

Learning Outcomes 2024-2025

Assessment Report

Texas State University

Department of Geography

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GEOL 1420 (Historical Geology)

- **Assessment period:** 2024-2025
- **Outcomes status:** Complete
- **Results status:** Complete

Program code: 3

Outcome type: General Education

Degree: Other

Department: Geography

Program: GEOL 1420 (Historical Geology)

Mission Statement and Coordinator

Mission Statement

The mission of the general education core curriculum at Texas State University is to provide students with a broad academic foundation in the component areas of communication; mathematics; life and physical sciences; language, philosophy and culture; creative arts; American history; government/political science; and social and behavioral sciences.

Life and Physical Sciences Mission:

The mission of the life and physical sciences component is to focus on describing, explaining, and predicting natural phenomena using the scientific method.

Coordinator

Injeong Jo / Shelly Wernette

Evidence of Improvement and Action Plan

Evidence of Improvement

For the current assessment year, all outcomes met their target values and Outcome 1 increased considerably, indicating the success of previous instructional strategies. Last year's action plan was to specifically improve student's teamwork skills (Outcome 5) and this year's results reflect that successful effort.

Action Plan

The success measurements indicated above support the continuation of the instructional strategies previously implemented. Even though Outcomes 2-5 each met their target scores, those scores were lower than last year. To address this in the upcoming year, we will emphasize efforts to improve student's critical thinking, communication, empirical and quantitative skills and teamwork through targeted class activities and projects.

Outcome 1

Component: Life and Physical Sciences

Description

Students will describe interactions among natural phenomena and the implications of scientific principles on the physical world and on human experiences.

Outcome 1 Method 1

Students taking Historical Geology (GEOL 1420) will be evaluated during and/or at the end of the semester by course instructors on their knowledge of how natural phenomena have shaped the Earth through its history using embedded test questions administered during Historical Geology (GEOL 1420) class examinations. Students' knowledge will be assessed on the basis of exceeding, meeting or failing to meet expectations, which will be determined by the students' total score on the embedded test questions. (90% - 100% = exceeded expectations, 70% - 89% = met expectations, 69% or below = failed to meet expectations). We expect at least 70% of the students will meet or exceed expectations for this outcome.

Outcome 1 Method 1 Result

During the current assessment year, 105 undergraduate students were evaluated by their course instructors on their knowledge of the of Earth's historical geology and the scientific principles that govern the major theories and concepts of historical geology and the scientific

method to describe the interactions between the Earth's various historical systems using 10 embedded exam questions from the course: Historical Geology (GEOL 1420). The course instructors found that 98% of the students met (26%) or exceeded (72%) expectations for this outcome / method. The target of 70% of the students meeting or exceeding expectations was achieved.

Outcome 2

Competency: Critical Thinking

Description

Students will demonstrate creative thinking, innovation, inquiry, analysis, evaluation and synthesis of information.

Outcome 2 Method 1

Students taking Historical Geology (GEOL 1420) will be evaluated during and/or at the end of the semester by course instructors on their ability to apply the scientific method to the study of how natural phenomena have shaped the Earth through its history using embedded test questions administered during Historical Geology (GEOL 1420) class examinations. Students' knowledge will be assessed on the basis of exceeding, meeting or failing to meet expectations, which will be determined by the students' total score on the embedded test questions. (90% - 100% = exceeded expectations, 70% - 89% = met expectations, 69% or below = failed to meet expectations). We expect at least 70% of the students will meet or exceed expectations for this outcome.

Outcome 2 Method 1 Result

During the current assessment year, 90 undergraduate students were evaluated by their course instructor on their ability to apply the scientific method to the study of the natural phenomena of historical geology using embedded exam questions from the course: Historical Geology (GEOL 1420). The course instructors found that 84% of the students met (36%) or exceeded (49%) expectations for this outcome / method. The target of 70% of the students meeting or exceeding expectations was achieved.

Outcome 3

Competency: Communication

Description

Students will effectively develop, interpret and express ideas through written, oral and visual communication.

Outcome 3 Method 1

Students taking Historical Geology (GEOL 1420) will be evaluated during and/or at the end of the semester by course instructors on their ability to use writing, speech and visualizations to express ideas about how natural phenomena have shaped Earth through its history using a lab project / presentation with grading rubric from the course: Historical Geology (GEOL 1420). Students' ability will be assessed on the basis of exceeding, meeting or failing to meet expectations, which will be determined by the students' total score on the lab project / presentation. (90% - 100% = exceeded expectations, 70% - 89% = met expectations, 69% or below = failed to meet expectations). We expect at least 70% of the students will meet or exceed expectations for this outcome.

Outcome 3 Method 1 Result

During the current assessment year, 95 undergraduate students were evaluated on their ability to use writing, speech and visualizations to express ideas about the natural phenomena of historical geology their course instructors using a 100-point rubric-graded lab project from the course: Historical Geology (GEOL 1420). The course instructors found that 82% of the students met (64%) or exceeded (18%) expectations for this outcome / method. The target of 70% of the students meeting or exceeding expectations was achieved.

