

North Carolina State University
ENVIRONMENTAL ENGINEERING CURRICULUM

Degree Earned: B.S. in Environmental Engineering (14ENEBS)
 Department of Civil, Construction, and Environmental Engineering
 For students entering CCEE after July 2019 (F'19)

FRESHMAN YEAR			
FALL SEMESTER	CREDITS	SPRING SEMESTER	CREDITS
CH 101 Chemistry - A Molecular Science	3	CH 201 Chemistry – A Quantitative Science	3
CH 102 General Chemistry Laboratory	1	EC 205 Fundamentals of Economics (GEP Req)	3
E 101 Introduction to Engr & Prob. Solving	1	MA 241 Calculus II	4
E 115 Intro to Computing Environments	1	PY 205 Physics for Engineers & Scientists I	3
ENG 101 Academic Writing and Research	4	PY 206 Physics for Engineers & Scientists I Lab	1
MA 141 Calculus I	4	E 102 Engineering in the 21 st Century (GEP Req)	2
HESF 1XX Fitness & Wellness Course	1		
<i>Total:</i>	15	<i>Total:</i>	16
SOPHOMORE YEAR			
FALL SEMESTER	CREDITS	SPRING SEMESTER	CREDITS
CE 214 Engineering Mechanics – Statics	3 (CP)	CE 282 Hydraulics	3 (CP)
CE 250 Intro. to Sustainable Infrastructure	3 (CP)	CE 373 Fundamentals of Environmental Eng.	3 (CP)
CHE 205 Chemical Proc. Principles	4	BIO 183 Intro. Biology: Cellular and Molecular Bio	4
MA 242 Calculus III	4	Earth Systems Chemistry Elective ¹	3
CSC 111 Intro to Computing: PYTHON	3	MA 341 Applied Differential Equations	3
		HES XXX Phys Ed/Healthy Living Course	1
<i>Total:</i>	17	<i>Total:</i>	17
JUNIOR YEAR			
FALL SEMESTER	CREDITS	SPRING SEMESTER	CREDITS
CE 378 Environmental Chem. & Microbiology	4	CE 381 Hydraulics Sys Meas. Lab	1
TDE 220 Civil Engineering Graphics OR GIS 280 Intro to Geo. Info Systems	3	CE 383 Hydrology & Urban Water Sys	3
PY 208 Physics for Engineers & Scientists II	3	CE 339 Civil Engineering Systems	3
PY 209 Physics for Engrs & Scientists II Lab	1	MAE 201 Engr Thermodynamics I	3
ST 370 Probability & Statistics for Engr	3	PS 320 US Environ Law and Politics OR PS 336 Global Envir Pol (GEP Req)	3
COM 110 Public Speaking (GEP Req)	3	GEP Requirement (<i>GEP Humanities</i>)	3
<i>Total:</i>	17	<i>Total:</i>	16
SENIOR YEAR			
FALL SEMESTER	CREDITS	SPRING SEMESTER	CREDITS
CE 488 Water Resource Engineering	3	CE 477 Solid Waste Engineering	3
CE 484 Water Supply & Waste Water Sys.	3	CE 481 Environmental Engineering Project	3
CE 476 Air Pollution Control OR CE 479 Air Quality	3	ENE Elective II ²	3
ENE Elective I ²	3	ENE Elective III ²	3
GEP Requirement (<i>GEP Humanities</i>)	3	GEP Requirement (<i>GEP Interdisciplinary Persp.</i>)	3
<i>Total:</i>	15	<i>Total:</i>	15
Minimum Credit Hours Required for Graduation*: 128			

Major/Program Footnotes:¹ Select from MEA 323 or SSC 442² ENE Elective – three electives in senior year

- I. Select one: CE 435, CE 476, CE 478, CE 487, CE 479, or advised elective from CE course list.
- II. Select another one course from (I.), or CE 499.
- III. Select another one course from (I.), or one Environmental General Elective from approved list

* Foreign Language Proficiency at the FL_102 level is required for graduation.

