

Approval Chart for Curriculum Changes

A = Approve I= Information Item¹ R= Advise & Respond²

Course Number _____ or Degree Plan(s) ENVR

State the requested change and reason. A memo may be attached if more space is necessary.

The goal of this revision is to incorporate an experiential learning component (ELC) in the learning of every student within the department. The ELC is 3 credit hours, drawn from a menu of the options a-c below

- a. a student-led research project
- b. an internship
- c. participation in a departmental study abroad, currently in association with Wildcats on Mission (WAM)

Rationale: Though students in A&E get much hands-on learning throughout the department's curriculum, they do not all get experiential learning; learning that challenges them with dissonance and reflection. We also recognize the practical advantage of students doing research or internships in entering graduate school or careers.

See attached proposal catalog changes.

Circle the number that corresponds to the requested change. Degree plan changes are on the second page.

Change to a Course		COUNCIL ³								
		Dept./School	College Academic	Deans	TEC	UGEC	UUAC	GRAD	Provost	President
1.	Title (description unchanged)	A	A	A	I				I	I
2.	Description (not affecting content)	A	A	A	I				I	I
3.	Course term(s)	A	I	A	I				I	I
4.	Content (substantive change)	A	A	A	I				A	A
5.	Number of hours (lecture, lab, contact)	A	A	A	A				A	A
6.	Course number within the hundred	A	A	I	I				I	I
7.	Course number beyond the hundred	A	A	A	A				A	A
8.	Prerequisites	A	A	A	I				I	I
9.	Course fee(s)	A	--	A	--				A	I
10.	From U to G <i>or</i> G to U	A	A	A	A				A	A
11.	Cross list with another department: U or G level	A	A	A	A				A	A
12.	Department of record	A	A	A	A				A	A
13.	Open or close a course	A	A	A	A				A	A
14.	New course — See website for application and process. This change includes combining or splitting a course(s).	A	A	A	A				A	A

Note: When an academic unit does not have a council, the UGEC and/or UUAC will serve as its academic council, depending on the nature of the issue.

Approval Chart for Curriculum Changes

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		COUNCIL ³										
	Change to a Degree Plan	Dept./School	College Academic	Deans	TEC	UGEC	UAC	GRAD	Provost	Faculty	President	Board of Trustees
1.	University Requirements — Change in approved course content ⁶	A	A	A	A				A	--	A	--
2.	University Requirements — Add or drop a required course from the University Requirements chart ⁶	A	A	A	A				A	A	A	--
3.	University Requirements — Add or drop a course from a menu within the University Requirements ⁶	A	--	--	A				A	--	A	--
4.	University Requirements — Change hours within a menu on the University Requirements chart ⁶	A	A	A	A				A	A	A	--
5.	Major — Revision of major ^{4,5}	A	A	A	A				A	--	A	--
6.	Major — Adopt or change admission requirements	A	A	A	A				A	--	A	--
7.	Major — Add ^{4,5}	A	A	A	A				A	A	A	I
8.	Major – Discontinue (proposed by the department or college)	A	A	A	A				A	A	A	I
9.	Major – Discontinue (proposed by the Provost)	See below.										
10.	GPA — Revise major or cumulative requirement	A	A	A	A				A	A	A	--
11.	Minor — Revise course selection	A	A	A	I				I	--	I	--
12.	Minor — Add	A	A	A	A				A	--	A	--
13.	Minor – Discontinue (proposed by the department or college)	A	A	A	A				A	--	A	--
14.	Minor – Discontinue (proposed by the Provost)	See below.										
15.	Degree — Add	A	A	A	A				A	A	A	I
16.	Degree – Discontinue (proposed by the department or college)	A	A	A	A				A	A	A	I
17.	Degree – Discontinue (proposed by the Provost)	See below.										
18.	Any change to a graduate degree program	A	A	A	A				A	--	A	--

		COUNCIL ³								Board of Trustees
Provost-Proposed Change		Provost	Department	Dean	TEC	UAC	Graduate	Faculty	President	
1.	Major/Graduate Program — Discontinue (proposed by the Provost)	A	R	R	A			A	A	I
2.	Minor — Discontinue (proposed by the Provost)	A	R	R	A			--	A	--
3.	Degree — Discontinue (proposed by the Provost)	A	R	R	A			A	A	I

