Program Assessment Report

2022 - 2023

CAGS - Geographic Information Science (BA)

Program General Information

Mission

Our mission is to conduct innovative and socially relevant research; to expand students' intellectual vistas via critical perspectives and valuable tools and skills; and to catalyze sustainable human-natural systems.

College

Atmospheric & Geographic Sciences

Department/School/Division

DGES

Assessment Liaison

Laurel Smith

Fundamental Comprehension

Student Learning Outcome (SLO)
Demonstrate comprehension of fundamental concepts and practices of Geographic Information Science and advances in Geospatial Information Science and Technology.

Outcome Status
Active

Direct - Project

Assessment Method Description
Research proposal for Research Methods and Professional Development class

Performance Target
For each of the direct assessments, we use the same departmental scale, which is: One (1) is does not meet expectations, two (2) is meets expectations, and three (3) is exceeds expectations. The performance target is for 85% of the students to meet or exceed expectations.

Assessment Results and Use of Results

Reporting Period
2022 - 2023

Assessment Results Entry Date
09/28/2023

Assessment Results
During AY 22-23, three GIS BA students took GEOG 4893 "Research Methods and Professional Development" and each of them successfully prepared a research proposal that met expectations, with two earning an A and the third earning a B. These results exceed our expectation.

Results Status
Target Met

Number of Students Assessed
3

<u>USE OF ASSESSMENT RESULTS</u>

Curriculum
Our department has an ad hoc committee reviewing our GIS courses to determine, and if need be, undertake curriculum revision to better serve our students.

Other
The proposal for the Research Methods and Professional Development class is used to determine the student's ability to produce a valid capstone project. We monitor this result carefully to assist those students that might need additional support during the capstone class.

Direct - Project

Assessment Method Description
Research Paper for Proseminar class

Performance Target
For each of the direct assessments, we use the same departmental scale, which is: One (1) is does not meet expectations, two (2) is meets expectations, and three (3) is exceeds expectations. The performance target is for 85% of the students to meet or exceed expectations.

Assessment Results and Use of Results

Reporting Period
2022 - 2023

Assessment Results Entry Date
09/28/2023

Assessment Results
Six of our GIS BA students took GEOG 4953 and all of them prepared a successful research paper, with four earning an A and two earning a B. These results exceed our expectations.

Results Status
Target Met

Number of Students Assessed
6

USE OF ASSESSMENT RESULTS

Curriculum
Our department has an ad hoc committee reviewing our GIS courses to determine, and if need be, undertake curriculum revision to better serve our students.

Other
This is the final assessment that we use to determine if students have completed all materials needed for the degree, and we will continue to monitor student performance.

Direct - Examination

Assessment Method Description
Final exam for Fundamentals of GIS class

Performance Target
For each of the direct assessments, we use the same departmental scale, which is: One (1) is does not meet expectations, two (2) is meets expectations, and three (3) is exceeds expectations. The performance target is for 85% of the students to meet or exceed expectations.

Assessment Results and Use of Results

Reporting Period
2022 - 2023

Assessment Results Entry Date
09/28/2023

Assessment Results
Both of the GIS BA students who took the Fundamentals of GIS class during this reporting period met expectations on the final exam, with both of them earning a B. These results exceed our expectations.

Results Status
Target Met

Number of Students Assessed
2

USE OF ASSESSMENT RESULTS

Curriculum
Our department has an ad hoc committee reviewing our GIS courses to determine, and if need be, undertake curriculum revision to better serve our students.

Other
This is a key course to enable progression through the remainder of the program core. We will continue to monitor this to ensure that students have the requisite skills to continue.

Indirect - Student Survey

Assessment Method Description
Students are asked through an exit survey to self-assess their knowledge of materials they have learned in the program and to identity their level of satisfaction with the program. The department distributes an exit survey that we use as an indirect measure of students' satisfaction with the program and their professional success upon graduation.

Performance Target
85% of graduating students will state that they view the program and the knowledge they have learned as positive or very positive.

Assessment Results and Use of Results

Reporting Period
2022 - 2023

Assessment Results Entry Date
09/28/2023

Assessment Results

Our exit survey was a casualty for a couple years during the pandemic, and front office staff turnover stymied our effort to resurrect it effectively during AY 22-23. Of the 7 students who responded to the exit survey, which was emailed during the final week of classes, only one earned an GIS BA. This individual indicates that they view the program and the knowledge they learned very positively. This result exceeds our expectation.

