

# Biological and Agricultural Engineering Technology (BS): Environmental Systems Management (11AGEVTBS-11AGEVTESM)

## Freshman Year

Fall Semester	Credit	Spring Semester	Credit
ALS 103 Freshman Trans & Diversity in ALS or ALS 303 Transfer Trans & Diversity in ALS	1	CH 101 Chem - A Molecular Science <sup>B</sup>	3
BIO 181 Intro Biol: Ecol, Evol, & Biodiversity <sup>B</sup>	4	CH 102 General Chemistry I Lab <sup>B</sup>	1
GEP Social Science Elective <sup>D</sup>	3	MA 131 Calc. for Life & Mgt. Sc. A <sup>A</sup>	3
ENG 101 Academic Writing & Research <sup>H</sup>	4	GEP Humanities Requirement <sup>C</sup>	3
MA 114 Intro. Finite Math <sup>A</sup>	3	GC 120 Found. of Graphics	3
		HES_*** Health & Exercise Studies Course <sup>E</sup>	1
		BAE 100 Intro to Bio Eng	1
	15		15

## Sophomore Year

Fall Semester	Credit	Spring Semester	Credit
BAET 201 Shop Processes & Mgmt	3	GEP Interdisc. Persp. Elective <sup>G</sup>	3
PY 211 College Physics I <sup>B</sup>	4	Physical Science Elective <sup>1</sup>	4
BAET 200 Computer Applications in BAET	2	Group A, B, or C Elective <sup>2</sup>	3
SSC 200 Soil Science <sup>B</sup>	3	ARE 201 Intro. Agri. Res. Econ. <sup>D</sup>	3
SSC 201 Soil Science Lab	1	HES_*** Health & Exercise Studies Course <sup>E</sup>	1
Free Elective	2		
	15		14

## Junior Year

Fall Semester	Credit	Spring Semester	Credit
ST 350 Econ. & Bus. Stat <sup>A</sup>	3	BAET 332 Mgmt of Animal Environments	4
BAE 325 Introductory Geomatics	3	BAET 333 Processing BAET Products	3
BAET 343 Electrical Systems	4	BAET 323 Water Management	3
Agri. and Resou. Econ. Elective <sup>3</sup>	3	Agri. and Resou. Econ. Elective <sup>3</sup>	3
Communications Elective <sup>4</sup>	3	GIS 280 Introduction to GIS	3
	16		16

## Senior Year

Fall Semester	Credit	Spring Semester	Credit
BAET 432 Agric. & Envr. Safety & Health	3	BAET 450 BAET Capstone	3
BAET 443 Environ. Restor. Implementation	3	Group A, B, and C Elective <sup>2</sup>	3
AEE 323 Leadership Dev. Agric.	3	Group A, B, and C Elective <sup>2</sup>	3
GEP Humanities Req <sup>t</sup> . <sup>C</sup>	3	GEP Interdiscp. Persp. Elective <sup>G</sup>	2
Communication Elective <sup>4</sup>	3	GEP Additional Breadth Req <sup>t</sup> . <sup>F</sup>	3
	15		14

Minimum Credit Hours Required for Graduation:<sup>\*I,J,K</sup>

120

### Major/Program requirements and footnotes

**1** Choose between (CH 201 and 202) or PY 212.

**2** Group A, B and C electives can emphasize agricultural, environmental or business areas and effectively used for a minor.

**3** Choose from ARE 303, ARE 304, ARE 306, ARE 309, ARE 311, ARE 312, ARE 321 and ARE(EC 336).

**4** Choose from ENG 331, ENG 332 and ENG 333.

**5** Major GPA must be 2.0 or higher for graduation.

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

To complete the requirements for graduation and the General Education Program, the following credit hours and co-requisites must be satisfied. University approved GEP course lists for each category 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)

*Choose from the University approved GEP Mathematical Sciences course list or the following course(s) if completed as part of the Major requirements may fulfill part or all of this requirement: MA 114, MA 131*

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

*Choose from the University approved GEP Natural Sciences course list or the following course(s) if completed as part of the Major requirements may fulfill part or all of this requirement: CH 101, CH 102, BIO 181, PY 211, SSC 200*

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

*Choose from the University approved GEP Humanities course list or the following course(s) if completed as part of the Major requirements may fulfill part or all of this requirement: none*

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

*Choose from the University approved GEP Social Sciences course list or the following course(s) if completed as part of the Major requirements may fulfill part or all of this requirement: ARE 201*

**E. Health & Exercise Studies** (2 credit hours – at least one 100-level Health & Exercise 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)  Humanities/Social Sciences/Visual and Performing Arts or  Mathematical Sciences/Natural Sciences/Engineering

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

*Choose from the University approved GEP Interdisciplinary Perspectives course list or the following course(s) if completed as part of the Major requirements may fulfill part or all of this requirement:*

**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 or choose a course identified on the approved GEP course lists as meeting the U.S. Diversity (USD) co-requisite. The following course(s) completed as part of the Major requirements may fulfill this requirement: none*

**J. Global Knowledge (GK)**

*Choose from the University approved GEP Global Knowledge course list or choose a course identified on the approved GEP course lists as meeting the Global Knowledge (GK) co-requisite. The following course(s) completed as part of the Major requirements may fulfill this requirement: none*

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