

New Program Proposal

Date Submitted: 02/08/23 3:25 pm

Viewing: **ENRCGC : Environmental Resiliency  
Certifications, Accounting and Metrics  
Graduate Certificate**

Last edit: 02/15/23 2:33 pm

Changes proposed by: jkvamme

Submitter:	User ID:	jkvamme	Phone:
479-575-6603			
Program Status	Active		
Academic Level	Graduate		
Type of proposal	Certificate		
Select a reason for this new program	Adding New Graduate Certificate (12-21 semester hours)--(LON)		
Effective Catalog Year	Spring 2024		
College/School Code	Graduate School and International Education (GRAD)		
Department Code	Environmental Dynamics (ENDY)		
Program Code	ENRCGC		
Degree	Graduate Certificate		
CIP Code			

In Workflow

- 1. GRAD Dean Initial
- 2. Provost Initial
- 3. Director of Curriculum Review and Program Assessment
- 4. Registrar Initial
- 5. Institutional Research
- 6. ENDY Chair
- 7. GRAD Dean
- 8. ARCH Dean
- 9. Global Campus
- 10. Provost Review
- 11. Graduate Council
- 12. Faculty Senate
- 13. Provost Final
- 14. Provost's Office-- Documentation sent to System Office
- 15. Higher Learning Commission
- 16. Board of Trustees
- 17. ADHE Final
- 18. Provost's Office-- Notification of Approval
- 19. Registrar Final
- 20. Catalog Editor Final

Approval Path

- 1. 02/08/23 12:37 pm  
Christa Hestekin (chesteki): Rollback to Initiator
- 2. 02/09/23 8:53 am  
Christa Hestekin

- (chesteki):  
Approved for GRAD  
Dean Initial
3. 02/09/23 10:55 am  
Jim Gigantino  
(jgiganti): Approved  
for Provost Initial
4. 02/14/23 2:25 pm  
Alice Griffin  
(agriffin): Approved  
for Director of  
Curriculum Review  
and Program  
Assessment
5. 02/15/23 2:33 pm  
Gina Daugherty  
(gdaugher):  
Approved for  
Registrar Initial
6. 02/15/23 2:37 pm  
Doug Miles  
(dmiles): Approved  
for Institutional  
Research
7. 02/15/23 2:44 pm  
Christa Hestekin  
(chesteki):  
Approved for ENDY  
Chair
8. 02/15/23 2:48 pm  
Christa Hestekin  
(chesteki):  
Approved for GRAD  
Dean
9. 03/15/23 4:42 pm  
Melinda Smith  
(melindas):  
Approved for ARCH  
Dean
10. 03/15/23 4:45 pm  
Suzanne Kenner

(skenner): Approved  
for Global Campus

11. 03/15/23 4:47 pm

Jim Gigantino

(jgiganti): Approved  
for Provost Review

12. 04/05/23 2:43 pm

Christa Hestekin

(chesteki):

Approved for  
Graduate Council

03.0101 - Natural Resources/Conservation, General.

#### Program Title

Environmental Resiliency Certifications, Accounting and Metrics Graduate Certificate

#### 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?

No

What are the total 15  
hours needed to  
complete the  
program?

## On-line/Web-based Information

#### Reason for offering

##### Web-based Program

The Environmental Resiliency Certifications, Accounting, and Metrics Graduate Certificate is targeting professionals in the workforce who wish to increasing their skills and understanding of current certifications, accounting and metrics used to guide organizations and businesses toward more resilient and

sustainable outcomes. These individuals need to be able to take meaningful courses at a time that works for their busy work/home schedules.

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      costs will be covered  
Program over the      by the tuition  
First 3 Years

List Courses Taught  
by Adjunct Faculty

Upload  
Memorandum of  
Understanding Forms  
(if required)

## Program Requirements and Description

## Requirements

The Environmental Resiliency Certifications, Accounting and Metrics Graduate Certificate will provide a foundation in resiliency and explore various types of accreditation standards for built environments, familiarize students with environmental accounting metrics and reporting frameworks.

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
ENRE 5223 CARBON ACCOUNTING	Course ENRE 5223 CARBON ACCOUNTING Not Found	3
ENRE 5333 ESG REPORTING	Course ENRE 5333 ESG REPORTING Not Found	3
ENRE 5433 BUILT ENVIRONMENT CERTIFICATION SYSTEMS	Course ENRE 5433 BUILT ENVIRONMENT CERTIFICATION SYSTEMS Not Found	3
Electives recommended:		3
ENRE 5133 SCIENCE COMMUNICATION FOR EXECUTIVES	Course ENRE 5133 SCIENCE COMMUNICATION FOR EXECUTIVES Not Found	
ENRE 5223 YOU CANNOT MANAGE WHAT YOU DO NOT MEASURE	Course ENRE 5223 YOU CANNOT MANAGE WHAT YOU DO NOT MEASURE Not Found	
Total Hours		15

## 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

#### Are Similar Programs available in the area?

No

Estimated Student      10  
Demand for Program

Scheduled Program      2030-2031  
Review Date

Program Goals and  
Objectives

#### Program Goals and Objectives

The goals and objectives for the Certifications, Accounting, and Metrics Graduate Certificate culminate in: Demonstrate 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.

