

Date Submitted: 09/13/24 10:49 am

Viewing: **GEOGBS-TEGE ~~GEOGBA-CTRS~~:**

Geography: Technical Geography Concentration ~~Cartography/Remote Sensing GIS~~ Concentration

Last approved: 03/20/24 1:14 pm

Last edit: 11/14/24 7:57 pm

Changes proposed by: nrgreen

Catalog Pages Using this Program

[Geography_\(GEOG\)](#)

Submitter:	User ID:	nrgreen yongko	Phone:
		3429 575-5252	
Program Status	Active		
Academic Level	Undergraduate		
Type of proposal	Concentration Major/Field of Study		
Select a reason for this modification			
Reconfiguring an Existing Degree--(LON)			
Effective Catalog Year	Fall 2025		
College/School Code	Fulbright College of Arts and Sciences (ARSC)		
Department Code	Department of Geosciences (GEOS)		
Program Code	GEOGBS-TEGE GEOGBA-CTRS		
Degree	Bachelor of Science Arts		

In Workflow

1. ARSC Dean Initial
2. Provost Initial
3. Director of Curriculum Review and Program Assessment
4. Registrar Initial
5. Institutional Research
6. GEOS Chair
7. ARSC Curriculum Committee
8. ARSC Dean
9. Global Campus
10. Provost Review
11. Undergraduate 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. 09/13/24 11:45 am Christopher Schulte (cschulte):

CIP Code

- Approved for ARSC
Dean Initial
2. 09/13/24 11:50 am
Jim Gigantino
(jgiganti): Approved
for Provost Initial
 3. 10/29/24 11:29 am
Lisa Kulczak
(lkulcza): Approved
for Director of
Curriculum Review
and Program
Assessment
 4. 10/30/24 2:07 pm
Gina Daugherty
(gdaugher):
Approved for
Registrar Initial
 5. 10/31/24 10:51 am
Doug Miles
(dmiles): Approved
for Institutional
Research
 6. 10/31/24 12:31 pm
Jason Tullis (jatullis):
Approved for GEOS
Chair
 7. 11/06/24 3:27 pm
Nik Rowan
(nrgreen): Approved
for ARSC Curriculum
Committee
 8. 11/07/24 8:24 am
Christopher Schulte
(cschulte):
Approved for ARSC
Dean
 9. 11/07/24 8:26 am
Suzanne Kenner
(skenner): Approved
for Global Campus

10. 11/07/24 8:49 am
Jim Gigantino
(jgiganti): Approved
for Provost Review
11. 11/23/24 11:53 am
Lisa Kulczak
(lkulcza): Approved
for Undergraduate
Council

History

1. May 21, 2019 by
Lisa Kulczak (lkulcza)
2. May 27, 2020 by
Lisa Kulczak (lkulcza)
3. May 19, 2022 by
Gina Daugherty
(gdaugher)
4. Apr 14, 2023 by
Charlie Alison
(calison)
5. Mar 20, 2024 by
Gina Daugherty
(gdaugher)

30.4401 ~~45.0701~~ - Geography and Environmental Studies. ~~Geography:~~

Program Title

Geography: Technical Geography Concentration ~~Cartography/Remote Sensing GIS Concentration~~

Program Delivery

Method

On Campus

Is this program interdisciplinary between two or more colleges or schools?

No

Do the proposed changes impact any specific course(s) from another college or school?

No

What are the total hours needed to complete the program? 120

Program Requirements and Description

Requirements

Requirements for a Major in Geography with Technical Geography ~~Cartography/Remote Sensing~~ Concentration:

Required Courses

Take 12 credit hours chosen from below:

12

GEOS 30103 Foundations of Geospatial Data Analysis

GEOS 30203 Introduction to Cartography

GEOS 31003 Geospatial Technologies Computational Toolkit

GEOS 32103 Principles of Remote Sensing

~~GEOS/ANTH 35403~~ ~~Geospatial Applications and Information Science~~

~~3~~

Elective Courses

Select three of the following:

9

GEOS 35503 Spatial Analysis Using ArcGIS

GEOS 35603 Geospatial Data Mining

GEOS 35903 Introduction to Geodatabases

GEOS 3600V Undergraduate Special Problems

GEOS 37303 Geospatial Data Science in Public Health

GEOS 399HV Honors Course

GEOS 4100V Special Problems in Geosciences

GEOS 41303 Radar Remote Sensing

GEOS 42603 Geospatial Data Science - Sources and Characteristics

GEOS 45203 Cartographic Design and Production

GEOS 45503 Introduction to Raster GIS

GEOS 45803 Enterprise and Multiuser GIS

GEOS 45903 Introduction to Global Positioning Systems and Global Navigation Satellite Systems