Outcome 4

Competency: Empirical and Quantitative Skills

Description

Students will manipulate and analyze numerical data or observable facts resulting in informed conclusions.

Outcome 4 Method 1

Students taking Historical Geology (GEOL 1420) will be evaluated during and/or at the end of the semester by course instructors on their ability to manipulate and analyze numerical historical geology data and observable historical geology facts using a lab project with grading rubric from the course: Historical Geology (GEOL 1420). Students' ability will be assessed on the basis of exceeding, meeting or failing to meet expectations, which will be determined by the

students' total score on the lab project. (90% - 100% = exceeded expectations, 70% - 89% = met expectations, 69% or below = failed to meet expectations). We expect at least 70% of the students will meet or exceed expectations for this outcome.

Outcome 4 Method 1 Result

During the current assessment year, 88 undergraduate students were evaluated by their course instructors on their ability to manipulate and analyze numerical historical geology data and observable historical geology facts using a 100 - Point rubric-graded lab project from the course: Historical Geology (GEOL 1420). The course instructors found that 86% of the students met (47%) or exceeded (40%) expectations for this outcome / method. The target of 70% of the students meeting or exceeding expectations was achieved.

Outcome 5

Competency: Teamwork

Description

Students will recognize different points of view and work effectively with others to support a shared purpose or goal.

Outcome 5 Method 1

Students taking Historical Geology (GEOL 1420) will be evaluated during and/or at the end of the semester by course instructors on their ability to work effectively with others to support a shared purpose and goal using a group lab project with grading rubric from the course: Historical Geology (GEOL 1420). Students' ability will be assessed on the basis of exceeding, meeting or failing to meet expectations, which will be determined by the students' total score on the group lab project. (90% - 100% = exceeded expectations, 70% - 89% = met expectations, 69% or below = failed to meet expectations). We expect at least 70% of the students will meet or exceed expectations for this outcome.

Outcome 5 Method 1 Result

During the current assessment year, 100 undergraduate students were evaluated by their course instructors on their ability to work effectively with others to support a shared purpose and goal using a 100-point rubric-graded group lab project from the course: Historical Geology (GEOL 1420). The course instructors found that 84% of the students met (61%) or exceeded (23%) expectations for this outcome / method. The target of 70% of the students meeting or exceeding expectations was achieved.

Approval History

Approval history details

Date and time approved	Approver	Approval event
9/16/2024 at 7:17 AM	Dr. Injeong Jo i_j13	Outcomes Data Entry Submittal
9/18/2024 at 3:33 PM	Dr. Jennifer Jensen jj41	Outcomes Level 1 Approval
11/9/2024 at 11:45 AM	Dr. Amy Weimer a_w377	Outcomes Audit
12/13/2024 at 1:33 PM	Dr. Jeff M Housman jh212	Outcomes Level 2 Approval
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6/17/2025 at 1:33 PM	Dr. Danette L Myers dm19	Results Audit
7/28/2025 at 10:19 AM	Dr. Jeff M Housman jh212	Results Level 2 Approval

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GEO 1310 (World Geography)

- **Assessment period:** 2024-2025
- **Outcomes status:** Complete
- **Results status:** Complete

Program code: 8

Outcome type: General Education

Degree: Other

Department: Geography

Program: GEO 1310 (World Geography)

Mission Statement and Coordinator

Mission Statement

The mission of the general education core curriculum at Texas State University is to provide students with a broad academic foundation in the component areas of communication; mathematics; life and physical sciences; language, philosophy and culture; creative arts; American history; government/political science; and social and behavioral sciences.

Social and Behavioral Sciences Mission:

The mission of the social and behavioral sciences component is to focus on the application of empirical and scientific methods that contribute to the understanding of what makes us human.

Coordinator

Injeong Jo / Brian Cooper

Evidence of Improvement and Action Plan

Evidence of Improvement

During the current assessment year, we continued implementing targeted instructional strategies aimed at improving student learning outcomes. Notably, Outcomes 1, 2, 4 and 5 each exceeded our target expectation and showed consistent performance compared to last year. Outcome 3 experienced a decrease in average scores, moving from 74% last year to 69% this year, and was slightly lower than our target outcome of 70%, suggesting a need to revisit instructional methods for this outcome.

Action Plan

The steady performance in Outcomes 1, 2, 4 and 5 suggests that the instructional strategies implemented last year remain effective and will therefore be continued into the next assessment cycle. However, the decline in Outcome 3 scores (from 74% to 69%) indicates a need for renewed instructional focus. To address this, instructors will incorporate more targeted activities that promote the development, interpretation and expression of ideas about major physical and cultural aspects of world geography. Instructors will emphasize maps as tools to locate and visualize these aspects of world geography to improve student's written, oral and visual communication skills.

Outcome 1

Component: Social and Behavioral Sciences

Description

Students will explore behavior and interactions among individuals, groups, institutions, and events, examining their impact on the individual, society, and culture.