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COUNCIL ³										
	Change to the Catalog Information	Dept./School	College Academic	Deans	UGEC	UUAC	GRAD	Provost	Faculty	President
1.	General requirements for graduation including course requirements that are common to all majors for all degrees ⁷	--	--	--	A			A	A	A
2.	Admission requirements	--	--	--	A			A	A	A
3.	Policies governing academic probation and suspension	--	--	--	A			A	A	A
4.	Requirements for graduating with honors	--	--	--	A			A	A	A
5.	Other academic policy changes	--	--	--	A			A	--	A

¹ Councils may request additional information about "Information" items. These items are approved as "Consent Agenda."

² The Dean and Department should respond to the Provost's recommendation to close a program in writing. Advise & Respond (R) requires that the voting body should receive the written responses at least one week prior to the vote.

³ All courses that meet University Requirements for general education must go through UGEC. Courses or degrees offered only to students seeking teacher certification must go through the Teacher Education Council. All undergraduate changes must go before the UUAC. All graduate degree plan changes must go through the Graduate Council.

⁴ A minimum of 30 hours is required for a major. A maximum is specified for each degree (e.g., BA, BS). The university minimum for elective hours is 6, unless the requirements of external accrediting bodies make it impossible.

⁵ Program or course changes that apply to any major that includes Teacher Certification will be reviewed by the college, the Teacher Education Council (TEC), and then the UUAC.

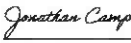
⁶ Courses that satisfy ACU's University Requirements (General Education) will normally have lower-level numbering, be free of prerequisites and co-requisites, appeal to more than one or two majors, and "not narrowly focus on those skills, techniques, and procedures specific to a particular occupation or profession" (SACS 2.7.3). Departments may request exceptions to the first three criteria.

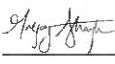
⁷ The UUAC approved the clarification that "general requirements for graduation" means the enumerated items in the "General Requirements for Bachelor's Degrees" section of the catalog.

Revised 3-8-17

Curriculum/Catalog Changes Signature Page

Department/School Chair(s)	
 Signature	09/10/2021 Approval date
_____ Signature	_____ Approval date

College Academic Council(s)	
 Signature	_____ Approval date
_____ Signature	_____ Approval date

Dean(s)	
 Signature	_____ Approval date
_____ Signature	_____ Approval date

Teacher Education Council	
_____ Chair's signature	_____ Approval date

General Education Council	
_____ Chair's signature	_____ Approval date

Undergraduate Academic Council	
_____ Chair's signature	_____ Approval date

Graduate Council	
_____ Chair's signature	_____ Approval date

Provost	
_____ Signature	_____ Approval date

Faculty	
_____ Chair of faculty senate	_____ Approval date

President	
_____ Signature	_____ Approval date

Justification for Curriculum Change in A&E Degree Plans

Experiential learning is known to enhance comprehension and application in learning, as well as improve marketability in graduates. Although the programs within the A&E department include a number of experiential opportunities, this change ensures that an intentional experiential learning component is part of the education of every student within the department.

See the attached course rotation, faculty load, and new requirement in the department home page.

Bachelor of Science Degrees (BS)

Admission Requirements

Before being admitted to a program, a student must satisfy the requirements listed in the ACT/SAT Placement Information section of this catalog.

Degree plans include academic and practical experience, including experiential learning. As part of the experiential learning requirement, students are required to complete 3 credit hours in an internship, independent research, or a departmental study abroad.

AES Faculty Load

Instructor	Appointment	Fall
Brokaw, J	Full-time Bio	BIOL 345/ENVR 345
Carpenter	Full-time	AENV 130, ENVR 320, ENVR 350, ENVR 455, AENV 384
Jernigan	Full-time	AENV 110*, AENV 130, AENV 371, ENVR 341
Willis	Full-time	AENV 110*, ANSC 111, ANSC 343, ANSC 360, ANSC 496
Craig	Adjunct	ENVR 410
Tulloch	Adjunct	ENVR 241
Needham	Adjunct	ANSC 235
Judah	Adjunct	

* AENV 110 is co-taught by Jernigan and Animal Science faculty (currently open)

