

# Environmental Engineering (BS) (14ENEBS)

Critical Path Courses- Identify using the code (CP) which courses are considered critical path courses which represent specific major requirements that are predictive of student success in a given program/plan. Place the (CP) next to the credit hours for the course.

## Freshman Year

Fall Semester	Credit	Spring Semester	Credit
CH 101 Chemistry, A Molecular Science <sup>1</sup>	3	CH 201 Chemistry - A Quantitative Science	3
CH 102 General Chemistry Lab <sup>1</sup>	1	EC 205 Fund of Economics (H &SS Elec) <sup>1</sup>	3
E 101 Introduction to Engr & Prob Solv <sup>1,2</sup>	1	MA 241 Analytic Geometry & Calculus II <sup>1</sup>	4
E 115 Intro to Computing Environ <sup>1,2</sup>	1	PY 205 Physics for Engineers & Scientists I <sup>1</sup>	3
ENG 101 Composition & Rhetoric <sup>1,2</sup>	4	PY 206 Physics for Engineers & Scientists I Lab <sup>1</sup>	1
MA 141 Calculus I <sup>1,2</sup>	4	E 102 Engineering in the 21st Century (GEP-IP)	2
HES_1** Fitness and Wellness Course*	1		
	15		16

## Sophomore Year

Fall Semester	Credit	Spring Semester	Credit
CE 214 Engr Mechanics - Statics	3(CP)	BIO 183 Introduction: Biology II	4
CE 250 Introduction to Sustainable Infrastructure	3(CP)	CE 373 Fundamentals of Envr Engr	3(CP)
CHE 205 Chem Proc Principles	4	Earth System Chemistry Elective <sup>3</sup>	3
MA 242 Calculus III	4	MA 341 Appl. Differential Equations I	3
CSC 111 Intro to Computing: PYTHON	3	CE 282 Hydraulics	3(CP)
		HES XXX Phys Ed/Healthy Living Course	1
	17		17

## Junior Year

Fall Semester	Credit	Spring Semester	Credit
CE 378 Environmental Chemistry & Microbiology	4	CE 381 Hydraulics Sys Meas Lab	1
TDE 220 Civil Engineering Graphics OR GIS 280 Intro to Geographic Info Systems	1	CE 383 Hydrology & Urban Water Sys	3
PY 208 Physics for Engineers & Scientists II	3	CE 339 Civil Engineering Systems	3
ST 370 Probability & Statistics for Engr	3	MAE 201 Engr Thermodynamics I	3
COM 110 Public Speaking (GEP Req)*	3	PS 320 US Environ Law and Politics <b>OR</b> PS 336 Global Envir Pol (GEP Req*)	3
PY 209 Physics for Engineers & Scientists II Lab	1	GEP Requirement*	3
	17		16

## Senior Year

Fall Semester	Credit	Spring Semester	Credit
CE 488 Water Resources Engineering	3	CE 477 Solid Waste Engineering	3
CE 476 Air Pollution Control <b>OR</b> CE 479 Air Quality	3	CE 481 Environmental Engineering Project	3
ENE Elective I <sup>4</sup>		ENE Elective II <sup>4</sup>	3
CE 484 Water Supply & Waste Water Sys	3	ENE Elective III <sup>4</sup>	3
GEP Requirement*	3	*** ** GEP Requirement*	3
	15		15

Minimum Credit Hours Required for Graduation\*:

128

### Major/Program requirements and footnotes

<sup>1</sup>Courses required for Change of Degree Audit (CODA). CH 101, 102; MA 141,241; PY 205,206 must be completed with C or higher.

<sup>2</sup> Minimum grade of C-, E 115 requires satisfactory completion (S).

<sup>3</sup> Select from MEA 323 or SSC 442

<sup>4</sup>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: ARC 521, ARC 522, or ARC 590

\*Foreign Language Proficiency at the FL\_102 level is required for graduation.

**\*General Education Program (GEP) requirements and GEP Footnotes**

To complete the requirements for graduation and the General Education Program, the following category credit hours and co-requisites must be satisfied. University approved GEP course lists for each of the following categories can be found at <http://oucc.dasa.ncsu.edu/general-education-program/>.

**A. Mathematical Sciences** (6 credit hours – one course with MA or ST prefix)

*Fulfill as part of the Major requirements.*

**B. Natural Sciences** (7 credit hours – include one laboratory course or course with a lab)

*Fulfilled as part of Major requirements.*

**C. Humanities** (6 credit hours selected from two different disciplines/course prefixes)

*Choose from the University approved GEP Humanities course list.*

**D. Social Sciences** (6 credit hours selected from two different disciplines/course prefixes)

*EC 205 (or EC 201 or ARE 201) taken as part of the Major requirements satisfies 3 credit hours needed to fulfill the GEP Social Sciences requirement.*

*PS 320 or PS 336 taken as part of the Major requirements satisfies 3 credit hours needed to fulfill the GEP Social Sciences requirement.*

**E. Health & Exercise Studies** (2 credit hours – at least one 100-level Fitness and Wellness Course)

*Choose from the University approved GEP Health & Exercise Studies course list.*

**F. Additional Breadth** - (3 credit hours to be selected from the following checked University approved GEP course lists)

X Humanities/Social Sciences/Visual and Performing Arts or    Mathematical Sciences/Natural Sciences/Engineering

*COM 110 taken as part of the Major requirements satisfies 3 credit hours needed to fulfill the GEP Additional Breadth - Visual and Performing Arts requirement.*

**G. Interdisciplinary Perspectives** (5-6 credit hours)

*E 102 taken as part of the Major requirements satisfies 2 credit hours to fulfill the GEP Interdisciplinary perspectives requirement. Choose 3 credit hours from the University approved GEP Interdisciplinary perspectives course.*

**H. Introduction to Writing** (4 credit hours satisfied by completing ENG 101 with a C- or better)

The following **Co-Requisites** must be satisfied to complete the General Education Program requirements

**I. U.S. Diversity (USD)**

*Choose from the University approved GEP U.S. Diversity course list.*

**J. Global Knowledge (GK)**

*Choose from the University approved GEP Global Knowledge course list.*

**K. Foreign Language proficiency** - Proficiency at the FL\_102 level is required for graduation.