(CP) – Critical Path major specific course predictive of student success.

ENVIRONMENTAL ENGINEERING CURRICULUM

COURSE LISTING WITH PRE- AND CO-REQUISITES IN PARENTHESES

For students entering CCEE after July 2019 (F'19)

Fall Semester

Spring Semester

FRESHMAN YEAR

CH 101 ¹	CH 201 (C- or better in CH 101)
CH 102 ¹ (CoReq CH 101)	EC 205 (GEP Soc Sci Req.) [*]
E 101 ¹	MA 241 (C or better in MA 141) ¹
E 115 ²	PY 205 (C or better in MA 141) ¹
ENG 101 ¹	PY 206 (C or better in MA 141; Co: PY 205) ¹
MA 141 ¹	E 102 [*] (GEP Int. Persp. Req.) [*]
HESF 1XX [*] Fitness & Wellness Course	

<i>Matriculation Requirements (CODA):</i> (admission is competitive)	1. C or better in: CH 101, CH 102, E 101, ENG 101, MA 141, MA 241, PY 205 & PY 206 2. Completion of E 115 (S)
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SOPHOMORE YEAR

CE 214 (C or better in PY 205 & MA 241; CoReq MA 242)	CE 282 (C- or better in CE 214; CoReq MA 341 or ST 370)
CE 250 (CoReq CSC 111 & CE 214)	CE 373 (CoReq CE 250 and (CHE 205 or CE 282))
CHE 205 (C or better in MA 241 & PY 205, and CH 201 or CH 221)	BIO 183 (CH 101 or BIO 181)
MA 242 (C or better in MA 241)	Earth Systems Chemistry Elective ³
CSC 111 (CoReq E 115 & MA 141)	MA 341 (MA 242)
	HES XXX Phys Ed/Healthy Living Course

JUNIOR YEAR

CE 378 ((MEA 323 or SSC 442), C- or better in CE 250 & CE 373; CoReq ST 370)	CE 381 (CoReq CE 282)
TDE 220 or GIS 280	CE 383 (C- or better in CE 282; CoReq ST 370)
PY 208 (C- or better in PY 205 and in MA 241)	CE 339 (CSC 111 & (MA 341 or MA 305), Junior standing)
PY 209 (CoReq PY 208)	MAE 201 (MA 242 & (PY 208 or PY 202))
ST 370 (MA 141)	PS 320 or PS 336 (GEP Soc Sci Req.) [*]
COM 110 (GEP Add. Breadth Req.) [*]	GEP Requirement [*] (Humanities)

SENIOR YEAR

CE 488 (CE 339 & CE 383)	CE 477 (CE 250, CE 282 & CE 373)
CE 484 (CE 282 & CE 373)	CE 481 (CE 378, CE 383; CoReq CE 484, +2 of 476, 477, 479, 488)
CE 476 (MAE 201 & CE373; CoReq ST 370)	Environmental Engineering elective II ⁴
or CE 479 (CE 282 & CE 373; CoReq ST 370)	Environmental Engineering Elective III ⁴
ENE Elective I ⁴	GEP Requirement [*] (Interdisciplinary Perspectives)
GEP Requirement [*] (Humanities)	

Major/Program Footnotes:

¹Courses required for CODA: CH101, CH102; E101, ENG101; MA141, MA241; PY205, PY206 must be completed with C or higher.

²E115 requires satisfactory completion (S).

³Select from MEA323 or SSC442

⁴ENE Elective – three electives in senior year

- I. Select one: CE435, CE476, CE478, CE487, CE479, or advised elective from CE Course List.
- II. Select another one course from (I.), or CE499.
- III. Select another one from (I.), or one Environmental General Elective from approved list

^{*}GEP REQUIREMENTS to be selected from the approved list in consultation with advisor.

Foreign Language Proficiency at the FL_102 level is required for graduation.