



University Council

April 11, 2025

UNIVERSITY CURRICULUM COMMITTEE – 2024-2025

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Dear Colleagues:

The attached proposal from the College of Agricultural and Environmental Sciences to make the following changes under the major in Environmental Resource Science (B.S.E.S.) will be an agenda item for the April 18, 2025, Full University Curriculum Committee meeting.

- Proposal for an Area of Emphasis in Water and Soil Resources
- Proposal to terminate the Area of Emphasis in Environmental Chemistry
- Proposal to terminate the Area of Emphasis in Resource Management

Sincerely,

Susan Sanchez, Chair

cc: Provost S. Jack Hu

Dr. Marisa Pagnattaro

PROPOSAL FOR AN AREA OF EMPHASIS

Date: January 10, 2025

School/College: College of Agricultural and Environmental Sciences

Department/Division: Crop and Soil Sciences

Program (Major and Degree): Environmental Resource Science (B.S.E.S)

Which campus(es) will offer this program? Athens, Griffin

Proposed Effective Date: Fall 2025

1. Area of Emphasis Title: Water and Soil Resources

2. Area of Emphasis Description:

The Department of Crop and Soil Sciences intends to deactivate the Water and Soil Resources (B.S.E.S.) major in Fall 2026 and terminate it in Fall 2027, due to consistently low enrollment. When asked, students identified several barriers to enrollment in this major, including restrictive course requirements, limited transfer pathways, and difficulties pursuing complementary minors and certificates.

To address these concerns, the faculty propose establishing a new Area of Emphasis in Water and Soil Resources under the existing Environmental Resource Science (B.S.E.S.) major. This new Area of Emphasis retains the specialization on water and soil found in the original Water and Soil Resources (B.S.E.S) major while offering greater flexibility in course selection and degree planning.

The curriculum for this Area of Emphasis includes four soils courses and one course on water, and attendance at a minimum of six water-focused seminars, as outlined in the attached documentation.

Graduates of this program will be well-positioned to meet the Soil Science Series 0470 qualification standards set by the U.S. Office of Personnel Management. These standards, which are typically required for federal employment with agencies such as the USDA-Natural Resources Conservation Service, the Forest Service, and the Agricultural Research Service, require a bachelor's degree in soil science or a closely related discipline, including a minimum of 30 credit hours in related sciences (chemistry, biology, physics, and earth science) and at least 15 credit hours specifically in soil science. The proposed Area of Emphasis is intentionally designed to meet these requirements.

Students completing this Area of Emphasis will be encouraged to apply for the Undergraduate Certificate in Water Resources through the Warnell School of Forestry and Natural Resources. This credential, which appears on students' transcripts, further signals to prospective employers that students have completed targeted coursework relevant to careers in water and environmental resource management.

3. Area of Emphasis Requirements:

CRSS(GEOL) 4540/6540-4540L/6540L, Pedology (3 hours)

CRSS 4600/6600, Soil Physics (3 hours)

CRSS(MIBO) 4610/6610-4610L/6610L, Soil Microbiology (4 hours)

CRSS 4670/6670, Environmental Soil Chemistry (3 hours)

Choose one of the following courses:

CRSS 3050, Introduction to Water Quality (4 hours)

CRSS(WASR) 4660/6660, Hydrogeochemical Characterization of Environmental Field Sites (3 hours)

Total: 16-17 hours

Students will also be required to attend 6-8 seminars on water and water resources.

Students may:

- Attend six seminars in person. Students will be added to the seminar listserv by the program coordinator to receive notifications of upcoming seminars.
- Students may substitute up to three online seminars for three in-person seminars, with a total of six seminar write-ups.
- If the student's schedule does not allow for in-person attendance, the student may watch eight online seminars on the subject of water with a total of eight seminar write-ups submitted to the program coordinator. A wide range of appropriate online seminars may be found at [CUAHSIC Cyberseminars](https://www.youtube.com/user/CUAHSI/videos) (<https://www.youtube.com/user/CUAHSI/videos>).

PROPOSAL FOR TERMINATION OF AN AREA OF EMPHASIS

Date: January 2, 2025

School/College: College of Agricultural and Environmental Sciences

Department/Division: Crop and Soil Sciences

Area of emphasis to be terminated: Environmental Chemistry

Major(s) and degree(s) the area of emphasis is offered under? Environmental Resource Science (B.S.E.S.)

Which campus(es) offer this area of emphasis? Athens, Griffin

Proposed effective date: Fall 2025

Last date students will be admitted to this area of emphasis: Fall 2022

Last date students will complete this area of emphasis: Spring 2023

Program Abstract:

Provide a brief summary of the area of emphasis being proposed for termination.