Outcome 1 Method 1

Students taking World Geography (GEO 1310) will be evaluated during and/or at the end of the semester by course instructors on their knowledge of the major cultural features of the Earth and their impacts on the individual and society using embedded test questions administered during World Geography (GEO 1310) class examinations. Students' knowledge will be assessed on the basis of exceeding, meeting or failing to meet expectations, which will be determined by the students' total score on the embedded test questions. (90% - 100% = exceeded expectations, 70% - 89% = met expectations, 69% or below = failed to meet expectations). We expect at least 70% of the students will meet or exceed expectations for this outcome.

Outcome 1 Method 1 Result

During the current assessment year, 1120 undergraduate students were evaluated by their course instructors on their knowledge of the major cultural features of the Earth and their impacts on the individual and society by their course instructors using embedded test questions from the course: World Geography (GEO1310). The course instructors found that 83% of the students met (57%) or exceeded (26%) expectations for this outcome / method. The target of 70% of the students meeting or exceeding expectations was achieved.

Outcome 2

Competency: Critical Thinking

Description

Students will demonstrate creative thinking, innovation, inquiry, analysis, evaluation and synthesis of information.

Outcome 2 Method 1

Students taking World Geography (GEO 1310) will be evaluated during and/or at the end of the semester by course instructors on their success in using creative thinking, innovation, inquiry, analysis, evaluation and synthesis of information to build their knowledge and understanding of the major physical features of the Earth using embedded test questions administered during World Geography (GEO 1310) class examinations. Students' knowledge will be assessed on the basis of exceeding, meeting or failing to meet expectations, which will be determined by the students' total score on the embedded test questions. (90% - 100% = exceeded expectations, 70% - 89% = met expectations, 69% or below = failed to meet expectations). We expect at least 70% of the students will meet or exceed expectations for this outcome.

Outcome 2 Method 1 Result

During the current assessment year, 1113 undergraduate students were evaluated by their course instructors on their success in using creative thinking, innovation, inquiry, analysis, evaluation, and synthesis of information to build their knowledge and understanding of the major physical features of the Earth by their course instructors using embedded test questions from the course: World Geography (GEO1310). The course instructors found that 87% of the students met (56%) or exceeded (31%) expectations for this outcome / method. The target of 70% of the students meeting or exceeding expectations was achieved.

Outcome 3

Competency: Communication

Description

Students will effectively develop, interpret and express ideas through written, oral and visual communication.

Outcome 3 Method 1

Students taking World Geography (GEO 1310) will be evaluated during and/or at the end of the semester by course instructors on their ability to develop, interpret and express ideas about the major physical and cultural aspects of world geography through written, oral and visual communication including the use of maps as a tool to locate and visualize the Earth's major physical and cultural features using embedded test questions administered during World Geography (GEO 1310) class examinations. Students' knowledge will be assessed on the basis of exceeding, meeting or failing to meet expectations, which will be determined

by the students' total score on the embedded test questions. (90% - 100% = exceeded expectations, 70% - 89% = met expectations, 69% or below = failed to meet expectations). We expect at least 70% of the students will meet or exceed expectations for this outcome.

Outcome 3 Method 1 Result

During the current assessment year, 1113 undergraduate students were evaluated by their course instructors on their ability to develop, interpret and express ideas about the major physical and cultural aspects of world geography through written, oral, and visual communication including the use of maps as a tool to locate and visualize the Earth's major physical and cultural features by their course instructor using embedded test questions from the course: World Geography (GEO1310). The course instructors found that 69% of the students met (62%) or exceeded (7%) expectations for this outcome / method. The target of 70% of the students meeting or exceeding expectations was not achieved.

Outcome 4

Competency: Empirical and Quantitative Skills

Description

Students will manipulate and analyze numerical data or observable facts resulting in informed conclusions.

Outcome 4 Method 1

Students taking World Geography (GEO 1310) will be evaluated during and/or at the end of the semester by course instructors on their ability to manipulate and analyze numerical data or observable facts for the world's regions resulting in informed conclusions to gain an understanding of the distribution and variation of the Earth's physical and cultural variables using embedded test questions administered during World Geography (GEO 1310) class examinations. Students' knowledge will be assessed on the basis of exceeding, meeting or failing to meet expectations, which will be determined by the students' total score on the embedded test questions. (90% - 100% = exceeded expectations, 70% - 89% = met expectations, 69% or below = failed to meet expectations). We expect at least 70% of the students will meet or exceed expectations for this outcome.

Outcome 4 Method 1 Result

During the current assessment year, 1113 undergraduate students were evaluated by their course instructors on their ability to manipulate and analyze numerical data or observable facts for the world's regions resulting in informed conclusions to gain an understanding of the distribution and variation of the Earth's physical and cultural variables by their course instructors using embedded test questions from the course: World Geography (GEO1310). The course instructors found that 78% of the undergraduate students met (62%) or exceeded (16%) expectations for this outcome / method. The target of 70% of the students meeting or exceeding expectations was achieved.

