

A. ENVIRONMENTAL SCIENCE TECHNOLOGY

FORM FOR REQUEST FOR CHANGE IN UNDERGRADUATE PROGRAM

Program: Environmental Science Technology

Formal Option: (if applicable) _____ or Specialty Field: (if applicable) _____

Department: BSN College: _____

Degree title: AAS Bulletin pp.: UK (p 227) LCC (p 53-54)

CIP Code: 15.0599.04 UK ID No.: _____ HEGIS CODE: _____

Accrediting Agency (if applicable): _____

I. PROPOSED CHANGE(S) IN PROGRAM REQUIREMENTS

1. Particular University Studies Requirements or Recommendations for this program

	<u>Current</u>	<u>Proposed</u>
English Writing:	Not Applicable	
Communication:		
Mathematics:		
Area I (Natural Science)		
Area II (Social Science)		
Area III (Humanities)		
Area IV (Cross-disciplinary component)		
Area V (Non-western cultural component)		

2. College Depth and Breadth of Study Requirements (if applicable) (including particular courses required or recommended for this program) NOTE: To the extent that proposed changes in 2. through 6. involve additional courses offered in another program, please submit correspondence with the program(s) pertaining to the availability of such courses to your students.

<u>Current</u>	<u>Proposed</u>
Not Applicable	

3. Premajor or Preprofessional Course Requirements (if applicable)

<u>Current</u>	<u>Proposed</u>
None	EST 150 Introductory Ecology
None	EST 160 Hydrologic Geology
None	MA 109 College Algebra

Total Hours: 10

4. Credit Hours Required

Current: 66 Proposed: No Change

a. Total Required for Graduation: 66 - No Change

b. Required by level:

100 33-48 200 23-38
 300 _____ 400-500 _____

c. Premajor or Preprofessional (if applicable) EST 150 Introductory Ecology, EST 160 Hydrologic Geology, MA 109 College Algebra

d. Field of Concentration (if applicable) Not Applicable

e. Division of Hours Between Major Subject and Related Field (if applicable) Not Applicable

f. Hours Needed for a Particular Option or Specialization (if applicable) Not Applicable

g. Technical or Professional Support Electives (if applicable) 6 hours

h. Minimum Hours of Free or Supportive Electives [Required] Not Applicable

5. Major or Professional Course Requirements

<u>Current:</u>	<u>Proposed</u>
First Semester/ Fall	
ENG 101	Writing I* 3
MA 109	College Algebra* 3
CIS 105	Introduction to Computing 3
BIO 103	Basic Ideas of Biology 3
BIO 111	Introductory Biology Lab 1
EST 150	Introductory Ecology 4
Second Semester/Spring	
ENG 102	Writing II* 3

CIS 130	Microcomputer Applications	3	
CHE 105	General College Chemistry	3	
CHM 105	General College Chemistry Lab		1
EST 160	Hydrologic Geology	3	
EST 170	Environmental Sampling		2

Third Semester/Fall

COM 181	Basic Public Speaking*		3
OR			
COM 252	Intro. To Interpersonal Communications*	(3)	
Social Interaction Course*		3	
EST 220	Pollution of Aquatic Ecosystems	3	
EST 230	Aquatic Chemistry Lab		2
EST 240	Sources and Effects of Air Pollution	4	
Technical Elective		3	

Fourth Semester/Spring

EST 250	Solid and Hazardous Waste Management	3	
EST 260	Environmental Analysis Lab	2	
EST 270	Environmental Law and Regulation	3	
EST 280	Environmental Trends Seminar	1	
Technical Elective		3	
Heritage/Humanities Course*		3	

Total = 66

(Current) Technical Electives

PHY 151	Introduction to Physics		3
COE 199	Cooperative Education (Internship)	1-3	
EST 299	Selected Topics in Environmental Sci. Technology	1-3	
STA 200	Statistics : A Force in Human Judgment		3
CAD 100	Introduction to Computer-Aided Design		3
GIS 110	Spatial Data Analysis	3	
GIS 120	Introduction to Geographic Information Systems		3
CIS 234	Advanced Spreadsheet Applications	3	
ENG 203	Business Writing	3	
CHE 107	General College Chemistry II	3	
CHM 107	General College Chemistry Laboratory II	2	
GEO 210	Pollution, Hazards, & Environmental Management	3	
GLY 220	Principles of Physical Geology	4	
ECO 201	Principles of Economics I	3	
CE 211	Surveying	4	
ACH 185	Computer-Aided Drafting I	3	