Results Status

Target Met

Number of Students Assessed

1

USE OF ASSESSMENT RESULTS

Curriculum

Our department has an ad hoc committee reviewing our GIS courses to determine, and if need be, undertake curriculum revision to better serve our students.

Methods of Assessment

Moving forward, we are determined to better orchestrate delivery of the exit survey. This assessment result highlights our need to better survey graduating students. To assure the delivery of a useful exit survey, we plan to make responding to it a required element of the presentation session scheduled during the capstone final exam period at the end of each semester.

Research Tool Proficiency

Student Learning Outcome (SLO)

Demonstrate the ability to analyze, interpret, and draw conclusions about geographic problems and information including demonstrating proficiency in using geographical research tools focused on both quantitative and qualitative methods.

Outcome Status

Active

Direct - Examination

Assessment Method Description

Term project, Quantitative Methods Class

Performance Target

For each of the direct assessments, we use the same departmental scale, which is: One (1) is does not meet expectations, two (2) is meets expectations, and three (3) is exceeds expectations. The performance target is for 85% of the students to meet or exceed expectations.

Assessment Results and Use of Results

Reporting Period

2022 - 2023

Assessment Results Entry Date

09/28/2023

Assessment Results

Three GIS BA students took GEOG 3924 "Quantitative Methods" and two of them met expectations, with one earning an A and the other earning a B on the term assignment in this class. Alas, the third student earned an F on this assignment. This doesn't meet our expectations of 85% of the students passing this exam

Results Status

Target Not Met

Number of Students Assessed

3

USE OF ASSESSMENT RESULTS

Curriculum

Our department has an ad hoc committee reviewing our GIS courses to determine, and if need be, undertake curriculum revision to better serve our students.

Direct - Project

Assessment Method Description
Research proposal for research methods and professional development course

Performance Target
For each of the direct assessments, we use the same departmental scale, which is: One (1) is does not meet expectations, two (2) is meets expectations, and three (3) is exceeds expectations. The performance target is for 85% of the students to meet or exceed expectations.

Assessment Results and Use of Results

Reporting Period
2022 - 2023

Assessment Results Entry Date
09/28/2023

Assessment Results
During AY 22-23, three GIS BA students took GEOG 4893 "Research Methods and Professional Development" and each of them successfully prepared a research proposal that met expectations, with two earning an A and the third earning a B. These results exceed our expectation.

Results Status
Target Met

Number of Students Assessed
3

USE OF ASSESSMENT RESULTS

Curriculum
Our department has an ad hoc committee reviewing our GIS courses to determine, and if need be, undertake curriculum revision to better serve our students.

Other
The proposal for the Research Methods and Professional Development class is used to determine the student's ability to produce a valid capstone project. We monitor this result carefully to assist those students that might need additional support during the capstone class.

Direct - Project

Assessment Method Description
Research paper for Proseminar class

Performance Target
For each of the direct assessments, we use the same departmental scale, which is: One (1) is does not meet expectations, two (2) is meets expectations, and three (3) is exceeds expectations. The performance target is for 85% of the students to meet or exceed expectations.

Assessment Results and Use of Results

Reporting Period
2022 - 2023

Assessment Results Entry Date
09/28/2023

Assessment Results
Six of our GIS BA students took GEOG 4953 and all of them prepared a successful research paper, with four earning an A and two earning a B. These results exceed our expectations.

Results Status
Target Met

Number of Students Assessed
6

USE OF ASSESSMENT RESULTS
Curriculum

Our department has an ad hoc committee reviewing our GIS courses to determine, and if need be, undertake curriculum revision to better serve our students.

Other
This is the final assessment that we use to determine if students have completed all materials needed for the degree, and we will continue to monitor student performance.

Direct - Project

Assessment Method Description
Term project for Qualitative Methods class

Performance Target
For each of the direct assessments, we use the same departmental scale, which is: One (1) is does not meet expectations, two (2) is meets expectations, and three (3) is exceeds expectations. The performance target is for 85% of the students to meet or exceed expectations.

Assessment Results and Use of Results

Reporting Period
2022 - 2023

Assessment Results Entry Date
09/28/2023

Assessment Results
During AY 22-23, eight GIS BA students enrolled in our department's qualitative research class, GEOG 4313, with four earning an A on their term project and the other four earning a B. These results exceed our expectations.

Results Status
Target Met

Number of Students Assessed
8

USE OF ASSESSMENT RESULTS
No Changes Needed
These results are encouraging and suggest that no specific change of direction is necessary at this time. We are glad to see our GIS student gain experience in working with qualitative data.

