

Date Submitted: 10/27/23 2:02 pm

Viewing: **GISTGC : Geospatial Technologies**

Graduate Certificate

Last approved: 10/27/22 5:28 pm

Last edit: 11/01/23 7:29 am

Changes proposed by: jatullis

Catalog Pages Using this Program

- [Geosciences \(GEOS\)](#)
- [Geospatial Technologies \(GIST\)](#)

Submitter: User ID: jatullis Phone: 479-575-3701 ~~575-8784~~

Program Status: Active

Academic Level: Graduate

Type of proposal: Certificate

Select a reason for this modification
Changing CIP Code of an Existing Certificate or Major--(LON)

Effective Catalog Year: Fall 2024

College/School Code: Fulbright College of Arts and Sciences (ARSC)

Department Code: Department of Geosciences (GEOS)

Program Code: GISTGC

Degree: Graduate Certificate

CIP Code:

In Workflow

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

Approval Path

1. 03/17/23 6:39 pm
David McNabb (dmcnabb):

- Approved for ARSC
Dean Initial
2. 03/20/23 8:55 am
Christa Hestekin
(chesteki):
Approved for GRAD
Dean Initial
3. 03/20/23 9:01 am
Jim Gigantino
(jgiganti): Approved
for Provost Initial
4. 03/20/23 9:58 am
Alice Griffin
(agriffin): Approved
for Director of
Curriculum Review
and Program
Assessment
5. 03/20/23 10:00 am
Gina Daugherty
(gdaugher):
Approved for
Registrar Initial
6. 03/20/23 11:02 am
Doug Miles
(dmiles): Approved
for Institutional
Research
7. 03/20/23 12:51 pm
Jason Tullis (jatullis):
Approved for GEOS
Chair
8. 04/06/23 2:32 pm
Ryan Cochran
(rcc003): Approved
for ARSC Curriculum
Committee
9. 04/07/23 12:50 am
David McNabb
(dmcnabb):

- Approved for ARSC
Dean
10. 04/07/23 8:20 am
Suzanne Kenner
(skenner): Approved
for Global Campus
 11. 04/07/23 10:24 am
Jim Gigantino
(jgiganti): Approved
for Provost Review
 12. 04/18/23 8:49 am
Christa Hestekin
(chesteki): Rollback
to GEOS Chair for
Graduate Council
 13. 08/16/23 10:47 am
Lisa Kulczak
(lkulcza): Rollback to
Initiator
 14. 10/27/23 2:13 pm
Christopher Liner
(liner): Approved for
ARSC Dean Initial
 15. 10/27/23 2:20 pm
Ed Bengtson
(egbengts):
Approved for GRAD
Dean Initial
 16. 10/29/23 7:17 pm
Jim Gigantino
(jgiganti): Approved
for Provost Initial
 17. 11/01/23 12:43 am
Lisa Kulczak
(lkulcza): Approved
for Director of
Curriculum Review
and Program
Assessment
 18. 11/01/23 7:29 am
Gina Daugherty

- (gdaughter):
Approved for
Registrar Initial
19. 11/01/23 12:46 pm
Doug Miles
(dmiles): Approved
for Institutional
Research
20. 11/06/23 2:37 pm
Jason Tullis (jatullis):
Approved for GEOS
Chair
21. 11/15/23 10:33 am
Nik Rowan
(nrgreen): Approved
for ARSC Curriculum
Committee
22. 11/15/23 11:23 am
Christopher Liner
(liner): Approved for
ARSC Dean
23. 11/15/23 11:34 am
Suzanne Kenner
(skenner): Approved
for Global Campus
24. 11/15/23 12:36 pm
Jim Gigantino
(jgiganti): Approved
for Provost Review
25. 11/17/23 3:39 pm
Ed Bengtson
(egbengts):
Approved for
Graduate Council

History

1. May 16, 2016 by
Jason Tullis (jatullis)
2. Oct 27, 2022 by
Jason Tullis (jatullis)

30.4401 ~~45-0702~~ - Geography and Environmental Studies. ~~Geographic Information Science and Cartography~~.

Program Title

Geospatial Technologies Graduate Certificate

Program Delivery

Method

Online/Web-based

Is this program interdisciplinary?

No

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

No

What are the total 18
hours needed to
complete the
program?

On-line/Web-based Information

Reason for offering

Web-based Program

A growing but important component in geospatial science and technology lends itself very well to Web-based instruction. Examples include introductory geospatial data structures and workflows with industry-standard software. This web-based certificate will complement existing degrees and educational activities requiring on-campus instruction.

