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

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

Freshman				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 105	Chemistry I	3			Phys 211	Physics I	3	
Chem 115	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	
Sophomor				**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			Chem 106	Chemistry II	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				CE Technical Elective[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 Sci Elective[1,2]	3	
C E 455	CE Design I ⚓	2				Environmental Elective 3[1]	3	
C E 472	Water Resources Engr. ⚓	3				Environmental Elective 4[1]	3	
Engr 400	Leadership & Profess. ⚓	1						
	Environmental Elective 1[1]	3						
	Environmental Elective 2[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 a SS/H/FA elective

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

Environmental Engineering Emphasis Requirements

Chem 106 + Basic Env Sci Elective + 4 Environmental Technical Electives below.

Basic Science Elective for Environmental Emphasis

Bisc 104	Inq Life: Environment	3	Geol 104	Env Geology-Hazards	3
Bisc 160	Biological Sciences I	3	Geol 105	Env Geology-Resources	3

Environmental Technical Electives

C E 572	Stormwater Engr & Mgmt	3	G E 503	Environmental Geochemistry	3
C E 574	Wastewater Engineering	3	**Only one of the following three courses:**		
C E 575	Drinking Water Engineering	3	C E 500	Geospatial Analysis	3
Engr 573	Environmental Remediation	3	G E 470	Intro to Geographic Info Systems	3
Ch E 545	Colloid and Surface Science	3	G E 510	Remote Sensing	3
Engr 571	Serv Learn in Water Treat	3			
G E 450	Hydrogeology	3	**Other courses as approved by the advisor <u>and</u> the dept chair**		
Engr 321	Thermodynamics	3			

CE Technical Electives

C E 414	Adv. Concrete Design	3	C E 514	Prestressed Concrete	3
C E 511	Structural Dynamics	3	C E 435	Adv. Geotechnical Engineering	3
C E 521	Adv. Mech of Materials	3			
C E 531	Soil Mechanics II	3	Engr 360	Electric Circuits	3
C E 581	Transportation Eng II	3	Engr 590	Finite Element Analysis I	3
C E 585	Highway Pavement	3	Engr 591	Engineering Analysis I	3
Engr 546	Micro/Nanoscale Fabrication	3	Engr 593	Approximate Methods	3
C E 581	Transportation Eng II	3	G E 440	Rock Mechanics	3
C E 585	Highway Pavement	3	M E 325	Dynamics	3

No more than one course from an approved minor, such as Business, ROTC, NROTC, Math, Environmental Studies.

Other courses may be used to fulfill the CE Tech Electives, 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).**

Others upon approval by the Department Chair

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

<u>Course in program</u>	<u>Substitution</u>	<u>Justification</u>	<u>Advisor Signature</u>	<u>Date</u>

CE Pre-Requisites & Co-requisite Sequences Work-Sheet

	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 and above	–
	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
	Chem 106: Chemistry II	Chem 105	–
	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	–