Demonstrate an understanding of the impact of water in developed sites and buildings and strategies and frameworks for minimizing the ecological pollution footprint of water.

### Program Goals and Objectives

Demonstrate an understanding of the impact of energy in developed sites and buildings and strategies and frameworks for minimizing its carbon footprint and socio-environmental impact.

Demonstrate an understanding of how built environments impact air quality, health, well-being, and happiness.

Demonstrate knowledge of the building and development rating systems for the built environment and the process of using them, and be able to articulate their differences, strengths, and weaknesses.

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.

Comprehension and proficiency in ESG reporting landscape, including current trends for the evolution of external expectations for transparency and case study preparations of ESG reports.

Students will understand the basic principles of accounting for carbon emissions and offsets and know reporting platforms including CDP, SASB, GRI, and STBi

Students will understand mitigation, abatement, and offset strategies and gain familiarity with current and potential GHG capture, storage, and removal technologies.

Students will gain familiarity with, and understand key differences between, forest carbon standards (Verra, Gold Standard, American Carbon Registry, Climate Action Reserve, Plan Vivo, SD Vista, ICROA)

Students will learn how GHG data can provide insight into an organization's climate change response by comparing GHG emissions data and CSR reports of three different companies.

### Learning Outcomes

#### Learning Outcomes

Student will know the basic principles of accounting for carbon emissions and offsets

Understand mitigation, abatement, and offset strategies and gain familiarity with current and potential GHG capture, storage, and removal technologies.

Student will understand to the most popular GHG emissions accounting standards, frameworks, and reporting platforms (CDP, SASB, GRI, SBTi).

Student will have familiarity with, and understand key differences between, forest carbon standards (Verra,

### Learning Outcomes

Gold Standard, American Carbon Registry, Climate Action Reserve, Plan Vivo, SD Vista, ICROA)

Demonstrate 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.

Demonstrate an understanding of the impact of water in developed sites and buildings and strategies and frameworks for minimizing the ecological pollution footprint of water.

Demonstrate an understanding of the impact of energy in developed sites and buildings and strategies and frameworks for minimizing its carbon footprint and socio-environmental impact.

Demonstrate an understanding of the impact construction materials have and their role in sustainability, health, justice, ecological and socio-economic resilience.

Demonstrate an understanding of how built environments impact air quality, health, well-being, and happiness.

Demonstrate knowledge of the building and development rating systems for the built environment and the process of using them, and be able to articulate their differences, strengths, and weaknesses.

### Description and Justification for this request

Description of request	Justification for request
<p>These courses were suggested by members of the professional community. The courses offer expertise often lacking in employees and/or applicants and growth opportunities for early to mid-career employees.</p>	<p>Two workforce analyses were conducted by UA Global Campus to assess the need for this program. The types of jobs in both Workforce Analysis reports tended toward included: program and project managers, compliance officers, and analysts. Communication ranks at the top of employer desired skills (and underreported on applicant resumes). To be successful in these areas the employee needs to understand the basics of sustainability and resilience, what this means in organizations or businesses settings, and how to measure actions. Other skills that employers desire often not reported in resumes are data analysis, problem-solving, planning, and risk management. The Environmental Resiliency Certifications, Accounting and Metrics Graduate Certificate</p>



Description of request	Justification for request
	proposes to address these needs of employers, by providing the tools, a sound understanding of issues, and the methods used to evaluate, report, and suggest improvement.

## Upload attachments

[ENRCGC - New Graduate Certificate - Curriculum.docx](#)

[ENRCGC - New Graduate Certificate - Ltr of Notification.pdf](#)

## Reviewer Comments

**Christa Hestekin (chesteki) (02/08/23 12:37 pm):** Rollback: Please edit course entry.

**Alice Griffin (agriffin) (02/09/23 3:20 pm):** Revised submitter and inserted academic level.

**Alice Griffin (agriffin) (02/10/23 3:52 pm):** Inserted "Environmental Resiliency" into reason for offering web-based program for consistency. Also, inserted it into the first row of the program requirements description. Also revised Scheduled Program Review date to an academic year.

**Alice Griffin (agriffin) (02/10/23 3:53 pm):** Also entered Environmental Resiliency into the justification statement.

**Alice Griffin (agriffin) (02/10/23 3:54 pm):** ATTENTION REGISTRAR: Please remove the Undergraduate Council from the approval workflow.

**Alice Griffin (agriffin) (02/10/23 3:56 pm):** Swapped ENRE 5123 Foundations of Resiliency with ENRE 5123 Foundations of Environmental Resiliency to match course title submitted into Course Inventory Management.

**Alice Griffin (agriffin) (02/10/23 4:39 pm):** Replaced proposed course "Electives Recommended" with a comment to remove the red box course error.

**Alice Griffin (agriffin) (02/10/23 4:51 pm):** Inserted approval dates, corrected typos, removed degree code (ADHE will assign), inserted curriculum into the LON.

**Alice Griffin (agriffin) (02/14/23 2:23 pm):** Corrected course titles in program requirements with input from submitter.

**Alice Griffin (agriffin) (02/14/23 2:24 pm):** Inserted anticipated approval dates, revised interim titles, corrected typos in justification, and revised course titles with input from submitter.

**Gina Daugherty (gdaugher) (02/15/23 2:33 pm):** Removed Undergraduate Council from workflow.

Key: 950