GIS tool proficiency

Student Learning Outcome (SLO)
Demonstrate the ability to analyze, interpret, and draw conclusions about geographic problems and information including demonstrating proficiency in the use of GIS and Remote Sensing tools to create maps that effectively convey information.

Outcome Status
Active

Direct - Project

Assessment Method Description
Final project for Fundamentals of GIS class

Performance Target
For each of the direct assessments, we use the same departmental scale, which is: One (1) is does not meet expectations, two (2) is meets expectations, and three (3) is exceeds expectations. The performance target is for 85% of the students to meet or exceed expectations.

Assessment Results and Use of Results

Reporting Period
2022 - 2023

Assessment Results Entry Date
09/28/2023

Assessment Results
During AY 22-23, two GIS BA students enrolled in GIS 4013 "Fundamentals of GIS," and they both earned an A on their final project. These results exceed our expectations.

Results Status
Target Met

Number of Students Assessed
2

USE OF ASSESSMENT RESULTS

Curriculum
Our department has an ad hoc committee reviewing our GIS courses to determine, and if need be, undertake curriculum revision to better serve our students.

Direct - Project

Assessment Method Description
Inquiry project for Fundamentals of Remote Sensing class

Performance Target
For each of the direct assessments, we use the same departmental scale, which is: One (1) is does not meet expectations, two (2) is meets expectations, and three (3) is exceeds expectations. The performance target is for 85% of the students to meet or exceed expectations.

Assessment Results and Use of Results

Reporting Period
2022 - 2023

Assessment Results Entry Date
09/28/2023

Assessment Results
During AY 22-23, four students enrolled in GIS 4133 "Fundamentals of Remote Sensing," with two of them earning an A on their term project and the other two earning a B. These results exceed our expectations.

Results Status
Target Met

Number of Students Assessed
4

USE OF ASSESSMENT RESULTS

Curriculum
Our department has an ad hoc committee reviewing our GIS courses to determine, and if need be, undertake curriculum revision to better serve our students.

Database Management Skills

Student Learning Outcome (SLO)
 Demonstrate the ability to analyze, interpret, and draw conclusions about geographic problems and information including demonstrating organizational skills in file and database management.

Outcome Status
Active

Direct - Project

Assessment Method Description
Final project for Fundamentals of GIS class

Performance Target
For each of the direct assessments, we use the same departmental scale, which is: One (1) is does not meet expectations, two (2) is meets expectations, and three (3) is exceeds expectations. The performance target is for 85% of the students to meet or exceed expectations.

Assessment Results and Use of Results

Reporting Period
2022 - 2023

Assessment Results Entry Date
09/28/2023

Assessment Results
During AY 22-23, two GIS BA students enrolled in GIS 4013 "Fundamentals of GIS," and they both earned an A on their final project. These results meet our expectations.

Results Status
Target Met

Number of Students Assessed
2

USE OF ASSESSMENT RESULTS
Curriculum
Our department has an ad hoc committee reviewing our GIS courses to determine, and if need be, undertake curriculum revision to better serve our students.

Communication

Student Learning Outcome (SLO)
Demonstrate the ability to communicate geographic information utilizing both oral and written outlets by defending and communicating facts, ideas and scientific research through graphic and data visualization concepts.

Outcome Status
Active

Direct - Project

Assessment Method Description
Final Project for Fundamentals of GIS class

Performance Target
For each of the direct assessments, we use the same departmental scale, which is: One (1) is does not meet expectations, two (2) is meets expectations, and three (3) is exceeds expectations. The performance target is for 85% of the students to meet or exceed expectations.

Assessment Results and Use of Results

Reporting Period
2022 - 2023

Assessment Results Entry Date
09/28/2023

Assessment Results
During AY 22-23, two GIS BA students enrolled in GIS 4013 "Fundamentals of GIS," and they both earned an A on their final project. These results meet our expectations.

Results Status
Target Met

Number of Students Assessed
2

USE OF ASSESSMENT RESULTS
Curriculum
Our department has an ad hoc committee reviewing our GIS courses to determine, and if need be, undertake curriculum revision to better serve our students.

Direct - Project

Assessment Method Description
Research paper for Proseminar class

Performance Target

For each of the direct assessments, we use the same departmental scale, which is: One (1) is does not meet expectations, two (2) is meets expectations, and three (3) is exceeds expectations. The performance target is for 85% of the students to meet or exceed expectations.

Assessment Results and Use of Results

Reporting Period
2022 - 2023

Assessment Results Entry Date
09/28/2023

Assessment Results
Six of our GIS BA students took GEOG 4953 and all of them prepared a successful research paper, with four earning an A and two earning a B.

