | 3 |
| Geol 102 | Historical Geology | 3 | Bisc 102 | Inq Life: Human Biology | 3 |
| Geol 103 | Earth Dynamics | 5 | Bisc 104 | Inq Life: Environment | 3 |
| Geol 104 | Env Geology-Hazards | 3 | Bisc 160/161 | Biol Sci I + Lab | 4 |

**Technical Electives**

**Category A: (At least two courses from this list)**

| | | | | | |
|---|---|---|---|---|---|
| C E 414 | Adv. Concrete Design | 3 | C E 514 | Prestressed Concrete | 3 |
| C E 500 | Geospatial Analysis | 3 | C E 435 | Adv. Geotechnical Engineering | 3 |
| C E 572 | Stormwater Engr & Mgmt | 3 | Engr 573 | Environ Remediation | 3 |
| C E 574 | Wastewater Engineering | 3 | | | |
| C E 575 | Drinking Water Engineering | 3 | **Others upon approval by the Department Chair** | | |

**Category B:**

**Category B.I**: Any course from Category B.I list: (others may be added on a semester-by-semester basis)

| | | | | | |
|---|---|---|---|---|---|
| C E 511 | Structural Dynamics | 3 | Engr 321 | Thermodynamics | 3 |
| C E 521 | Adv. Mech of Materials | 3 | Engr 360 | Electric Circuits | 3 |
| C E 531 | Soil Mechanics II | 3 | Engr 590 | Finite Element Analysis I | 3 |
| C E 581 | Transportation Eng II | 3 | Engr 591 | Engineering Analysis I | 3 |
| C E 585 | Highway Pavement | 3 | Engr 593 | Approximate Methods | 3 |
| Engr 546 | Micro/Nanoscale Fabrication | 3 | G E 440 | Rock Mechanics | 3 |
| **Others upon approval by the Department Chair** | | | G E 450 | Hydrogeology | 3 |
| | | | M E 325 | Dynamics | 3 |

**Category B.II:** No more than one course from an approved minor, such as Business, ROTC, NROTC, Math, Environmental Studies.

**Category B.III**: Other courses may be used to fulfill the Category B requirements, with the approval of the advisor and the Department Chair, including any relevant independent study or special topics course **(Example: Hon 401, C OP 301, C OP 302, CE 497, Engr 596, Engr 597 & Engr 598).**

**Course Substitution and Justification (Subject to review and approval by Department Chair)**

| Course in program | Substitution | Justification | Advisor Signature | Date |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |

| | Course | Pre-Requisite | Co-Requisite |
|---|---|---|---|
| Freshman Year | Writ 101: First-Year Writing I | – | – |
| | Chem 105: General Chemistry I | Math ACT 24, or B in Chem 101, or B in Math 121 & 123, or B Math 125 | – |
| | Chem 115: General Chemistry Lab I | Math ACT 24, or B in Chem 101, or B in Math 121 &123, or B Math 125 | Chem 105 |
| | Math 261: Calculus I | Math ACT 24, or B in Math 121 & 123, or B in Math 125 | – |
| | C E 101: Introduction to C E I | – | – |
| | Writ 102: First-Year writing II | Writ 101 | – |
| | Phys 211: Physics I | – | Phys 221, Math 262 |
| | Phys 221: Physics Lab I | – | Phys 211 |
| | Math 262: Calculus II | Math 261 (grade C or above) | – |
| | Csci 256 (or 251) Programming | ACT 22, ALEKS 61, or Math 121 or higher | – |
| | C E 102: Introduction to C E II | – | – |
| Sophomore Year | Math 263: Calculus III | Math 262 (grade C or above) | – |
| | Phys 212: Physics II | Phys 211 | Phys 222, Math 262 |
| | Phys 222: Physics Lab II | Phys 221 | Phys 212 |
| | CE 208: CE Graphics I | – | CE 207 |
| | C E 207: Surveying | – | Engr 207 or CE 208 |
| | Engr 309: Statics | – | Math 263, Phys 211 |
| | Math 264: Calculus IV | Math 263 (grade C or above) | – |
| | Math 353: Differential Equations | Math 263 (grade C or above) | – |
| | Engr 312: Mechanics of Materials | Engr 309 | – |
| | C E 371: Environmental Engr I | Chem 105 & Chem 115; ~~Engr 322 or Engr 323~~ | – |
| Junior Year | C E 205: C E Lab I | – | Engr 312, Engr 323 |
| | C E 311: Structural Analysis | Engr 312, ~~CE 310~~ | – |
| | C E 481: Transportation Eng I | CE 207, CE 208 | – |
| | Engr 323: Fluid Mechanics | Phys 211 | Math 264, Engr 309 |
| | C E 412: Concrete Design | – | CE 311 |
| | Engr 310: Engineering Analysis I | Math 262 | – |
| | C E 305: CE Lab II | – | C E 431 |
| | C E 315: CE Materials | – | C E 431 |
| | C E 413: Steel Design | C E 311 | – |
| | C E 431: Soil Mechanics I | Engr 312 | – |
| | C E 417: Construction Mgmt | – | C E 315 |
| Senior Year | C E 401: CE Fundamentals | Senior standing in CE | CE 455 |
| | C E 405: CE Lab III | – | CE 472, CE 3/471, CE 315, CE 205 |
| | C E 433: Foundations | C E 431 | – |
| | C E 455: CE Design I | – | CE 481, CE 472, CE 433, CE 412 |
| | C E 472: Water Resources Eng | – | Engr 323 |
| | Engr 400: Leadership & Profess. | – | – |
| | Econ 310: Engineering Economy | -- | -- |
| | C E 456: CE Design II | C E 455 | – |