

New Program Proposal

Date Submitted: 03/09/23 10:49 am

Viewing: **ENREGM : Environmental Resiliency**
Graduate MicroCertificate

Last edit: 03/15/23 7:23 am

Changes proposed by: jkvamme

Submitter:	User ID:	jkvamme	Phone:	479-575-6603
Program Status	Active			
Academic Level	Graduate			
Type of proposal	MicroCertificate			
Select a reason for this new program	Adding New Graduate MicroCertificate			
Effective Catalog Year	Fall 2023			
College/School Code	Graduate School and International Education (GRAD)			
Department Code	Environmental Dynamics (ENDY)			
Program Code	ENREGM			
Degree	Graduate MicroCertificate			
CIP Code				

- In Workflow
- 1. GRAD Dean Initial
 - 2. GRAD Dean Initial
 - 3. Director of Curriculum Review and Program Assessment
 - 4. Registrar Initial
 - 5. Institutional Research
 - 6. ENDY Chair
 - 7. ARCH Dean
 - 8. GRAD Dean
 - 9. Global Campus
 - 10. Provost Review
 - 11. Graduate Council
 - 12. Faculty Senate
 - 13. Provost Final
 - 14. Registrar Final
 - 15. Catalog Editor Final

- Approval Path
- 1. 03/09/23 12:54 pm
Christa Hestekin (chesteki):
Approved for GRAD Dean Initial
 - 2. 03/09/23 12:57 pm
Christa Hestekin (chesteki):
Approved for GRAD Dean Initial
 - 3. 03/13/23 12:30 pm
Alice Griffin (agriffin): Approved for Director of Curriculum Review and Program Assessment

- 4. 03/15/23 7:23 am
Gina Daugherty
(gdaugher):
Approved for
Registrar Initial
- 5. 03/15/23 10:25 am
Doug Miles
(dmiles): Approved
for Institutional
Research
- 6. 03/15/23 10:40 am
Christa Hestekin
(chesteki):
Approved for ENDY
Chair
- 7. 03/15/23 4:43 pm
Melinda Smith
(melindas):
Approved for ARCH
Dean
- 8. 03/16/23 8:40 am
Christa Hestekin
(chesteki):
Approved for GRAD
Dean
- 9. 03/16/23 8:43 am
Suzanne Kenner
(skenner): Approved
for Global Campus
- 10. 03/16/23 9:39 am
Jim Gigantino
(jgiganti): Approved
for Provost Review
- 11. 04/05/23 3:36 pm
Christa Hestekin
(chesteki):
Approved for
Graduate Council

03.0101 - Natural Resources/Conservation, General.

Program Title

Environmental Resiliency Graduate MicroCertificate

Program Delivery

Method

Online/Web-based

Is this program interdisciplinary?

Yes

College(s)/School(s)

College/School Name
Graduate School (GRAD)
Fay Jones School of Architecture (ARCH)

Does this proposal impact any courses from another College/School?

Yes

College(s)/School(s)

College/School Name
Fay Jones School of Architecture and Design (ARCH)

What are the total
hours needed to
complete the
program?

9

On-line/Web-based Information

Reason for offering

Web-based Program

This MicroCertificate is for those working to learn more about resiliency. This curriculum will create professional growth opportunities for them. The MicroCertificates are able to be combined into a Graduate Certificate or ultimately into a masters in Environmental Resiliency.

Maximum Class Size 25

for Web-based

Courses

Course delivery
mode

Method(s)
Online

Class interaction
mode

Method(s):
Electronic Bulletin Boards

Percent Online

100% with No Required Campus Component

Provide a List of
Services Supplied by
Consortia Partners or
Outsourced
Organization

Global Campus is a supporting unit that provides assistance in course development and maintenance, technical support for both faculty and students, quality assurance, and compliance with interstate regulatory requirements to all online programs across the campus.

The only service outsourced is the online proctoring service. The University of Arkansas partners with ProctorU for online test proctoring services for some online exams.