Results Status
Target Met

Number of Students Assessed
6

USE OF ASSESSMENT RESULTS
No Changes Needed
This is the final assessment that we use to determine if students have completed all materials needed for the degree, and we will continue to monitor student performance.

Research project experience

Student Learning Outcome (SLO)
Demonstrate the ability to analyze, interpret, and draw conclusions about geographic problems and information, including formulating a research methodology and executing an individual research project.

Outcome Status
Active

Direct - Project

Assessment Method Description
Research proposal for the Research Methods and Professional Development class

Performance Target
For each of the direct assessments, we use the same departmental scale, which is: One (1) is does not meet expectations, two (2) is meets expectations, and three (3) is exceeds expectations. The performance target is for 85% of the students to meet or exceed expectations.

Assessment Results and Use of Results

Reporting Period
2022 - 2023

Assessment Results Entry Date
09/28/2023

Assessment Results
During AY 22-23, three GIS BA students took GEOG 4893 "Research Methods and Professional Development" and each of them successfully prepared a research proposal that met expectations, with two earning an A and the third earning a B. These results exceed our expectations.

Results Status
Target Met

Number of Students Assessed
3

USE OF ASSESSMENT RESULTS
Other

The proposal for the Research Methods and Professional Development class is used to determine the student's ability to produce a valid capstone project. We monitor this result carefully to assist those students that might need additional support during the capstone class.

Direct - Project

Assessment Method Description
Research paper for the Proseminar class

Performance Target
For each of the direct assessments, we use the same departmental scale, which is: One (1) is does not meet expectations, two (2) is meets expectations, and three (3) is exceeds expectations. The performance target is for 85% of the students to meet or exceed expectations.

Assessment Results and Use of Results

Reporting Period
2022 - 2023

Assessment Results Entry Date
09/28/2023

Assessment Results
Six of our GIS BA students took GEOG 4953 and all of them prepared a successful research paper, with four earning an A and two earning a B. These results exceed our expectations.

Results Status
Target Met

Number of Students Assessed
6

USE OF ASSESSMENT RESULTS
Other
This is the final assessment that we use to determine if students have completed all materials needed for the degree, and we will continue to monitor student performance.

Internship

Student Learning Outcome (SLO)
Demonstration of interest in exploring real-world issues and in obtaining practical exposure to those issues

Outcome Status
Active

Indirect - Student Survey

Assessment Method Description
Exit survey administered annually by our department to graduating seniors.

Performance Target
85% of students enrolled in internships will view it as a successful and worthwhile activity, as determined by their responses to the survey. In addition at least 10% of the students enrolled in this major will enroll in an internship or faculty-driven research class each year.

Assessment Results and Use of Results

Reporting Period
2022 - 2023

Assessment Results Entry Date
09/28/2023

Assessment Results
Our exit survey was a casualty for a couple years during the pandemic, and front office staff turnover stymied our effort to resurrect it effectively during AY 22-23. Of the seven students who responded to the exit survey, which was emailed during the final week of classes, only one earned an GIS BA. This individual indicates that they did not undertake an internship while a student in our department. This result does not meet our expectations.

Results Status
Target Not Met
Number of Students Assessed
1
USE OF ASSESSMENT RESULTS
Methods of Assessment
Moving forward, we are determined to better orchestrate delivery of the exit survey. This assessment result highlights our need to better survey graduating students. To assure the delivery of a useful exit survey, we plan to make responding to it a required element of the presentation session scheduled during the capstone final exam period at the end of each semester.

Student Performance

Student Learning Outcome (SLO)
Demonstrate satisfactory progress in all courses by maintaining an overall GPA of at least 2.25.

Outcome Status
Active

Indirect - G.P.A./Transcript Analysis

Assessment Method Description
To qualify for the BS degree, students must maintain an overall grade point average of 2.25 or higher in the degree program coursework and in all coursework attempted.
Performance Target
At least 90% of our students will maintain a 2.25 GPA

Assessment Results and Use of Results
Reporting Period
2022 - 2023
Assessment Results Entry Date
09/28/2023
Assessment Results
No GIS BA student was stopped out due to low GPA during the reporting period.
Results Status
Target Met
Number of Students Assessed
6
USE OF ASSESSMENT RESULTS
Other
We monitor student GPA as a check to see which students are making satisfactory progress. This assessment and the stop-out process is used to help those at risk students and work with them to improve their GPA and work toward graduation.