The Area of Emphasis in Environmental Chemistry has a strong foundation in calculus, chemistry, and soil science. Throughout their program, students may create an environmental chemistry program focused on biogeochemistry, contaminant mitigation/remediation, or pursue a dual degree in chemistry. In all cases, students will be exposed to hands-on laboratory and field training in analyzing and interpreting samples. Students gain interdisciplinary education and experiences to prepare them for a career in a constantly developing field. The environmental chemistry discipline encompasses soil chemistry, water chemistry, atmospheric chemistry, and ecotoxicology and is essential to many other disciplines.

1. Why is this area of emphasis being proposed for termination?

The faculty are proposing to terminate this area of emphasis due to lack of enrollment. As of spring 2025, there are zero students enrolled in Environmental Resource Science (B.S.E.S.) who have selected this area of emphasis.

2. What will be done to ensure that termination of the area of emphasis does not weaken the major(s) under which it is offered?

The termination of this area of emphasis will have little or no effect on the Environmental Resource Science (B.S.E.S.) major. As all courses will continue to be offered, students who are interested in taking the coursework listed under the Area of Emphasis in Environmental Chemistry can use their electives for this purpose.

3. How will faculty and staff be notified of the termination? Will termination of the area of emphasis have any impact on the faculty and staff offering the area of emphasis?

Students, faculty, and staff in the Department of Crop and Soil Sciences will be notified of these changes via email. The undergraduate coordinators in other departments in the College of Agricultural and Environmental Sciences, the Warnell School of Forestry and Natural Resources, and the Odum School of Ecology will also be notified via email. Prospective students will be informed via the departmental website and via email or during prospective student visits.

The termination of this area of emphasis will have no effect on faculty or staff as all courses listed under this area of emphasis will continue to be taught as they are options in the Environmental Resource Science major.

4. How will students be notified of the termination? How will students currently in the area of emphasis be advised to complete the requirements?

There are no students currently enrolled in this area of emphasis. Students interested in this area of study can continue with the relevant coursework as all courses under this area of emphasis will continue to be taught.

5. What plans, if any, are there for subsequent reactivation of the area of emphasis?

There are no plans to reactivate this area of emphasis.

6. Provide a revised program of study/Bulletin layout of the major's requirements once the area of emphasis has been removed.

Please see attached.

PROPOSAL FOR TERMINATION OF AN AREA OF EMPHASIS

Date: January 2, 2025

School/College: College of Agricultural and Environmental Sciences

Department/Division: Crop and Soil Sciences

Area of emphasis to be terminated: Resource Management

Major(s) and degree(s) the area of emphasis is offered under? Environmental Resource Science (B.S.E.S.)

Which campus(es) offer this area of emphasis? Athens, Griffin

Proposed effective date: Fall 2025

Last date students will be admitted to this area of emphasis: Fall 2018

Last date students will complete this area of emphasis: Spring 2019

Program Abstract:

Provide a brief summary of the area of emphasis being proposed for termination.

The Area of Emphasis in Resource Management prepares students for a career in managing natural resources and will provide students with an opportunity to learn about using science to improve the environment and urban area resource management. Graduates of this program will obtain problem-solving skills and practical knowledge that prepares them for career opportunities in environmental research laboratories, environmental consulting firms, government, environmental horticulture production and management positions.

1. Why is this area of emphasis being proposed for termination?

The faculty are proposing to terminate this area of emphasis due to lack of enrollment. As of spring 2025, there are zero students enrolled in Environmental Resource Science (B.S.E.S.) who have selected this area of emphasis.

2. What will be done to ensure that termination of the area of emphasis does not weaken the major(s) under which it is offered?

The termination of this area of emphasis will have little or no effect on the Environmental Resource Science (B.S.E.S.) major. All courses currently listed under this area of emphasis will continue to be offered.

3. How will faculty and staff be notified of the termination? Will termination of the area of emphasis have any impact on the faculty and staff offering the area of emphasis?

Students, faculty, and staff in the Department of Crop and Soil Sciences will be notified of these changes via email. The undergraduate coordinators in other departments in the College of Agricultural and Environmental Sciences, the Warnell School of Forestry and Natural Resources, and the Odum School of Ecology will also be notified via email. Prospective students will be informed via the departmental website and via email or during prospective student visits.

The termination of this area of emphasis will have no effect on faculty or staff as all courses listed under this area of emphasis will continue to be taught.

4. How will students be notified of the termination? How will students currently in the area of emphasis be advised to complete the requirements?

There are no students currently enrolled in this area of emphasis. Students interested in this area of study can continue with the relevant coursework as all courses under this area of emphasis will continue to be taught.

5. What plans, if any, are there for subsequent reactivation of the area of emphasis?

There are no plans to reactivate this area of emphasis.

6. Provide a revised program of study/Bulletin layout of the major's requirements once the area of emphasis has been removed.

Please see attached.

