

Program Change Request

Date Submitted: 01/30/18 10:02 am

Viewing: **CERT-CG56 : Geographic Information Science - Certificate**

Last edit: 06/15/18 9:27 am

Changes proposed by: mrydeen

Catalog Pages Using this Program [Geographic Information Science - Certificate](#)

Faculty Senate Number

Contact(s)

Name	E-mail	Phone
Madysen Rydeen	mrydeen@tamu.edu	979-862-6470

Academic level Graduate
Effective Term 2019-2020
Department Ecosystem Science & Mgmt
College Agriculture & Life Sciences
Program type Certificate
With a certificate in Geographic Information Science
Catalog Program Title Geographic Information Science - Certificate
CIP and Fund code **450702**

Rationale for Proposal
When the Graduate Certificate in Geographic Information Science was established in 2003, the number of courses available was limited and there was some overlap in the material covered. In the intervening years, several new GIS courses have been developed and existing courses have evolved. In order to provide students with the greatest flexibility for completing the GIS certificate requirements and the best opportunity for growing and solidifying their knowledge and skills, the approved course options at the introductory, intermediate and specialized levels must reflect the variety of classes now available.
The proposed changes to the GIS certificate program do not alter the total course/credit or GPA requirements to earn the certificate; students will still need to complete 4 courses (12 credits) and maintain a 3.0 GPA for all applicable course work. The changes simply increase the number of courses at each level from which students can choose.

Program hours **12**
Is this program eligible for financial aid?
Will program hours change (increase/decrease) due to the proposed curriculum changes? **No**
Certificate type **Stand-alone**

- ### In Workflow
1. ESSM Reviewer GR
 2. ESSM Department Head
 3. Curricular Services Review
 4. AG Committee Preparer GR
 5. AG Committee Chair GR
 6. AG College Dean GR
 7. GC Preparer
 8. GC Chair
 9. Faculty Senate Preparer
 10. Faculty Senate
 11. Provost II
 12. President
 13. Curricular Services

- ### Approval Path
1. 01/30/18 10:12 am Georgianne Moore (gwmoore): Approved for ESSM Reviewer GR
 2. 01/30/18 10:13 am Georgianne Moore (gwmoore): Approved for ESSM Department Head
 3. 01/30/18 10:34 am Angel Mario Carrizales (carri1214): Approved for Curricular Services Review
 4. 01/30/18 10:40 am Dawn Kerstetter (dkerstetter): Approved for AG Committee Preparer GR
 5. 02/22/18 9:06 am David W. Reed (dwreed): Approved for AG Committee Chair GR
 6. 02/22/18 9:07 am David W. Reed (dwreed): Approved for AG College Dean GR
 7. 03/26/18 8:58 am Meagan Kelly (meagankelly): Approved for GC Preparer
 8. 04/05/18 4:22 pm LaRhesa Johnson (lrjohnson): Approved for GC Chair
 9. 04/11/18 3:38 pm Jan Helgoth (helgoth):

Program delivery mode

Synchronous/Asynchronous

On-campus

Distance Education/Internet

% of Program a student **80%**

can take off-campus or
through Distance
Education

Approved for Faculty
Senate Preparer
10. 05/15/18 3:51 pm
Janet Gonzales (janet-
gonzales): Approved for
Faculty Senate
11. 06/15/18 9:27 am
Janet Gonzales (janet-
gonzales): Rollback to
Faculty Senate for
Provost II

Catalog Program Requirements

Code	Title	Semester Credit Hours
Introductory Level		
Select one of the following:		3
ESSM 651	Geographic Information System for Resource Management	
GEOG 660	Applications in GIS	
MARS 625	GIS Use in Coastal Resources	
PLAN 625	Geographical Information Systems in Landscape and Urban Planning	
Intermediate Level		
Two of three are required:		6
ESSM 652	Advanced Topics in Geographic Information Systems	
or BAEN 652	or Advanced Topics in Geographic Information Systems	
GEOG 665	GIS-Based Spatial Analysis and Modeling	
PLAN 626	Advanced GIS in Landscape Architecture and Urban Planning	
Specialized GIS Courses		
Select one of the following:		3
CVEN 658	Civil Engineering Applications of GIS	
ENTO 625/GEOG 625	Landscape Ecology	
or GEOG 625/ENTO 625	or Landscape Ecology	
ESSM 660	Landscape Analysis and Modeling	
ESSM 663/SCSC 663	Applied Spatial Statistics	
ESSM 665	Computer Programming for Natural Resources Applications	
GEOG 662	GIS in Land and Property Management	
GEOG 676	GIS Programming	
GEOG 678	WebGIS	
MARS 626	Advanced GIS for Coastal Systems	
PLAN 612	Transportation in City Planning	
Total Semester Credit Hours		12