Outcome 5

Competency: Social Responsibility

Description

Students will demonstrate intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities.

Outcome 5 Method 1

Students taking World Geography (GEO 1310) will be evaluated during and/or at the end of the semester by course instructors on their ability demonstrate intercultural competence, knowledge of civic responsibility and the ability to engage effectively in regional, national and global communities through an understanding of the physical and cultural geographies of the Earth using embedded test questions administered during World Geography (GEO 1310) class examinations. Students' knowledge will be assessed on the basis of exceeding, meeting or failing to meet expectations, which will be determined by the students' total score on the

embedded test questions. (90% - 100% = exceeded expectations, 70% - 89% = met expectations, 69% or below = failed to meet expectations). We expect at least 70% of the students will meet or exceed expectations for this outcome.

Outcome 5 Method 1 Result

During the current assessment year, 1113 undergraduate students were evaluated by their course instructors on their ability demonstrate intercultural competence, knowledge of civic responsibility and the ability to engage effectively in regional, national, and global communities through an understanding of the physical and cultural geographies of the Earth by their instructor using embedded test questions from the course: World Geography (GEO1310). The course instructors found that 84% of the undergraduate students met (66%) or exceeded (19%) expectations for this outcome / method. The target of 70% of the students meeting or exceeding expectations was achieved.

Approval History

Approval history details

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9/16/2024 at 7:09 AM	Dr. Injeong Jo i_j13	Outcomes Data Entry Submittal
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12/13/2024 at 1:31 PM	Dr. Jeff M Housman jh212	Outcomes Level 2 Approval
5/15/2025 at 1:39 PM	Dr. Elizabeth Erhart ee10	Results Data Entry Submittal
5/16/2025 at 7:38 AM	Dr. Jennifer Jensen jj41	Results Level 1 Approval
5/30/2025 at 4:09 PM	Dr. Amy Weimer a_w377	Results Audit
7/28/2025 at 10:18 AM	Dr. Jeff M Housman jh212	Results Level 2 Approval

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Geography (PhD)

- **Assessment period:** 2024-2025
- **Outcomes status:** Complete
- **Results status:** Complete

Program code: 45.07

Outcome type: Student Learning (GR)

Degree: Doctoral

Department: Geography

Program: Geography (PhD)

Mission Statement and Coordinator

Mission Statement

The doctoral degree in Geography is designed to provide depth and breadth of knowledge in geographic theory and research methods resulting in the completion of significant original research in the form of a PhD dissertation. Students will be educated in the process of geographic research, the development of new knowledge and methods and the application of research, techniques, pedagogy and geographic knowledge to address problems with spatial dimensions.

Coordinator

Ron Hagelman

Evidence of Improvement and Action Plan

Evidence of Improvement

During the current assessment year, we continued implementing the instructional strategies introduced previously and all our target metrics were met. Each metric was 100% except for Outcome 2 - Method 2 which was 88%. The previous year's action plan was to improve Outcome 3 - Method 2 (the percentage of students meeting requirements for their draft research proposal) and we were successful in that outcome. We also increased our delivery efficiency by adding one more student to the program than last year. Our completion efficiency (i.e., time to degree completion) continues to be at the university level of efficiency.

Action Plan

The success measurements indicated above lead to the conclusion that the instructional strategies implemented in the previous year continue to be effective and will be maintained in the upcoming assessment cycle. For the next assessment year, we will focus on improving performance in Outcome 2 - Method 2, where the percentage of students meeting or exceeding expectations declined from 100% to 88%. To address this, instructors will incorporate more targeted practice in applying quantitative methods through individual assignments and peer review sessions, with an emphasis on interpreting and communicating analytical results in varied research contexts.

Outcome 1

Description

Students will demonstrate their knowledge of the historical roots, development and contemporary philosophical and theoretical debates in the discipline of geography, as well as their ability to produce a term paper based on primary sources and formatted in the style of the Annals of the American Association of Geographers.

Outcome 1 Method 1

Students taking Nature and Philosophy of Geography (GEO 7302) will be evaluated by course instructors on their knowledge of the historical roots, development and contemporary philosophical and theoretical debates in the discipline of geography using an embedded class assignment graded with a rubric during and / or at the end of the semester. Students' knowledge will be assessed by the percentage of points received on the grading rubric on the basis of: Exceeding Expectations (100% - 90%); Meeting Expectations (89% - 80%); or Failing to Meet Expectations (79% or less). We expect at least 80% of the students will meet or exceed expectations for this outcome / method.

Outcome 1 Method 1 Result

During the current assessment year, 13 graduate students were evaluated by course instructor on their knowledge of the historical roots, development, and contemporary philosophical and theoretical debates in the discipline of geography using an embedded class assignment. The course instructors found that 100% of the students met (0%) or exceeded (100%) expectations for this outcome / method. The target of 80% of the students meeting or exceeding expectations was achieved.