Area VI Courses Related to the Major

STAT 2000

Choose 1 group(s) from the following:

BIOL 1108 AND BIOL 1108L

BIOL 2108H AND BIOL 2108L

Choose 1 group(s) from the following:

CHEM 1212-1212D AND CHEM 1212L

CHEM 1312H AND CHEM 1312L

Choose 1 course(s) from the following:

AAEC 2580

ECON 2106

Choose 1 course(s) from the following:

CRSS 4050/6050

GEOG 2011-2011L

GEOG 4370/6370-4370L/6370L

Required Courses (39-46 hours)

CRSS 1200

CRSS 2010

AND CRSS 2010L

CRSS(FANR) 3060

AND CRSS(FANR) 3060L

Choose 3 credit hour(s) from the following:

CRSS 3910

CRSS 3920

CRSS 3930

CRSS 4960R

Students may choose to major in Environmental Resource Science (General) or major in Environmental Resource Science with an Area of Emphasis in ~~Environmental Chemistry or Environmental Resource Management~~ **Water and Soil Resources**.

Courses to Enhance Knowledge of Fundamental Science:

Choose 11 to 12 credit hours from the following:

BCMB 3100

CHEM 2211-2211D AND CHEM 2211L

CSCI 1100-1100L

ENVE 2610

GEOG(ATSC) 1112

GEOG(ATSC) 1112L

GEOL 1121

GEOL 1121L

GEOL 1250-1250L

MATH 2200

MATH 2250

[MATH 2260](#)
[PHYS 1111-1111L](#)
[PHYS 1251](#)

Courses to Enhance Knowledge of Soil Processes:

Choose 1-4* course(s) from the following:

[CRSS\(GEOL\) 4540/6540-4540L/6540L](#)

[CRSS 4600/6600](#)

[CRSS\(MIBO\) 4610/6610-4610L/6610L](#)

[CRSS 4670/6670](#)

*Students in the general track should choose 1 course. Students in the Area of Emphasis in Water and Soil Resources should take all 4 courses.

Courses to Enhance Knowledge of Landscape Processes:

Choose 1 course(s) from the following:

[ATSC\(GEOG\) 3110](#)

[CRSS 4580/6580](#)

[EHSC 4080](#)

[GEOG 3010](#)

[GEOL 4220/6220](#)

[WASR\(FORS\) 4110/6110-4110L/6110L](#)

[WASR\(CRSS\)\(ECOL\)\(ENGR\)\(GEOG\)\(GEOL\) 4700L/6700L](#)

Courses to Enhance Knowledge of Earth Systems:

Choose 1 course(s) from the following:

[CRSS\(HORT\) 4400/6400](#)

[CRSS\(HORT\)\(ANTH\)\(ECOL\)\(GEOG\) 4930/6930](#)

[ECOL 3500](#)

AND [ECOL 3500L](#)

[ECOL 3530](#)

[ECOL 3770S](#)

[ECOL 4160-4160L](#)

[FANR 3200W](#)

AND [FANR 3200L](#)

Courses to Enhance Knowledge of Analytical Measurements:

Choose 1 course(s) from the following:

[CHEM 2300](#)

AND [CHEM 2300L](#)

[CHEM 3300](#)

[CRSS 3050*](#)

[CRSS\(WASR\) 4660/6660*](#)

[WASR 4500/6500](#)

*Students enrolled in the Area of Emphasis in Water and Soil Resources should choose from one of these two courses.

Courses to Enhance Knowledge of Human Dimensions and Policy:

Choose 1 course(s) from the following:

[ADSC 4000/6000](#)

[AESC 3110](#)
[ANTH 4255/6255](#)
[CRSS 4020S/6020S](#)
[ECOL 4880/6880](#)
[ENVM 4380](#)
[ENVM\(AAEC\) 4930/6930](#)
[FANR\(ANTH\)\(ECOL\)\(GEOG\)\(INTL\) 4271/6271](#)
[GEOG 4890S/6890S](#)
[JURI\(FANR\)\(ECOL\) 4810/6810](#)
[SOCI\(ANTH\) 3400](#)

Courses to Enhance Knowledge of Applied Environmental Management:

Choose 1 course(s) from the following:

[CRSS 3540](#)
[CRSS 4010/6010](#)
[CRSS 4090](#)
[CRSS 4580/6580](#)
[CRSS\(HORT\)\(ECOL\) 4590/6590](#)

Major Electives

Choose 3-12* credit hour(s) from the following:

3000-, 4000-, 5000-, or 6000-level courses from the prefixes listed below

Prefixes to Choose From:

AAEC, ADSC, AENG, AESC, AEXT, AGCM, ALDR, ANNU, ANTH, BCMB, BINF, BIOL, BIOS, BTEC CBIO, CHEM, CRSS, ECOL, EDES, EETH, EHSC, ENGR, ENTO, ENVM, FANR, FDST, FORS, GENE, GEOG, GEOL, HONS, HORT, LAND, MARS, MIBO, NUTR, PATH, PBGG, PBIO, PHYS, PLAN, POUL, SOCI, SUST, WASR, WILD

*Students in the general track will take 12 hours of Major Electives. Students in the Area of Emphasis in Water and Soil Resources will take 3 hours of Major Electives.