Estimate Costs of the \$15,000
Program over the
First 3 Years

List Courses Taught
by Adjunct Faculty

Upload
Memorandum of
Understanding Forms
(if required)

Program Requirements and Description

Requirements

Environmental Resiliency Graduate MicroCertificate

The Environmental Resiliency Graduate MicroCertificate will be the first step in understanding resiliency. Students enter the program with a minimum of a BS/BA from an accredited university. Students must have a 3 point GPA, or better, and for non-native speakers must have language test scores acceptable for admission by the University of Arkansas graduate school standards.

ENRE 5123 FOUNDATIONS OF ENVIRONMENTAL RESILIENCY	Course ENRE 5123 FOUNDATIONS OF ENVIRONMENTAL RESILIENCY Not Found	3
Choose 2 of the 3 electives below:		6
ENRE 5223 YOU CANNOT MANAGE WHAT YOU DO NOT MEASURE	Course ENRE 5223 YOU	

CANNOT
MANAGE WHAT
YOU DO NOT
MEASURE Not
Found

ENRE 5323 SURVEY OF WATERSHED HYDROLOGY AND WATER RESOURCE MANAGEMENT

Course ENRE
5323 SURVEY OF
WATERSHED
HYDROLOGY AND
WATER
RESOURCE
MANAGEMENT
Not Found

ENRE 5423 BUSINESS AND THE ENVIRONMENT

Course ENRE
5423 BUSINESS
AND THE
ENVIRONMENT
Not Found

Total Hours

9

Program Costs

The costs of the program will be covered by tuition.

Library Resources

The University of Arkansas Libraries provides access to information resources that support the educational objectives and outcomes of the University of Arkansas, including the College of Engineering. The libraries house more than 2 million print volumes and over 5.5 million microforms. The annual reports can be found at <http://libinfo.uark.edu/info/annualreport.asp>. All electronic resources purchased by the libraries, including databases, are accessible from anywhere in the world on a 24 hour/7 days per week basis.

There are over 42,000 current journals and serials maintained by the libraries. The journal, book and conference publications, and other engineering societies are well represented in the libraries. Most of the current subscriptions for science and technology journals are in electronic format. The libraries also provide access to full text of newspapers, trade journals magazines, and interdisciplinary scholarly journal articles through Academic Search Complete and Business Source Complete (EbscoHost), ABI Inform (ProQuest), and Academic Universe (Lexis Nexis).

The Libraries maintain a subscription to appropriate portions of Knovel, which enriches access to interactive texts and data sources. Other texts and textbook materials may be purchased as e-books. ASTM, ASCE, and IEEE standards are fully accessible through online venues. A selected number of standards from organizations such as AASHTO, ASME, and ISO are available in the print collection.

Instructional

Facilities

The courses are 100% online and no new or amended facilities will be needed.

Faculty Resources

Global Campus is a supporting unit that provides assistance in course development and maintenance, technical support for both faculty and students, quality assurance, and compliance with interstate regulatory requirements to all online programs across the campus.

List Existing Certificate or Degree Programs

that Support the Proposed Program

Program(s)
ENREMS - Environmental Resiliency, Master of Science
ENREGC - Environmental Resiliency Graduate Certificate

Are Similar Programs available in the area?

No

Estimated Student 10

Demand for Program

Scheduled Program NA

Review Date

Program Goals and

Objectives

Program Goals and Objectives

The goals and objectives for the Environmental Resiliency Graduate MicroCertificate are:

Students should understand the foundational theories and frameworks of Ecological Resilience for the purposes of being able to be conversant with the ideas underlying the frameworks and understand which theoretical positions to use to access methods for case study application

Students should understand the foundational theories and frameworks of Socially Catalyzed Resilience for the purposes of being able to be conversant with the ideas underlying the frameworks and understand which theoretical positions to use to access methods for case study application

Students should understand the foundational theories and frameworks of Socio-Ecological Resilience for the purposes of being able to be conversant with the ideas underlying the frameworks and understand which theoretical positions to use to access methods for case study application

Learning Outcomes

Learning Outcomes

The learning outcomes for the Environmental Resiliency Sustainability Graduate MicroCertificate are:

Ecological Resilience

Learning Outcomes

Demonstrate awareness of key environmental issues and have the ability to communicate the principal problems the built environment causes to Earth's systems for the purposes of broad ecological literacy and working towards bringing the built environment to operate within planetary boundaries.