~~STAT 30043~~ ~~Statistical Methods (or other approved statistics course)~~

~~CVEG 20503~~ ~~Surveying Systems (or other approved surveying course)~~

GEOS 46503 GIS Analysis and Modeling

[GEOS 47903](#)[Geospatial Unmanned Aircraft Systems](#)[GEOS 59703](#)[Seminar in GIScience](#)Take 6 credit hours of any additional GEOS courses numbered 30000 level or higher6

Total Hours

18

This program gives students an opportunity to develop expertise in (1) cartography, map design and computer-assisted map production, (2) remote sensing and image interpretation, including photographic systems, sensor systems, and digital image processing, and (3) geographic information systems, including data sources, analytical techniques, and hardware/software systems. To complete the concentration, a student is required to fulfill certain course requirements:

8-Semester Plan

Eight-Semester Degree Plan for a Bachelor of Science in Geography, Technical Geography Concentration

Students enrolling in the eight-semester degree plan should review the Eight-Semester Degree Completion Policy. State minimum core requirements may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute with general electives in consultation with their academic advisor.

First Year	Units
	FallSpring
<u>ENGL 10103 Composition I (ACTS Equivalency = ENGL 1013) (Satisfies General Education Outcome 1.1)¹</u>	<u>3</u> =
<u>Choose 1 (Satisfies General Education Outcome 2.1):¹</u>	<u>3</u> =
<u>MATH 11103 Quantitative Reasoning (ACTS Equivalency = MATH 1113)</u>	
<u>MATH 11003 College Algebra (ACTS Equivalency = MATH 1103)</u>	
<u>or any MATH course numbered higher than MATH 11003</u>	
<u>Choose 1: (meets 1 of 3 Social Science State minimum core requirements)¹</u>	<u>3</u> =
<u>GEOG 11103 Human Geography (ACTS Equivalency = GEOG 1113)</u>	
<u>GEOG 21003 World Regional Geography (ACTS Equivalency = GEOG 2103)</u>	
<u>General Electives¹</u>	<u>4</u> =
<u>ENGL 10203 Composition II (ACTS Equivalency = ENGL 1023) ((Satisfies General Education Outcome 1.2)</u>	<u>3</u>
<u>)¹</u>	
<u>Choose 1: (Satisfies General Education Outcome 3.4)¹</u>	= <u>4</u>
<u>GEOL 11103 Physical Geology (ACTS Equivalency = GEOL 1114 Lecture)</u>	= =
<u>& GEOL 11101 Physical Geology Laboratory (ACTS Equivalency = GEOL 1114 Lab)</u>	
<u>GEOL 11203 Earth Science (ACTS Equivalency = GEOL 1124 Lecture)</u>	= =
<u>& GEOL 11201 Earth Science Laboratory (ACTS Equivalency = GEOL 1124 Lab)</u>	
<u>GEOS 11504 Introduction to Geology for Science Majors</u>	
<u>Social Science State Minimum Core (Satisfies General Education Outcome 3.3)¹</u>	= <u>3</u>
<u>Social Science State Minimum Core (Satisfies General Education Outcome 5.1)¹</u>	= <u>3</u>
<u>General Electives</u>	= <u>3</u>
Year Total:	13 16
Second Year	Units
	FallSpring
<u>GEOG Concentration Course</u>	<u>3</u> =
<u>Science State Minimum Core with corequisite lab (Satisfies General Education Outcome 3.4)¹</u>	<u>4</u> =
<u>Humanities State Minimum Core (Satisfies General Education Outcomes 3.2 and 4.1)¹</u>	<u>3</u> =
<u>General Electives¹</u>	<u>6</u> =
<u>GEOG Concentration Course</u>	= <u>3</u>
<u>U.S. History or Government State Minimum Core (Satisfies General Education Outcome 4.2)¹</u>	= <u>3</u>
<u>Fine Arts State Minimum Core (Satisfies General Education Outcome 3.1)¹</u>	= <u>3</u>
<u>General Electives¹</u>	= <u>6</u>
Year Total:	16 15

Third Year	Units
	FallSpring
<u>GEOS 35403 Geospatial Applications and Information Science</u>	<u>3</u> =
<u>GEOG Concentration Course</u>	<u>3</u> =
<u>Any UA-Fayetteville credit hours numbered at the 30000-level or higher</u>	<u>3</u> =
<u>General Electives¹</u>	<u>6</u> =
<u>GEOS 40903 History and Philosophy of Geography (Satisfies General Education Outcome 1.2 and 6.1)¹</u>	= <u>3</u>
<u>GEOG Concentration Course</u>	= <u>3</u>
<u>Any credit hours numbered at the 30000-level or higher, or any 20000-level credit hours that have a course prerequisite</u>	= <u>3</u>
<u>General Electives¹</u>	= <u>6</u>
Year Total:	15 15