Course Rotations

Course ID	Semester	Hour Split
AENV 110	Fall	2-2-3
AENV 130	Fall, Spring	3-0-3
AENV 371	Fall, even yrs	3-0-3
AENV 384	Fall	3-0-3
AGRB 261	Spring	3-0-3
AGRB 382	Spring	3-0-3
ANSC 111	Fall	2-3-3
ANSC 235	Fall	3-0-3
ANSC 336	Spring	2-3-3
ANSC 343	Fall-odd yrs	3-0-3
ANSC 360	Fall, Spring	2-3-3
ANSC 363	Spring, even yrs	3-0-3
ANSC 392	Spring	3-0-3
ANSC 483	Spring, odd yrs	3-0-3
ANSC 496	Fall, even yrs	3-0-3
ANSC 497	Spring	3-0-3
ENVR 112	Spring	2-3-3
ENVR 233	Spring	2-3-3
ENVR 241	Fall, odd years	2-3-3
ENVR 320	Fall, even yrs	2-3-3
ENVR 341	Fall, odd yrs	2-3-3
ENVR 345	Fall	2-3-3
ENVR 350	Fall, odd yrs	2-3-3
ENVR 354	Spring, even yrs	2-2-3
ENVR 410	Fall	3-0-3
ENVR 420	Spring	3-0-3
ENVR 455	Fall, even yrs	3-3-4
ENVR 458	Spring, odd yrs	2-3-3

Instructor	Appointment	Spring
Brokaw, J	Full-time Bio	
Carpenter	Full-time	AENV 130, ENVR 233, ENVR 354, ENVR 458
Jernigan	Full-time	AENV 130, ENVR 112, ENVR 420
Willis	Full-time	ANSC 336, ANSC 360, ANSC 363, ANSC 483, ANSC 497
Needham	Adjunct	ANSC 392
Judah	Adjunct	AGRB 261, AGRB 382

Environmental Science, Environmental Sustainability, BS (ENVR-ENVS)

BS: Environmental Science Degree Plan (ENVR)

The purpose of this degree is to fulfill the educational needs of students who are preparing for careers in natural resource management. As the national consciousness of the finite nature of natural resources has increased, the extraction industries, agriculture and manufacturers in general have been required to change the way they handle natural resources. Interactions between companies that consume natural resources and regulations governing the conservation of these resources have led to the creation of new disciplines and new career opportunities. Graduate schools in colleges of agriculture as well as in colleges of arts and sciences offer degrees and graduate assistantships in a multitude of environmental areas. The emergence of new jobs in natural resource management indicates the opportunities for graduates in environmental science.

University Requirements

Please see the [University Requirements](#) section of this catalog.

Major Requirements

Agricultural and Environmental Sciences Core

[AENV 110 - Introduction to Agricultural and Environmental Systems and Technology](#) Credit Hours: 3

[AGRB 261 - Principles of Agricultural and Applied Economics](#) Credit Hours: 3 *

[ANSC 111 - General Animal Science](#) Credit Hours: 3

[ENVR 112 - Plant Science](#) Credit Hours: 3

[ENVR 233 - Soil Science](#) Credit Hours: 3

*Hours may also fulfill university requirements and are not included in total major hours

Experiential Learning

Students are required to complete an experiential learning component.

Choose one option from the list below:

- [AENV 381 – International Applications in Agricultural & Environmental Sciences](#) Credit Hours: 3
- [AENV 384 – Internship in Agricultural & Environmental Sciences](#) Credit Hours: 3
- [AENV 399 – Research in Agricultural & Environmental Sciences](#) Credit Hours: 3*

AENV 399 is offered for variable credit, 1-3 hours. A total of 3 hours must be taken to meet the experiential learning requirement. The course may be repeated for up to 3 hours.

Total: 12 15 Credit Hours

Environmental Science Core

[AENV 371 - Experimental Designs and Data Analysis](#) Credit Hours: 3

[ENVR 241 - Geographic Information Systems](#) Credit Hours: 3

[ENVR 341 - Water Resources](#) Credit Hours: 3

or

[ENVR 354 - Range Science](#) Credit Hours: 3

[ENVR 345 - Range and Wildland Plants](#) Credit Hours: 2

[ENVR 346 - Range and Wildland Plants Laboratory](#) Credit Hours: 1

[ENVR 350 - Rangeland Ecology](#) Credit Hours: 3

[ENVR 410 - Environmental Law and Policy](#) Credit Hours: 3 (capstone course)