Outcome 1 Method 2

Students taking Nature and Philosophy of Geography (GEO 7302) will be evaluated by course instructors on their ability to produce a term paper based on primary sources and formatted in the style of the Annals of the American Association of Geographers using an embedded class assignment graded with a rubric during and / or at the end of the semester. Students' knowledge will be assessed by the percentage of points received on the grading

rubric on the basis of: Exceeding Expectations (100% - 90%); Meeting Expectations (89% - 80%); or Failing to Meet Expectations (79% or less). We expect at least 80% of the students will meet or exceed expectations for this outcome / method.

Outcome 1 Method 2 Result

During the current assessment year, 13 graduate students were evaluated by course instructor on their ability to produce a term paper based on primary sources and formatted in the style of the *Annals of the Association of American Geographers* using an embedded class assignment. The course instructors found that 100% of the students met (0%) or exceeded (100%) expectations for this outcome / method. The target of 80% of the students meeting or exceeding expectations was achieved.

Outcome 2

Description

Students will demonstrate their advanced proficiency in the use of technical tools for geographic research including quantitative methods and other appropriate statistical tools for spatial analysis, as well as their ability to use statistical research tools to produce a research paper suitable for publication in a refereed journal.

Outcome 2 Method 1

Students taking Advanced Quantitative Methods in Geography (GEO 7301) will be evaluated by course instructors on their advanced proficiency in the use of technical tools for geographic research including quantitative methods and other appropriate statistical tools for spatial analysis using an embedded class assignment graded with a rubric at the end of the semester.

Students' knowledge will be assessed by the percentage of points received on the grading rubric on the basis of: Exceeding Expectations (100% - 90%); Meeting Expectations (89% - 80%); or Failing to Meet Expectations (79% or less). We expect at least 80% of the students will meet or exceed expectations for this outcome / method.

Outcome 2 Method 1 Result

During the current assessment year, 8 graduate students were evaluated by course instructor on their advanced proficiency in the use of technical tools for geographic research including quantitative methods and other appropriate statistical tools for spatial analysis using an embedded class assignment. The course instructors found that 100% of the students met (13%) or exceeded (88%) expectations for this outcome / method. The target of 80% of the students meeting or exceeding expectations was achieved.

Outcome 2 Method 2

Students taking Advanced Quantitative Methods in Geography (GEO 7301) will be evaluated by course instructors on their ability to use statistical research tools to produce a research paper - suitable for publication in a refereed journal - graded with a rubric at the end of the semester. Students' knowledge will be assessed by the percentage of points received on the grading rubric on the basis of: Exceeding Expectations (100% - 90%); Meeting Expectations (89% - 80%); or Failing to Meet Expectations (79% or less). We expect at least 80% of the students will meet or exceed expectations for this outcome / method.

Outcome 2 Method 2 Result

During the current assessment year, 8 graduate students were evaluated by the course instructor on their ability to use statistical research tools to produce a research paper suitable for publication in a refereed journal. The course instructors found that 88% of the students met (13%) or exceeded (75%) expectations for this outcome / method. The target of 80% of the students meeting or exceeding expectations was achieved.

Outcome 3

Description

Students will demonstrate their knowledge of the basic components of research grant proposals and their ability to critique research designs and manuscripts, as well as their ability to produce a draft research proposal for their dissertation.

Outcome 3 Method 1

Students taking Advanced Geographic Research Design (GEO 7300) will be evaluated by course instructors on their knowledge of the basic components of research grant proposals and their ability to critique research designs and manuscripts using an embedded class assignment graded with a rubric during and / or at the end of the semester. Students' knowledge will be assessed by the percentage of points received on the grading rubric on the basis of: Exceeding Expectations (100% - 90%); Meeting Expectations (89% - 80%); or Failing to Meet Expectations (79% or less). We expect at least 80% of the students will meet or exceed expectations for this outcome / method.

Outcome 3 Method 1 Result

During the current assessment year, 7 graduate students were evaluated by course instructors on their knowledge of the basic components of research grant proposals and their ability to critique research designs and manuscripts using an embedded class assignment. The course instructors found that 100% of the students met (0%) or exceeded (100%) expectations for this outcome / method. The target of 80% of the students meeting or exceeding expectations was achieved.

Outcome 3 Method 2

Students taking Advanced Geographic Research Design (GEO 7300) will be evaluated by course instructors on their ability to produce a draft research proposal for their dissertation graded with a rubric at the end of the semester. Students' knowledge will be assessed by the percentage of points received on the grading rubric on the basis of: Exceeding Expectations (100% - 90%); Meeting Expectations (89% - 80%); or Failing to Meet Expectations (79% or less). We expect at least 80% of the students will meet or exceed expectations for this outcome / method.

Outcome 3 Method 2 Result

During the current assessment year, 7 graduate students were evaluated by course instructors on their ability to produce a draft research proposal for their dissertation. The course instructors found that 100% of the students met (0%) or exceeded (100%) expectations for this outcome / method. The target of 80% of the students meeting or exceeding expectations was achieved.