Fourth Year	Units
	FallSpring
<u>GEOG Concentration Course</u>	<u>3</u> =
<u>Any credit hours numbered at the 30000-level or higher, or any 20000-level credit hours that have a course prerequisite</u>	<u>3</u> =
<u>GENERAL ELECTIVES</u> <u>Course GENERAL ELECTIVES Not Found¹</u>	<u>9</u> =
<u>GEOS 30003</u> <u>Course GEOS 30003 Not Found</u> (Or General Elective if took GEOS 35403 in a previous summer)	= <u>3</u>
<u>GEOG Concentration Course</u>	= <u>3</u>
<u>Any credit hours numbered at the 30000-level or higher, or any 20000-level credit hours that have a course prerequisite</u>	= <u>4</u>
<u>General Electives (as needed to reach 120)¹</u>	= <u>5</u>
Year Total:	15 15

Total Units in Sequence: 120

¹
[Students must complete the State Minimum Core and the requirements of their major\(s\) as outlined in the Catalog of Studies. These courses also fulfill many, if not all, of the General Education Requirements. Please visit these pages in the links provided and consult with your academic advisor when making course selections to fulfill these requirements.](#)

Are Similar Programs available in the area?

No

Estimated Student Demand for Program [15/YEAR](#) na

Scheduled Program Review Date [2028-2029](#) na

Program Goals and Objectives

Program Goals and Objectives

The Bachelor's of Science degree in Geography gives students the opportunity to learn about the human and physical elements of our world while developing the technical skills to conduct robust scientific analysis. na

Learning Outcomes

Learning Outcomes

After graduating with a BS Geography degree, students will have an understanding of the human and physical processes shaping the world today, while also gaining expertise in how to conduct such work in a scientifically verifiable and testable way.

na

Description and justification of the request

Description of specific change	Justification for this change
<p>Complete reorganization of the degree from a BA to a BS. See attached before and after document for detailed changes.</p> <p>General change summary: Reorganized Cartography and Remote sensing concentration in to the new Technical Geography concentration.</p> <p>General change summary:</p> <ol style="list-style-type: none"> 1. Created a common core that all Geography majors will complete, which includes a capstone course that meets GELO 6.1. 2. Creation of 3 equally sized concentrations that offer students the opportunity to specialize 3. Set the degree up in size to easily pair with other majors/degrees on campus due to having 38 hrs of general electives. (additional information about the changing size of the major: The Geography BS major will be focused on student training in geography and the geosciences more broadly. This emphasis has resulted in the reduction of redundant courses in the major (e.g., rather than both Human Geography and World Regional Geography, students will take only one) and the elimination of the world language requirement in line with other BS degrees in Fulbright College.) 	<p>LON information: The Geosciences department is proposing changing the undergraduate degree in Geography from a Bachelors of Arts to a Bachelors of Science. There are three primary motivations for doing so. First, this change helps to consolidate the place of the geography degree at Arkansas in the larger universe of STEM fields. Geography is recognized as a discipline that combines the social and physical sciences through the use of spatial analysis and techniques. Second, transitioning to a BS degree will bring our program in line with proximate peer institutions, including the University of Kansas, the University of Oklahoma, and Louisiana State University, which all offer BS Geography degrees. Third, the accompanying curriculum revision ensures that undergraduate geography majors have a capstone course in the major and also a clear path to graduation with three newly established concentrations (in human geography, technical geography, and general geography) that allow students to focus their interest across the diverse discipline that is geography. Other proximate peer institutions, including the University of Texas-Austin, also offer concentrations within</p>

Description of specific change	Justification for this change
4. Updated program goals/objectives and Learning outcomes to reflect the changes to the degree.	geography to allow undergraduate students to focus their studies.

Upload attachments

[LON GEOG.pdf](#)

[GEOGBA to GEOGBS - before and after.docx](#)

[GEOGBS - Reconfiguration - Ltr of Notification_Rev_BOT.pdf](#)

Reviewer Comments

Lisa Kulczak (lkulcza) (10/29/24 10:08 am): Uploaded a revised version of the "before and after" document. ATTENTION REGISTRAR: This proposal will require off-campus approval; please adjust the workflow accordingly.

Lisa Kulczak (lkulcza) (10/29/24 11:20 am): Uploaded revised LON with dates inserted.

Lisa Kulczak (lkulcza) (10/29/24 11:29 am): GEOS 30003 currently in approval process with fall 2025 effective date.

Key: 42