[ENVR 420 - Environmental Thought](#) Credit Hours: 3 (capstone and writing-intensive course)

Total: 21 Credit Hours

Environmental Sustainability (ENVS)

[ENVR 320 - Energy Resources](#) Credit Hours: 3

Advanced selections (300-499) from AENV or ENVR Credit Hours: 6

Choose a minimum of 15 hours from the following:

[CHEM 112 - Introductory Organic and Biological Chemistry Laboratory](#) Credit Hours: 1

[CHEM 114 - Introductory Organic and Biological Chemistry](#) Credit Hours: 3

[CHEM 131 - General Chemistry Laboratory I](#) Credit Hours: 1

[CHEM 132 - General Chemistry Laboratory II](#) Credit Hours: 1

[CHEM 134 - General Chemistry II](#) Credit Hours: 3

[CHEM 221 - Organic Chemistry Laboratory I](#) Credit Hours: 1

[CHEM 223 - Organic Chemistry I](#) Credit Hours: 3
[CHEM 322 - Organic Chemistry Laboratory II](#) Credit Hours: 1
[CHEM 324 - Organic Chemistry II](#) Credit Hours: 3
[CHEM 341 - Environmental Chemistry](#) Credit Hours: 3
[POLS 341 - American Public Policy](#) Credit Hours: 3
[POLS 345 - Comparative Public Policy](#) Credit Hours: 3
[POLS 360 - Politics of Developing Countries](#) Credit Hours: 3
[POLS 395 - Public Administration](#) Credit Hours: 3
[POLS 492 - American Political Thought](#) Credit Hours: 3
[POLS 494 - Public Administration Management](#) Credit Hours: 3

Track Total: 24 Credit Hours

Supplement for Major

Social Science

Choose 3 hours from the following menu:

[POLS 225 - National Government](#) Credit Hours: 3 *
[POLS 226 - States and Federal System](#) Credit Hours: 3 *
[POLS 227 - Introduction to International Relations](#) Credit Hours: 3 *

*Hours may also fulfill university requirements and are not included in total major hours

English

[ENGL 327 - Scientific and Technical Writing](#) Credit Hours: 3

Mathematics

[MATH 123 - Elementary Statistics](#) Credit Hours: 3 *

or

[MATH 377 - Statistical Methods I](#) Credit Hours: 3 *

*Hours may also fulfill university requirements and are not included in total major hours

Science Core

[BIOL 121 - Introductory Biology I](#) Credit Hours: 3 *
[BIOL 122 - Introductory Biology I Laboratory](#) Credit Hours: 1
[BIOL 123 - Introductory Biology II](#) Credit Hours: 3
[BIOL 124 - Introductory Biology II Laboratory](#) Credit Hours: 1

[CHEM 113 - Introductory Chemistry](#) Credit Hours: 3 *

or

[CHEM 133 - General Chemistry I](#) Credit Hours: 3 *

*Hours may also fulfill university requirements and are not included in total major hours

Total Supplement Hours: 8

Electives

Minimum – 7 4 Credit Hours

Total Major Hours: 72

Other Graduation Requirements

Minimum GPA for graduation: 2.00

Minimum advanced hours: 33

Minimum total hours: 128

*Courses numbered 0** do not count in minimum hours required for degree.*

Environmental Science, Wildlife and Natural Resource Management, BS (ENVR-ENVW)

BS: Environmental Science Degree Plan (ENVR)

The purpose of this degree is to fulfill the educational needs of students who are preparing for careers in natural resource management. As the national consciousness of the finite nature of natural resources has increased, the extraction industries, agriculture and manufacturers in general have been required to change the way they handle natural resources. Interactions between companies that consume natural resources and regulations governing the conservation of these resources have led to the creation of new disciplines and new career opportunities. Graduate schools in colleges of agriculture as well as in colleges of arts and sciences offer degrees and graduate assistantships in a multitude of environmental areas. The emergence of new jobs in natural resource management indicates the opportunities for graduates in environmental science.

University Requirements

Please see the [University Requirements](#) section of this catalog.