Maximum Class Size 40

for Web-based
Courses

Course delivery
mode

Method(s)
Online

Class interaction
mode

Method(s):
E-mail

Percent Online

~~100%~~

100% with No Required Campus Component

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

Estimate Costs of the
Program over the
First 3 Years n/a

List Courses Taught
by Adjunct Faculty

Upload
Memorandum of
Understanding Forms
(if required)

Program Requirements and Description

Requirements

The Department of Geosciences offers an online Geospatial Technologies Graduate Certificate through University of Arkansas [Global Campus](#). This certificate is designed for working professionals who wish to develop technical skills in the emerging field of geospatial technologies. The certificate provides the technical instruction needed to be employed in the geosciences and collateral disciplines as one of the American Society of Photogrammetry and Remote Sensing's "Mapping Scientist" and as a "Certified Geographic Information Systems Professional" (GISP).

Requirements for a Geospatial Technologies Graduate Certificate

Requirements for admission: Graduate status; there are no disciplinary requirements.

Students must complete the following 18 credit hours, but it is possible to waive [GEOS 5043](#) and [GEOS 5073](#) (up to 6 credit hours) through successful completion of proficiency exams.

GEOS 5543	Geospatial Applications and Information Science	3
or GEOS 5733	Geospatial Data Science in Public Health	
GEOS 5043	Foundations of Geospatial Data Analysis	3
GEOS 5073	Geospatial Technologies Computational Toolkit	3
GEOS 5553	Spatial Analysis Using ArcGIS	3
GEOS 5083	Geospatial Data Mining	3
GEOS 5593	Introduction to Geodatabases	3
Total Hours		18

Are Similar Programs available in the area?

No

Estimated Student Demand for Program

The Department of Geosciences will be offering all of these courses online. We believe that a graduate enrollment of 10-15 students in the program is a conservative projection with the actual numbers likely to be substantially higher. The program's courses are also in demand by on-campus students who will have various options to utilize these in their existing programs of study.

Scheduled Program Review Date

2028-2029

Program Goals and Objectives

Program Goals and Objectives

Two primary sources define the skills and technical content of educational programs in the geospatial area. These are the Department of Labor's Geospatial Competency Model (2011) and the University Consortium for Geographic Information Science's (UCGIS) Body of Knowledge document (2012). The Geospatial Technologies Graduate Certificate is designed to provide the skills needed to effectively execute the responsibilities of the "mapping scientist" and advanced management and technical leadership employment. The department of Geosciences began offering the MS in Geography in Fall 2015 and this certificate compliments that program.

Learning Outcomes

Learning Outcomes

Students will be prepared to effectively perform the duties of the Mapping Scientist as defined by the American Society of Photogrammetry and Remote Sensing which defines the position as "[a] professional involved in

Learning Outcomes

GIS/LIS systems design and/or systems application of data base management and computer programs that allow for the utilization of spatially referenced data bases for solving user analysis requirements. They are responsible for the integration of data needs and the development of correspondence between and the utilization of various spatial systems of often-different generic origins that are used to solve requirements.” In addition the program prepares the student to become a Certified Geographic Information Systems Professional (GISP) as defined by the GIS Certification Institute. This certification is particularly valuable for individuals who anticipate employment in the public sector or in firms that provide services to the public sector.

Description and justification of the request

Description of specific change	Justification for this change
<p>Changing CIP code from 45.0702 Geographic Information Science and Cartography to 30.4401 Geography and Environmental Studies.</p>	<p>Effective 2020, the National Center for Education Statistics recently established a new Classification of Instructional Programs (CIP) code for "Geography and Environmental Studies" which better captures the geography teaching, research and service strengths developed in recent decades at University of Arkansas. For example, the new CIP code recognizes "climate science, sustainability, environmental science and policy, research methods, geographic information systems (GIS), human geography, physical geography, remote sensing, and public policy". The online geospatial certificates were previously coded as "Geographic Information Science and Cartography" which certainly captured a large part of what the certificates focus on. However, the new geography code which encompasses technical geography makes the most sense in terms of a) providing a strong geography and environmental studies context for the certificates (which simply reflects the reality of these studies), and b) meet ADHE viability requirements by combining the certificate with the bachelor's and master's degrees in geography.</p>

Upload attachments

[lon_gistgc_cip.pdf](#)

[GISTGC - CIP Code Change - Ltr of Notification_Rev_BOT.pdf](#)

Reviewer Comments

Alice Griffin (agriffin) (03/20/23 9:57 am): Inserted anticipated approval dates into the LON and renamed the document to match BOT naming convention.

Alice Griffin (agriffin) (03/20/23 9:57 am): ATTENTION REGISTRAR: Please remove the Undergraduate Council from the approval workflow.

Gina Daugherty (gdaugher) (03/20/23 9:59 am): Removed Undergraduate Council from workflow.

Christa Hestekin (chesteki) (04/18/23 8:49 am): Rollback: Per request of program

Lisa Kulczak (lkulcza) (08/16/23 10:47 am): Rollback: Per request from the chair; revisiting the proposed CIP code for this certificate.

Lisa Kulczak (lkulcza) (11/01/23 12:42 am): Uploaded revised LON with adjusted approval dates. ATTENTION REGISTRAR: Please remove Undergraduate Council from the workflow.

Gina Daugherty (gdaugher) (11/01/23 7:29 am): Removed Undergraduate Council from workflow.