Outcome 4

Description

The academic program will promote and realize gains in student success.

Outcome 4 Method 1

Student retention success will be measured by observing one year retention rates of students enrolled in the academic program from their first to second year. Data will be obtained from the university's certified enrollment records at the end of the fall semester. Rates of retention success will be expected to be at or above the university average for this level of program.

Outcome 4 Method 1 Result

Student retention success measured by first-to-second year retention rate (100%) for students enrolled in Geography: Ph.D. met the expectation to be at or above the University average (93%) for this level of program.

Outcome 4 Method 2

Student graduation success will be measured by observing the number of graduates from the academic program during the fall, spring, and summer semesters and comparing the number of graduates to the number of students enrolled in the program. Data will be obtained from the university's certified enrollment records for the fall, spring, and summer semesters. The number of graduates is expected to be at or above the university rate of graduation for this level of program.

Outcome 4 Method 2 Result

The current year graduation success rate for Geography - Ph.D. students of 21% (11 graduates / 52 students enrolled) met expectations of exceeding the University graduation rate average of 10% (56 graduates / 543 students enrolled).

Outcome 5

Description

The academic program will promote and realize efficiency in the delivery and completion of the program.

Outcome 5 Method 1

Delivery efficiency will be measured by reviewing the total number students enrolled in the academic program during the fall semester. Data will be obtained from the university's certified enrollment records at the end of the fall semester. Delivery efficiency will be expected to increase from year to year.

Outcome 5 Method 1 Result

Delivery efficiency measured by the number of students (52) majoring in Geography - Ph.D. in the current year compared to the number of majors (51) in the previous year met the expectation of an increase in the number of students from year to year.

Outcome 5 Method 2

Completion efficiency will be measured by observing the average time-to-completion for students in the academic program. Data will be obtained from the university's certified enrollment records for the fall semester. The time-to-completion of graduates is expected to be at or below the university average for this level of program.

Outcome 5 Method 2 Result

Completion efficiency measured by the average time to completion (native students) for students majoring in Geography - Ph.D. for the current assessment year (6.5 years) met the expectation to be at or below the University average (6.5 years) for this level of program.

Approval History

Approval history details

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9/16/2024 at 7:06 AM	Dr. Injeong Jo i_j13	Outcomes Data Entry Submittal
9/18/2024 at 2:59 PM	Dr. Jennifer Jensen jj41	Outcomes Level 1 Approval
10/2/2024 at 11:00 AM	Dr. Elizabeth Erhart ee10	Outcomes Audit
11/14/2024 at 10:30 AM	Dr. Mary C Brennan mb18	Outcomes Level 2 Approval
5/15/2025 at 1:57 PM	Dr. Elizabeth Erhart ee10	Results Data Entry Submittal
5/16/2025 at 7:39 AM	Dr. Jennifer Jensen jj41	Results Level 1 Approval
5/29/2025 at 9:17 AM	Dr. Elizabeth Erhart ee10	Results Audit
5/30/2025 at 12:05 PM	Dr. Mary C Brennan mb18	Results Level 2 Approval

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Geography Urban and Regional Planning (BS)

- **Assessment period:** 2024-2025
- **Outcomes status:** Complete
- **Results status:** Complete

Program code: 4.03

Outcome type: Student Learning (UG)

Degree: Undergraduate

Department: Geography

Program: Geography Urban and Regional Planning (BS)

Mission Statement and Coordinator

Mission Statement

The Urban and Regional Planning program prepares students for a wide variety of government and private sector employment opportunities relating to land-use, transportation, economic development, natural resource and waste-management planning occupations. The Urban and Regional Planning program provides students with the knowledge and skills required to evaluate and facilitate programs that benefit our neighborhoods, communities, cities, and regions. In addition to general and specialized lecture-format courses, the program offers a variety of project-based lab and field-trip experiences, career development through advising, job-shadowing and internships as well as team-building and leadership opportunities available by joining one or more Geography and Environmental Studies department student organizations. The Urban and Regional Planning program also prepares students for graduate studies in planning and planning-related fields. Finally, the Urban and Regional Planning program provides students with the foundation for a liberal education, preparing graduates to think independently, to choose freely and to base personal and professional decisions on a broad understanding of the Earth's physical and cultural landscapes in order to live full, rewarding lives.

Coordinator

Brian J Cooper

Evidence of Improvement and Action Plan

Evidence of Improvement

The instructional strategies introduced in the previous cycle and implemented during the current assessment year effectively supported student learning as evidenced by outcomes comparable to those of last year. Outcome 1 - Method 2, and Outcome 2 - Method 2 had slight improvements over last year and indicate that efforts to help students locate and explain major physical and cultural features of Earth are working. Outcome 2 - Method 1 had a sizeable increase from 84% to 89% compared to last year, reflecting improved student understanding of descriptive statistics, bi-variate relationships, and inferential statistics. The Planning Practicum capstone course improved Outcome 3 - Method 1, while Method 2 remained consistently high. The retention rate noted in Outcome 4 - Method 1 (89%) exceeded the corresponding university rate and was an improvement over last year. Program delivery efficiency (Outcome 5 - Method 1) increased 17% (from 56 students enrolled last year to 66 students enrolled this year). Completion efficiency, Outcome 5 - Method 2 (measured as time to degree completion), was less than the university average (4.2 years versus 4.4 years).