Major Requirements

Agricultural and Environmental Sciences Core

[AENV 110 - Introduction to Agricultural and Environmental Systems and Technology](#) Credit Hours: 3

[AGRB 261 - Principles of Agricultural and Applied Economics](#) Credit Hours: 3 *

[ANSC 111 - General Animal Science](#) Credit Hours: 3

[ENVR 112 - Plant Science](#) Credit Hours: 3

[ENVR 233 - Soil Science](#) Credit Hours: 3

*Hours may also fulfill university requirements and are not included in total major hours

Experiential Learning

Students are required to complete an experiential learning component.

Choose one option from the list below:

- [AENV 381 – International Applications in Agricultural & Environmental Sciences](#) Credit Hours: 3
- [AENV 384 – Internship in Agricultural & Environmental Sciences](#) Credit Hours: 3
- [AENV 399 – Research in Agricultural & Environmental Sciences](#) Credit Hours: 3*

AENV 399 is offered for variable credit, 1-3 hours. A total of 3 hours must be taken to meet the experiential learning requirement. The course may be repeated for up to 3 hours.

Total: ~~12~~ 15 Credit Hours

Environmental Science Core

[AENV 371 - Experimental Designs and Data Analysis](#) Credit Hours: 3

[ENVR 241 - Geographic Information Systems](#) Credit Hours: 3

[ENVR 341 - Water Resources](#) Credit Hours: 3

or

[ENVR 354 - Range Science](#) Credit Hours: 3

[ENVR 345 - Range and Wildland Plants](#) Credit Hours: 2

[ENVR 346 - Range and Wildland Plants Laboratory](#) Credit Hours: 1

[ENVR 350 - Rangeland Ecology](#) Credit Hours: 3

[ENVR 410 - Environmental Law and Policy](#) Credit Hours: 3 (capstone course)

[ENVR 420 - Environmental Thought](#) Credit Hours: 3 (capstone and writing-intensive course)

Total: 21 Credit Hours

Wildlife and Natural Resource Management Track (ENVW)

[ANSC 336 - Animal Nutrition](#) Credit Hours: 3

[BIOL 362 - Ecology](#) Credit Hours: 3

[BIOL 370 - Field Ornithology](#) Credit Hours: 4

[BIOL 408 - General Mammalogy](#) Credit Hours: 3

[BIOL 409 - General Mammalogy Laboratory](#) Credit Hours: 1

[CHEM 114 - Introductory Organic and Biological Chemistry](#) Credit Hours: 3

or

[CHEM 134 - General Chemistry II](#) Credit Hours: 3

[ENVR 455 - Wildlife Ecology](#) Credit Hours: 4

[ENVR 458 - Wildlife Management Techniques](#) Credit Hours: 3

[MATH 109 - Precalculus I](#) Credit Hours: 3

or

[MATH 131 - Calculus for Application](#) Credit Hours: 3

Track Total: 27 Credit Hours

Supplement for Major

Social Science

Choose 3 hours from the following menu:

[POLS 225 - National Government](#) Credit Hours: 3 *

[POLS 226 - States and Federal System](#) Credit Hours: 3 *

[POLS 227 - Introduction to International Relations](#) Credit Hours: 3 *

*Hours may also fulfill university requirements and are not included in total major hours

English

[ENGL 327 - Scientific and Technical Writing](#) Credit Hours: 3

Mathematics

[MATH 123 - Elementary Statistics](#) Credit Hours: 3 *

or

[MATH 377 - Statistical Methods I](#) Credit Hours: 3 *

*Hours may also fulfill university requirements and are not included in total major hours

Science Core

[BIOL 121 - Introductory Biology I](#) Credit Hours: 3 *

[BIOL 122 - Introductory Biology I Laboratory](#) Credit Hours: 1

[BIOL 123 - Introductory Biology II](#) Credit Hours: 3

[BIOL 124 - Introductory Biology II Laboratory](#) Credit Hours: 1

[CHEM 113 - Introductory Chemistry](#) Credit Hours: 3 *

or

[CHEM 133 - General Chemistry I](#) Credit Hours: 3 *

*Hours may also fulfill university requirements and are not included in total major hours

Total Supplement Hours: 8

Electives

Minimum ~~4~~ 1 Credit Hours

Total Major Hours: 72

Other Graduation Requirements

Minimum GPA for graduation: 2.00

Minimum advanced hours: 33

Minimum total hours: 128

*Courses numbered 0** do not count in minimum hours required for degree.*