PROPOSED:

Pre-major Requirements

MA 109	College Algebra*	3	
EST 150	Introductory Ecology	4	
EST 160	Hydrologic Geology	3	

First Semester/ Fall

ENG 101	Writing I*	3	
CIS 105	Introduction to Computing	3	
BIO 103	Basic Ideas of Biology	3	
BIO 111	Introductory Biology Lab	1	
	Social Interaction Course*	3	

Second Semester/Spring

ENG 102	Writing II*	3	
CIS 130	Microcomputer Applications	3	
CHE 105	General College Chemistry	3	
CHM 105	General College Chemistry Lab		1
EST 170	Environmental Sampling	2	

Third Semester/Fall

COM 181	Basic Public Speaking*		3
	OR		
COM 252	Intro. To Interpersonal Communications*	(3)	
EST 220	Pollution of Aquatic Ecosystems	3	
EST 230	Aquatic Chemistry Lab		2
EST 240	Sources and Effects of Air Pollution	4	
	Technical Elective	3	

Fourth Semester/Spring

EST 250	Solid and Hazardous Waste Management	3	
EST 260	Environmental Analysis Lab	2	
EST 270	Environmental Law and Regulation	3	
EST 280	Environmental Trends Seminar		1
	Technical Elective	3	
	Heritage/Humanities Course*	3	

Total = 66**(Proposed) Technical Electives**

GIS 110	Spatial Data Analysis	3	
GIS 120	Introduction to Geographic Information Systems	3	
CAD 100	Introduction to Computer-Aided Design		3
	OR		
ACH 185	Computer-Aided Drafting I	3	
CIS 234	Advanced Spreadsheet Applications	3	
BIO 208	Principles of Microbiology	3	
BIO 209	Introductory Microbiology Laboratory		2
EST 225	Freshwater Invertebrates	3	
EST 299	Selected Topics in Environmental Sci. Technology	1-3	
STA 200	Statistics: A Force in Human Judgment		3
ENG 203	Business Writing	3	
CHE 107	General College Chemistry II	3	
CHM 107	General College Chemistry Laboratory II	2	

GEO 210	Pollution, Hazards, & Environmental Management	3	
GLY 220	Principles of Physical Geology	4	
ECO 201	Principles of Economics I	3	
PHY 151	Introduction to Physics		3
COE 199	Cooperative Education (Internship)	1-3	

6. Minor Requirements (if applicable)

Current:

Proposed

Not Applicable

Total Hours: _____

7. Rationale for Change(s): (If rationale involves accreditation requirements, please include specific references to those requirements.)

1. The Environmental Science Technology (EST) Program has adopted an admissions requirement. As part of the new process, EST 150, EST 160, and MA 109 now will be considered Premajor courses. Thus the program and catalog must be updated to reflect this change.

2. Additions, Deletions and Changes to the EST Technical Electives list:

A. Adding EST 225 Freshwater Invertebrates to the list. This course has been added to the EST Program curriculum and therefore must be added to the list.

B. Adding BIO 208 Principles of Microbiology and BIO 209 Introductory Microbiology to the list. The purpose of the technical electives is to give students an opportunity to focus on an area that may be of special interest to their career plans. The current list does not provide the opportunity to take more biology courses. Since microorganisms play such an important role in many types of environmental applications, these courses are being added to the list.

C. Deleting CE 211 Surveying from the list. This course is not taught at LCC (only at UK) and it has two prerequisites that are not part of the EST curriculum. Therefore, it is not practical for EST students to take this course as a technical elective.

D. The way the current Technical Electives list reads, an EST student could take both ACH 185 Computer-Aided Drafting I and CAD 100 Introduction to Computer-Aided Design as technical electives. This is not appropriate since both courses are introductory CAD courses. The list should be changed to read: ACH 185 OR CAD 100.