Additional
Requirements

Additional information	The Graduate Certificate in Geographic Information Science (GIS) is jointly administered by the Ecosystem Science and Management and Geography departments.
Required Proposal Forms	GIS_certificate_Info_CY19.docx Civil Engineering Letter of Support.pdf GIS support.pdf MARS GIS support.pdf GIS Geography Certificate Support.pdf GIS_Cert_Degree_Eval.pdf
Reviewer Comments	Georgianne Moore (gwmoore) (01/25/18 1:42 pm): Per Dr. Reed recommendations, program delivery mode now includes "asynchronous/synchronous" and the % time of campus is maxed out at 100%. Angel Mario Carrizales (carri1214) (01/29/18 4:48 pm): Effective term changed to 2019-2020. The 2018-2019 term deadline has passed. Angel Mario Carrizales (carri1214) (01/29/18 4:54 pm): Rollback: Please attached an edited degree evaluation that matches the proposed catalog edits. Angel Mario Carrizales (carri1214) (01/30/18 10:33 am): Concern addressed. Janet Gonzales (janet-gonzales) (06/15/18 9:27 am): Rollback: Glitch in CARS, was not "approved" to be moved to Provost II.

October 27, 2017

Dr. David Cairns
Department Head
Department of Geography
College of Geosciences

Dear Dr. Cairns,

The Zachry Department of Civil Engineering supports the changes to the GIS certificate offered through the Department of Geology in the College of Geosciences.

Our department faculty are prepared to support the teaching of the revised degree and are in support of the changes.

Respectfully,

A handwritten signature in black ink, appearing to read "R. Autenrieth".

Robin L. Autenrieth, Ph.D., P.E.
Department Head
A.P. & Florence Wiley Professor III

November 7, 2017

MEMORANDUM

TO: Dr. David M. Cairns
Professor and Department Head
Department of Geography

Dr. Andrew Klein
Professor
Department of Geography

FROM: Dr. Kathleen Kavanagh *Kathleen Kavanagh*
Department Head
Ecosystem Science and Management

SUBJECT: GIS Certificate Revision Approval

The Spatial Sciences Faculty and the Department of Ecosystem Science and Management supports the suggested revisions on the Geographic Information Science (GIS) certificate. The addition of a variety of course options will assist students in completing the certificate in a timely manner and gathering a depth and breadth of knowledge in the field of GIS.

Madysen Rydeen, graduate program academic advisor in Ecosystem Science and Management, will continue her responsibility as staff administrator of the GIS certificate. Dr. Raghavan Srinivasan will serve as the Ecosystem Science and Management faculty coordinator for the GIS Certificate.

Feel free to contact me if you need any additional information.

[Print](#)

Detail Requirements

Madysen K. Rydeen
Jan 30, 2018 09:50 am

Viewing: [Degree Evaluation](#) (DEGEVAL, , [Email](#))
[Change Student](#)

Information for Degree Evaluation

This is NOT an official evaluation.

Print Instructions

Program Evaluation

Limitation: Students must maintain a minimum 3.0 Program GPA for graduation purposes.

Program :	Cert-Geog Info Sci	Catalog Term :	Fall 2017 - College Station
Campus :	College Station	Evaluation Term :	Spring 2018 - College Station
College :	Agriculture & Life Sciences	Expected Graduation Date :	
Degree :	GR Certificate	Request Number :	210
Level :	Graduate	Results as of :	Jan 30, 2018
Majors :	Geographic Information Sci	Minors :	
Departments :	Ecosystem Science & Mgmt	Concentrations :	

	Met	Credits		Courses	
		Required	Used	Required	Used
Total Required :	No	12.000	0.000		0
Program GPA :	No	3.00	.00		
Overall GPA :	Yes	.00	.00		
Other Course Information					
Transfer :			0.000		0

This is NOT an official evaluation.