Action Plan

The success measurements in Outcome 2 - Method 1 and Method 2 support the continuation of the instructional strategies implemented in the previous year. For the next assessment year, we will focus on improving the program graduation rate (Outcome 4 - Method 2) by focusing advising efforts on supporting student's academic needs and providing invitations to program-related events that foster a sense of academic community and belonging in the program.

Outcome 1

Description

Students will demonstrate their knowledge of the major physical and cultural features of the Earth and their ability to locate examples of these major features, such as mountains, rivers, oceans, political boundaries, agricultural regions and language groups, on a map.

Outcome 1 Method 1

Students taking World Geography (GEO 1310) will be evaluated during and/or at the end of the semester by course instructors on the students' knowledge of the major physical and cultural features of the Earth using embedded test questions administered during World Geography (GEO 1310) class examinations. Students' knowledge will be assessed on the basis of: Exceeding Expectations (10 embedded test questions answered correctly); Meeting

Expectations (7 - 9 embedded test questions answered correctly); or Failing to Meet Expectations (6 or fewer embedded test questions answered correctly). We expect at least 70% of the students will meet or exceed expectations for this outcome / method.

Outcome 1 Method 1 Result

During the current assessment year, 690 undergraduate students were evaluated on their knowledge of the major physical and cultural features of the Earth by their course instructors using embedded test questions from the course: World Geography (GEO 1310). The course instructors found that 86% of the students met (45%) or exceeded (41%) expectations for this outcome / method. The target of 70% of the students meeting or exceeding expectations for this outcome and method was achieved.

Outcome 1 Method 2

Students taking World Geography (GEO 1310) will be evaluated during and/or at the end of the semester by course instructors on the students' ability to locate examples of major physical and cultural features of the Earth on a map using embedded test questions administered during World Geography (GEO 1310) class examinations. Students' ability will be assessed on the basis of: Exceeding Expectations (10 embedded test questions answered correctly); Meeting Expectations (7 - 9 embedded test questions answered correctly); or Failing to Meet Expectations (6 or fewer embedded test questions answered correctly). We expect at least 70% of the students will meet or exceed expectations for this outcome / method.

Outcome 1 Method 2 Result

During the current assessment year, 690 undergraduate students were evaluated on their ability to locate examples of major physical and cultural features of the Earth on a map by their course instructors using embedded test questions from the course: World Geography (GEO 1310). The course instructors found that 86% of the students met (45%) or exceeded (41%) expectations for this outcome / method. The target of 70% of the students meeting or exceeding expectations for this outcome and method was achieved.

Outcome 2

Description

Students will demonstrate knowledge of research methods used by geographers and their ability to use statistical software to solve geographic problems.

Outcome 2 Method 1

Students taking Research Methods in Geography (GEO 3301) will be evaluated during and/or at the end of the semester by course instructors on the students' knowledge of research methods using embedded test questions administered during Research Methods in Geography (GEO 3301) class examinations. Students' knowledge will be assessed on the

basis of: Exceeding Expectations (100% - 90% embedded test questions answered correctly); Meeting Expectations (89% - 70% embedded test questions answered correctly); or Failing to Meet Expectations (69% or fewer embedded test questions answered correctly). We expect at least 70% of the students will meet or exceed expectations for this outcome / method.

Outcome 2 Method 1 Result

During the current assessment year, 102 undergraduate students were evaluated on their knowledge of research methods by their course instructor using embedded test questions from the course: Research Methods for Geography (GEO 3301). The course instructor found that 89% of the students met (42%) or exceeded (47%) expectations on embedded knowledge questions about descriptive statistics, bi-variate relationships, and inferential statistics for this outcome / method. The target of 70% of the students meeting or exceeding expectations for this outcome and method was achieved.

Outcome 2 Method 2

Students taking Research Methods in Geography (GEO 3301) will be evaluated during and/or at the end of the semester by course instructors on the students' ability to use statistical software to solve geographic problems using a project graded with rubric. Students' ability will be assessed by the percentage of points received on the grading rubric on the basis of: Exceeding Expectations (100% - 90%); Meeting Expectations (89% - 70%); or Failing to Meet Expectations (69% or less). We expect at least 70% of the students will meet or exceed expectations for this outcome / method.

Outcome 2 Method 2 Result

During the current assessment year, 102 undergraduate students were evaluated on their ability to use statistical software to solve geographic problems using a project graded with rubric from the course: Research Methods for Geography (GEO 3301). The course instructor found that 93%

of the students met (26%) or exceeded (67%) expectations for this outcome / method. The target of 70% of the students meeting or exceeding expectations for this outcome and method was achieved.