8. List below the typical semester by semester program for a major.

Current

Proposed

First Semester/ Fall

ENG 101	Writing I*	3
MA 109	College Algebra*	3
CIS 105	Introduction to Computing	3
BIO 103	Basic Ideas of Biology	3
BIO 111	Introductory Biology Lab	1
EST 150	Introductory Ecology	4

Second Semester/Spring

ENG 102	Writing II*	3	
CIS 130	Microcomputer Applications	3	
CHE 105	General College Chemistry	3	
CHM 105	General College Chemistry Lab		1
EST 160	Hydrologic Geology	3	
EST 170	Environmental Sampling		2

Third Semester/Fall

COM 181	Basic Public Speaking*		3
OR			
COM 252	Intro. To Interpersonal Communications*	(3)	
Social Interaction Course*		3	
EST 220	Pollution of Aquatic Ecosystems	3	
EST 230	Aquatic Chemistry Lab		2
EST 240	Sources and Effects of Air Pollution	4	
Technical Elective		3	

Fourth Semester/Spring

EST 250	Solid and Hazardous Waste Management	3	
EST 260	Environmental Analysis Lab	2	
EST 270	Environmental Law and Regulation	3	
EST 280	Environmental Trends Seminar	1	
Technical Elective		3	
Heritage/Humanities Course*		3	

Total = 66

(Current) Technical Electives

PHY 151	Introduction to Physics		3
COE 199	Cooperative Education (Internship)	1-3	
EST 299	Selected Topics in Environmental Sci. Technology	1-3	
STA 200	Statistics : A Force in Human Judgment		3
CAD 100	Introduction to Computer-Aided Design		3
GIS 110	Spatial Data Analysis	3	
GIS 120	Introduction to Geographic Information Systems		3
CIS 234	Advanced Spreadsheet Applications	3	
ENG 203	Business Writing	3	
CHE 107	General College Chemistry II	3	
CHM 107	General College Chemistry Laboratory II	2	
GEO 210	Pollution, Hazards, & Environmental Management	3	
GLY 220	Principles of Physical Geology	4	
ECO 201	Principles of Economics I	3	
CE 211	Surveying	4	
ACH 185	Computer-Aided Drafting I	3	

PROPOSED:

Pre-major Requirements

MA 109	College Algebra*	3	
EST 150	Introductory Ecology	4	

EST 160	Hydrologic Geology	3	
First Semester/ Fall			
ENG 101	Writing I*	3	
CIS 105	Introduction to Computing	3	
BIO 103	Basic Ideas of Biology	3	
BIO 111	Introductory Biology Lab	1	
	Social Interaction Course*	3	
Second Semester/Spring			
ENG 102	Writing II*	3	
CIS 130	Microcomputer Applications	3	
CHE 105	General College Chemistry	3	
CHM 105	General College Chemistry Lab		1
EST 170	Environmental Sampling	2	
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	OR		
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EST 220	Pollution of Aquatic Ecosystems	3	
EST 230	Aquatic Chemistry Lab		2
EST 240	Sources and Effects of Air Pollution	4	
	Technical Elective	3	
Fourth Semester/Spring			
EST 250	Solid and Hazardous Waste Management	3	
EST 260	Environmental Analysis Lab	2	
EST 270	Environmental Law and Regulation	3	
EST 280	Environmental Trends Seminar		1
	Technical Elective	3	
	Heritage/Humanities Course*	3	

Total = 66

(Proposed) Technical Electives

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GIS 120	Introduction to Geographic Information Systems	3	
CAD 100	Introduction to Computer-Aided Design		3
	OR		
ACH 185	Computer-Aided Drafting I	3	
CIS 234	Advanced Spreadsheet Applications	3	
BIO 208	Principles of Microbiology	3	
BIO 209	Introductory Microbiology Laboratory		2
EST 225	Freshwater Invertebrates	3	
EST 299	Selected Topics in Environmental Sci. Technology	1-3	
STA 200	Statistics: A Force in Human Judgment		3
ENG 203	Business Writing	3	
CHE 107	General College Chemistry II	3	

CHM 107	General College Chemistry Laboratory II	2	
GEO 210	Pollution, Hazards, & Environmental Management	3	
GLY 220	Principles of Physical Geology	4	
ECO 201	Principles of Economics I	3	
PHY 151	Introduction to Physics		3
COE 199	Cooperative Education (Internship)	1-3	

Will this program be printed in the Bulletin? Yes No