

THE UNIVERSITY OF NORTH CAROLINA AT ASHEVILLE
FACULTY SENATE

Senate Document Number 7119S
Date of Senate Approval 05/02/19

Statement of Faculty Senate Action:

APC Document 60 (IST): Add Interdisciplinary Certificate in Sustainability

Effective Date: Fall 2019

1. **Add:** On page 181, after the entry for the Interdisciplinary Cluster in Food, Food Systems and Culture:

Interdisciplinary Certificate in Sustainability

Assistant Professor Lawlor (Coordinator)

Our increasingly complex and interdependent world needs critical thinkers with strong problem-solving skills who are able to address the long-term viability of social-ecological systems. The **Interdisciplinary Certificate in Sustainability** seeks to give students a broad understanding of environmental, socioeconomic, and humanistic systems through interdisciplinary academic preparation, community engagement, and cross-campus collaboration so that they can help develop local and global solutions for a sustainable future.

The certificate requires the completion of a minimum of 5 courses and 13 semester hours, to include IST 330, Sustainability Seminar (1 credit), the core required course for the certificate. The remaining classes must be chosen from the courses listed below, with at least two courses at the 300-400 level. Requests for course substitutions must be approved by the certificate coordinator. The combination of courses must comply with the guidelines for all interdisciplinary certificates, listed above.

Courses

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| ATMS | 103 | Introduction to Meteorology (3) |
| ATMS | 113 | Understanding the Atmosphere (3) |
| BIOL | 110 | Plants and Humans (3) |
| BIOL | 135 | Concepts in Ecology and Evolution (3) |
| ECON | 242 | Economics of Food (3) |
| ECON | 245 | Land Economics (3) |
| ECON | 337 | Environmental Economics and Policy (3) |
| ECON | 338 | Morality and Material Progress (3) |
| ECON | 345 | Economics of Natural Resources (3) |
| ECON | 450 | Seminar in Economics: The Economics of Food Systems (4) |
| ECON | 450 | Seminar in Economics: Environment and Development Economics (4) |
| ENVR | 130 | Introduction to Environmental Science (3) |
| ENVR | 234 | Energy and Society (3) |
| ENVR | 324 | Environmental Ethics (3) |
| ENVR | 332 | Environmental Management (3) |
| ENVR | 333 | Environment Design and Solar Energy (3) |
| ENVR | 336 | Environmental Health (3) |
| ENVR | 365 | Strategies for Sustainability (3) |
| HIST | 319 | Southern Appalachian History and Culture (4) |

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| HWP | 225 | Nutrition and Lifestyle (3) |
| HWP | 333 | Food Politics and Nutrition Policy (3) |
| INTS | 201 | Introduction to Global Studies |
| LIT | 363 | Appalachian Literature (4) |
| MCOM | 495 | Media Studies Seminar: Environmental Communication (4) |
| PHIL | 312 | Applied Ethics: Environmental Ethics (3) |
| POLS | 354 | Environmental Politics (4) |
| POLS | 363 | Political Economy of Development (4) |

Impact Statement

1. Student Learning Outcomes

SLO 1: Students will understand diverse perspectives, theories and terminology in the field of sustainability.

SLO 2: Students will learn to apply interdisciplinary approaches to sustainability challenges from local to global levels.

2. Impact on students:

- Students interested in demonstrating competence in interdisciplinary sustainability principles and approaches will have a place in the curriculum to do so.
- The certificate will allow students to develop an interdisciplinary peer community around sustainability scholarship and practice.
- The core required seminar will provide students with a forum to integrate their sustainability-related learning from other courses with the support of faculty from a wide range of disciplines.
- Through the McCullough Institute, students pursuing the certificate may have access to financial support for various types of related learning activities and professional development (e.g. conference attendance).

3. Impact on faculty teaching:

With the exception of the new course, IST 330, Sustainability Seminar, little impact on course offerings is anticipated. All other courses available for use by students in the sustainability certificate are already in existence or have been proposed. Courses may be added to our list of approved courses as they are developed.

4. Impact on resources and administrative oversight:

The faculty coordinator will oversee the promotion of the program and completion of certificate requirements. The coordinator role can rotate among faculty affiliated with the program from any department. No further impacts on facilities or faculty/staff burden are expected.

Funding from the **McCullough Institute for Conservation, Land Use and Environmental Resiliency** may be made available for any or all of the following related activities:

- Group project funding for the seminar course
- Transportation costs for seminar field trips
- Support for speakers, symposia, and other related co-curricular programs
- Professional development and internship funding for students pursuing the certificate
- Refreshments for social gatherings for students, faculty and staff affiliated with the certificate.