Area Courses Counting in GPR - Not Met

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course Title	Attribute	Credits	Grade	Source
No	A.		Additional	Unused											
													Total Credits and GPA	0.000	.00

unofficial evaluation

Area Certificate Coursework (12.000 credits) - Not Met

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course Title	Attribute	Credits	Grade	Source
No	A.		Introductory	Level	3hrs										
													ADD PLAN 625, MARS 625		
No	AND	B.	Intermediate	Level	6hrs										
													SELECT FROM TAKE ESSM 652 OR BAEN 652, AND GEOG 665, ADD PLAN 626		
No	AND	C.	Specialized	GIS	Course	3hrs									
													SELECT FROM ENTO 625; ESSM 660; PLAN 625. ADD CUEN 658, ESSM 663, ESSM 665, GEOG 662, GEOG 675, GEOG 676, GEOG 678, MARS 626, PLAN 612		
													Total Credits and GPA	0.000	.00

unofficial evaluation

REMOVE PLAN 625

GRADUATE CERTIFICATE IN GEOGRAPHIC INFORMATION SCIENCE (GIS)

GIS technologies are applied to wide-ranging fields with interests in spatially distributed information such as transportation, environmental/resource management, marketing, facility management, healthcare delivery, agriculture and planning. In addition, the synergistic linkages between GIS and Remote Sensing (RS) technologies are increasing. The need for qualified individuals in these fields is growing rapidly. The GIS certificate program has been designed to meet this demand.

The Office of the President has approved this program, and it will appear on the official Texas A&M University transcript. There will not be a paper certificate. This certificate is administered through the department of Ecosystem Science and Management and taught jointly with Geography.

Certificate guidelines

- Students must be admitted to Texas A&M University as a G6 (non-degree seeking), G7 (master's) or G8 (doctoral) student. (See the TAMU admissions website at: admissions.tamu.edu.)
- The program consists of 12 credit hours, including three foundation courses and one elective. Students must choose courses from the approved list on page 2. Students who have previously taken an introductory GIS course can petition to substitute one of the specialized GIS courses.
- Students must maintain a 3.0 GPA for all applicable course work.
- Students should apply for the certificate in the first semester of beginning the GIS Certificate (Exceptions may apply).
- Classes taken for the RS certificate cannot be used in lieu of courses required for GIS certificate or vice versa.
- Substitutions/exceptions: Must be submitted to the GIS/RS Graduate Certificate Committee for consideration and acceptance. The letter of petition must include:
 - GIS or RS classes taken or in progress;
 - a syllabus for each course to be considered for substitution;
 - the corresponding required course for which substitution is requested; and
 - detailed work experience in applicable field

For a petition to be considered, it must be completed and returned to Madysen Rydeen, mrydeen@tamu.edu, once the course has been completed, prior to the graduation semester.

Certificate application

To add the certificate to your curriculum, you must contact Madysen Rydeen, mrydeen@tamu.edu, 979-862-6470. She will give instructions on how to add the certificate to your curriculum. This should occur as early as the first semester you take a GIS course, and as late as the 5th class day of the semester in which you plan to graduate.

If you have any questions, please contact:

- Madysen Rydeen, ESSM graduate programs advisor, at 979.862.6470 or mrydeen@tamu.edu,

Other points of contact (for course specific information, such as substitutions):

- Dr. Srinivasan, The Spatial Science Lab (SSL) Director in the Department of Ecosystem Science & Management at r-srinivasan@tamu.edu, or
- The GIS&T Director in the Department of Geography at 979.845.5291 or klein@tamu.edu.

Approved course options

Introductory level (one of the following is required)3 hours

- ESSM 651/BAEN 651 – Geographic Information Systems
- GEOG 660 – Applications in GIS
- PLAN 625 – Introductory GIS in Landscape and Urban Planning
- MARS 625 GIS Use in Coastal Resource

Intermediate level (two of three are required)6 hours

- ESSM 652/BAEN 652 – Advanced Topics in Geographic Information Systems
- GEOG 665 – GIS-based Spatial Analysis and Modeling
- PLAN 626 – Advanced GIS in Landscape and Urban Planning

Specialized GIS courses (one of the following is required)3 hours

- CVEN 658 - Civil Engineering Applications of GIS
- ENTO 625/GEOG 625 – Landscape Ecology
- ESSM 660 – Landscape Analysis and Modeling
- ESSM 663 – Applied Spatial Statistics
- ESSM 665 – Computer Programming for Natural Resource Applications
- GEOG 662 - GIS in Land & Property Management
- GEOG 676 – GIS Programming
- GEOG 678 – WebGIS
- MARS 626 – Advanced GIS for Coastal Systems
- PLAN 612 – Introduction to Transportation Planning

COLLEGE OF GEOSCIENCES

DEPARTMENT OF GEOGRAPHY

David M. Cairns
Professor and Department Head



7 December 2017

Dr. Kathleen Kavanagh
Department of Ecosystem Science and Management

Dear Dr. Kavanagh,

The Department of Geography supports the changes to the GIS certificate offered jointly through the Department of Ecosystem Science and Management and the Department of Geography.

Our department faculty are prepared to support the teaching of the revised certificate and are in support of the changes.

Sincerely,

A handwritten signature in blue ink that reads 'David M. Cairns'.

David M. Cairns
Department Head

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