Understand the triple bottom line as a metric of sustainability, the five pillars of sustainability, and the 'infinity loop' in resilience frameworks.

Recognize the general applicability of laws of physics to sustainability and resilience (e.g., conservation of energy, conservation of mass, water cycle).

Define what an ecosystem is and relate its carrying capacity, and determine how resource use efficiency and conservation relate to carrying capacity. Be able to discuss reversible vs. permanent impacts on ecosystems.

Create a Personal Sustainability Plan (PSP), including how to apply sustainability principles to your field.

Define the concept of a carbon footprint and an ecological footprint using accepted theories, methods, and frameworks.

Socially Catalyzed Resilience

-Students will grow in their understanding of how sustainability and resiliency relate to their role, their work, and their communities.

-Students will learn to articulate what inspires them to create change that leads to a more resilient world.

-Students will learn techniques and skills for becoming mindful leaders of bold change.

-Students will learn the skills needed to identify when there is an opportunity to lead.

-Students will know how to authentically engage stakeholders so that they can successfully convene and mobilize people to a shared vision for change.

· Communicate the concept of uncertainty and its role in decision making

· Students will know the types of tools and frameworks available to them for measuring and managing their organization's impacts and how to access them.

· Students will be able to advocate for using measurement to reduce negative impacts associated with business practices.

-Conduct a survey of certifications and build proficiency in the core set of key performance indicators that are shared across the certification metrics.

Socio-Ecological Resilience

Define, explain, and apply the economic, environmental, and social components of sustainability and resilience.

Students will be able to present complex technical information, such as scientific data, clearly to multi-stakeholder groups

Student Learning Students Will Be Globally and Culturally Sensitive

Students will be able to apply functional knowledge gained in this program to solve real-world or simulated problems to it.

Description and Justification for this request

Description of request	Justification for request
This curriculum is necessary to build capacity in the citizenry and workforce. The curriculum and courses will help employees	Two workforce analyses were conducted by UA Global campus and both demonstrated a need for

Description of request	Justification for request
with professional growth in understanding, applying, and evaluating resiliency.	these types of courses. Especially since the government has recently announced a large influx of funds for sustainability and resiliency across business and governmental sectors. This group of classes will enhance our graduates qualifications for those jobs.

Upload attachments

Reviewer Comments

Alice Griffin (agriffin) (03/13/23 11:59 am): Changed course title of ENRE 5123 Foundations of Resiliency to Foundations of Environmental Resiliency to match course title submitted in Course Inventory Management.

Alice Griffin (agriffin) (03/13/23 12:04 pm): Checked sum hours box in program requirements field and then reformatted curriculum (indenting electives) to match the nine hours designated in the total hours field.

Alice Griffin (agriffin) (03/13/23 12:07 pm): Changed scheduled program review date to NA. As, program reviews are not conducted on MicroCertificates.

Alice Griffin (agriffin) (03/13/23 12:07 pm): All Courses in red are pending approval. Currently pending Graduate Council review.

Alice Griffin (agriffin) (03/13/23 12:08 pm): Changed program code from ENREGMC to ENREGM to match campus naming convention.

Alice Griffin (agriffin) (03/13/23 12:08 pm): Changed all uses of Micro Certificate to MicroCertificate for consistency with campus naming convention.

Alice Griffin (agriffin) (03/13/23 12:09 pm): Reformatted program requirements by moving the text above the course list and inserting a header for the program title with permission from submitter.

Alice Griffin (agriffin) (03/13/23 12:09 pm): Checked sum hours box in program requirements field and then reformatted curriculum (indenting electives) to match the nine hours designated in the total hours field.

Gina Daugherty (gdaugher) (03/15/23 7:23 am): Removed Undergraduate Council from workflow.

Key: 958