Rationale: The imperative to provide applied sustainability education at the college level is clear. The sustainability challenges facing our global community transcend disciplinary and political boundaries and are characterized by a web of interrelated causes and impacts that defy traditional problem-solving approaches. That said, this is also a golden age of tools for collective action across nations, cultures, and socioeconomic classes. We are more aware than ever before of the impact of unjust and unsustainable practices on human and non-human communities. Employers are increasingly recognizing sustainability knowledge and skills as core competencies required for their businesses and organizations to thrive into

the future. Colleges and universities are among the innovators and pioneers. The campus sustainability movement has spawned key initiatives, including the American College and University Presidents' Climate Commitment, that have set ambitious sustainability goals for our institutions, including the [UNC system](#).

As one of a handful of universities in the country to highlight [Sustainability as a core value](#) in its Strategic Plan, UNC Asheville is uniquely placed to infuse sustainability concepts in curricular and research offerings, in addition to co-curricular activities, physical campus, and operational processes. The institution currently offers a diverse array of courses touching on sustainability issues and themes, as well as a vibrant community of faculty members with interest in this area. This proposed Certificate will build on these strengths to offer students an integrated program of study in Sustainability.

Sustainability cannot be taught in one discipline or one course -- it belongs to the university. In order to fulfill commitments to the Sustainable Development Goals (SDGs), UNESCO asserts that higher education institutions must engage in a profound transformation of our formal teaching and learning approaches to support the emergence of a new generation of sustainability change makers. These new approaches require "action-oriented, transformative pedagogy, which supports self-directed learning, participation and collaboration, problem-orientation, inter- and transdisciplinarity and the linking of formal and informal learning." Using these approaches, we will empower students to engage with diverse perspectives on sustainability and apply interdisciplinary approaches to sustainability challenges.

A Certificate in Sustainability is a low-cost, high-impact approach to creating a wider learning community for students, staff, and faculty members with interests in this field. This certificate will complement UNC Asheville's mission in the liberal arts and build on our established institutional identity and sustainability accomplishments, including:

- [UNC Asheville's inclusion](#) in the Princeton Review's Guide to Green Colleges
- The \$1 million endowed [McCullough Institute for Conservation, Land Use and Environmental Resiliency](#) and the McCullough Fellowship Program;
- The Student Environmental Center, a unique and nationally-recognized model for student sustainability leadership on campus;
- Signature annual programs like Greenfest and the Farm-to-Table Dinner on the Quad;
- NEMAC, the National Environmental Modeling and Analysis Center;
- Our year-long faculty learning community and related working groups on sustainability;
- Our Bee- and Tree-Campus certifications, as well as our overall commitment to sustainability in our campus buildings and systems.

While sustainability certificate programs have been flourishing over the last five years or so (Table 1), the UNC Asheville Sustainability Certificate would be the only one of its kind in the UNC system. Among COPLAC schools, only Southern Oregon University and the University of Alberta (Augustana Campus) offer an academic sustainability certificate of any kind for undergraduates.

Table 1: Interdisciplinary sustainability certificate programs at peer and other institutions

| College | Program | # of courses/ credits required | Core course(s) | Other requirements |
|---|--|---|---|---|
| Wellesley/Olin/Babson | Sustainability Certificate | 5 courses | - Intro to Sustainability - Sustainability Synthesis | Electives must cover at least 3 disciplinary areas |
| Coastal Carolina University | Sustainability Certificate | 15-17 credit hours (6-7 courses) | - Intro to Sustainability - Sustainable Development | No more than 3 courses can be taken from a single department |
| Radford University | Sustainability and Environmental Studies Undergraduate Certificate | 18-22 credit hours (6 courses) | - Intro to Environmental Studies - Field Applications and Capstone Experience | Electives must cover 3 areas (Physical Systems, Policy & Economics, Human Dimensions) |
| Southern Oregon University | Certificate in Sustainability Leadership | 32 credit hours (8 courses) | - 5 courses from 3 lists | 3 electives |
| Temple University | Certificate in Sustainability | Minimum of 12 credit hours (4 courses) | - None | Electives must cover 4 different departments and must be outside major |
| Temple University | Certificate in Environmental Sustainability | 15-16 credit hours (5 courses) | - Intro to Community & Regional Planning - Sustainable Design OR Natural & Built Environment - Plant Ecology OR Intro Geology | 2 electives |
| University of Alberta, Augustana Campus | Sustainability Certificate | 27 credits | - 6 credits from core course list | 6 elective credits from list plus 3-credit“integrative project” |
| Connecticut College | Certificate Program in Environmental Sustainability | 4 courses plus seminar | - Environmental Studies as a Natural Science OR | 3 electives |

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| | | | <ul style="list-style-type: none"> - Environmental Studies as a Social Science - Goodwin Niering Certificate Seminar | |
| Georgia College | Sustainability Certificate | 22-27 credit hours | <ul style="list-style-type: none"> - Sustainability - Sustainability Capstone | 1 lower and 1 upper level course from 3 areas: Economics, Ethics/ Humanities, Ecology |
| University of Maine at Machias | Sustainability Certificate | 18 credit hours | <ul style="list-style-type: none"> - Intro to Sustainability - Environmental Issues - Sustainability Capstone | 9 elective credits plus a leadership course |