General Electives

Choose 2 to 7 credit hours from the following:

Any course(s) with approval of the advisor

~~Area of Emphasis in Environmental Chemistry~~

~~BCMB 3100~~
~~CHEM 2211-2211D~~
~~AND CHEM 2211L~~
~~CHEM 2300~~
~~AND CHEM 2300L~~
~~CHEM 3110~~
~~CRSS(WASR) 4660/6660~~
~~CRSS 4670/6670~~
~~EHSC 4080~~
~~EHSC 4610~~

~~Major Electives~~

Choose 15 credit hour(s) from the following:

3000 , 4000 , 5000 , or 6000 level courses from the prefixes listed below

General Electives

Choose 6 credit hour(s) from the following:

Any course(s) with approval of the advisor

Area of Emphasis in Environmental Resource Management

Courses to Enhance Knowledge of Fundamental Science:

Choose 11 to 12 credit hours from the following:

BCMB 3100

CHEM 2211-2211D

AND CHEM 2211L

CSCI 1100-1100L

ENVE 2610

GEOG(ATSC) 1112

GEOG(ATSC) 1112L

GEOL 1121

GEOL 1121L

GEOL 1250-1250L

MATH 2200

MATH 2250

MATH 2260

PHYS 1111-1111L

PHYS 1251

Courses to Enhance Knowledge of Soil Processes:

Choose 1 course(s) from the following:

CRSS(GEOL) 4540/6540-4540L/6540L

CRSS 4600/6600

CRSS(MIBO) 4610/6610-4610L/6610L

CRSS 4670/6670

Courses to Enhance Knowledge of Landscape Processes:

Choose 1 course(s) from the following:

ATSC(GEOG) 3110

CRSS 4580/6580

EHSC 4080

GEOG 3010

GEOL 4220/6220

WASR(FORS) 4110/6110-4110L/6110L

WASR(CRSS)(ECOL)(ENGR)(GEOG)(GEOL) 4700L/6700L

Course to Enhance Knowledge of Earth Systems:

Choose 1 course(s) from the following:

CRSS(HORT) 4400/6400

CRSS(HORT)(ANTH)(ECOL)(GEOG) 4930/6930

ECOL 3500

AND ECOL 3500L

ECOL 3530

ECOL 3770S

ECOL 4160 4160L

FANR 3200W

AND FANR 3200L

Courses to Enhance Knowledge of Analytical Measurements:

Choose 1 course(s) from the following:

CHEM 2300

AND CHEM 2300L

CHEM 3300

CRSS 3050

CRSS(WASR) 4660/6660

WASR 4500/6500

Courses to Enhance Knowledge of Human Dimensions and Policy:

Choose 1 course(s) from the following:

ADSC 4000/6000

AESC 3110

ANTH 4255/6255

CRSS 4020S/6020S

ECOL 4880/6880

ENVM 4380

ENVM(AAEC) 4930/6930

FANR(ANTH)(ECOL)(GEOG)(INTL) 4271/6271

GEOG 4890S/6890S

JURI(FANR)(ECOL) 4810/6810

SOCI(ANTH) 3400

Courses to Enhance Knowledge of Applied Environmental Management:

Choose 1 course(s) from the following:

CRSS 3540

CRSS 4010/6010

CRSS 4090

CRSS 4580/6580

CRSS(HORT)(ECOL) 4590/6590

Major Electives

Area of Emphasis in Environmental Resource Management

Choose 12 credit hour(s) from the following:

3000-, 4000-, 5000-, or 6000-level courses from the prefixes listed below

Area of Emphasis in Environmental Resource Management

Choose 2 to 7 credit hours from the following:

Any course(s) with approval of the advisor

Documentation of Approval and Notification

Proposal: Create an Area of Emphasis in Water and Soil Resources under Environmental Resource Science (B.S.E.S.); Terminate the Area of Emphasis in Environmental Chemistry and the Area of Emphasis in Resource Management under the major in Environmental Resource Science (B.S.E.S.)

College: College of Agricultural and Environmental Sciences

Department: Crop and Soil Science

Proposed Effective Term: Fall 2025

School/College:

- Head of the Department of Crop and Soil Science, Dr. Jodi Johnson-Maynard, 1/10/2025
- Undergraduate Coordinator for the Department of Crop and Soil Science, Dr. Jessica Barb, 1/10/2025
- College of Agricultural and Environmental Sciences Associate Dean, Dr. Dean Kopsell, 4/2/2025