Outcome 3

Description

Students will demonstrate their knowledge of urban and regional planning and their ability to demonstrate how effective urban planning influences the utility of the land and infrastructure.

Outcome 3 Method 1

Students taking Planning Practicum (GEO 4338) will be evaluated during and/or at the end of the semester by course instructors on the students' knowledge of urban and regional planning using embedded test administered during Planning Practicum (GEO 4338) class examinations. Specific embedded questions will target areas that need improvement as identified by the previous year's assessment. Students' knowledge will be assessed on the basis of: Exceeding Expectations (10 embedded test questions answered correctly); Meeting Expectations (7 - 9 embedded test questions answered correctly); or Failing to Meet Expectations (6 or fewer embedded test questions answered correctly). We expect at least 70% of the students will meet or exceed expectations for this outcome / method.

Outcome 3 Method 1 Result

During the current assessment year, 11 students were evaluated by the course instructors about their knowledge of urban and regional planning by their course instructors using embedded test questions from the course: Planning Practicum (GEO 4338). The course instructors found that 100% of the students met (36%) or exceeded (64%) expectations for this outcome and method. The target of 70% of the students meeting or exceeding expectations was achieved.

Outcome 3 Method 2

Students taking Planning Practicum (GEO 4338) will be evaluated during and/or at the end of the semester by course instructors on the students' ability to create a land-use plan in order to demonstrate how effective urban planning influences the utility of the land and infrastructure using a project graded with a rubric. Students' ability will be assessed by the number of points received on the grading rubric on the basis of: Exceeding Expectations (10 points); Meeting Expectations (7 - 9 points); or Failing to Meet Expectations (6 or fewer points). We expect at least 70% of the students will meet or exceed expectations for this outcome / method.

Outcome 3 Method 2 Result

During the current assessment year, 11 students were evaluated by course instructors on their ability to create a land-use plan in order to demonstrate how effective urban planning influences the utility of the land and infrastructure using a project graded with a rubric from the course: Planning Practicum (GEO 4338). The course instructors found that 91% of the students met (27%) or exceeded (64%) expectations for this outcome and method. The target of 70% of the students meeting or exceeding expectations was achieved.

Outcome 4

Description

The academic program will promote and realize gains in student success.

Outcome 4 Method 1

Student retention success will be measured by observing one year retention rates of students enrolled in the academic program from their freshman to sophomore year. Data will be obtained from the university's certified enrollment records at the end of the fall semester. Rates of retention success will be expected to be at or above the university average for this level of program.

Outcome 4 Method 1 Result

Student retention success measured by freshman-to-sophomore one-year retention rate (89%) for students enrolled in Geography: Urban and Regional Planning (fall 2023 cohort semester) met the expectation to be at or above the University average (80%) for this level of program.

Outcome 4 Method 2

Student graduation success will be measured by observing the number of graduates from the academic program in during the fall, spring, and summer semesters and comparing the number of graduates to the number of students enrolled in the program. Data will be obtained from the university's certified enrollment records for the fall, spring, and summer semesters. The number of graduates is expected to be at or above the university rate of graduation for this level of program.

Outcome 4 Method 2 Result

The current assessment year graduation rate success for Geography: Urban and Regional Planning students of 12% (8 graduates / 66 students enrolled) did not meet expectations of exceeding the University graduation rate average of 22% (6685 graduates / 30619 students enrolled).

Outcome 5

Description

The academic program will promote and realize efficiency in the delivery and completion of the program.

Outcome 5 Method 1

Delivery efficiency will be measured by reviewing the total number students enrolled in the academic program during the fall semester. Data will be obtained from the university's certified enrollment records at the end of the fall semester. Delivery efficiency will be expected to increase from year to year.

Outcome 5 Method 1 Result

Delivery efficiency will be measured by reviewing the total number of students enrolled in the academic program during the fall semester. Data will be obtained from the university's certified enrollment records at the end of the fall semester. Delivery efficiency will be expected to increase from year to year.

Outcome 5 Method 2

Completion efficiency will be measured by observing the average time-to-completion for students in the academic program. Data will be obtained from the university's certified enrollment records for the fall semester. The time-to-completion of graduates is expected to be at or below the university average for this level of program.

Outcome 5 Method 2 Result

Completion efficiency measured by the average time to completion (native students) majoring in Geography: Urban and Regional Planning Studies for the current assessment year (4.2 years) met the expectation to be at or below the University average (4.4 years) for this level of program.

Approval History

Approval history details

Date and time approved	Approver	Approval event
9/21/2024 at 2:31 PM	Dr. Injeong Jo i_j13	Outcomes Data Entry Submittal
9/26/2024 at 3:08 PM	Dr. Jennifer Jensen jj41	Outcomes Level 1 Approval
10/2/2024 at 11:09 AM	Dr. Elizabeth Erhart ee10	Outcomes Audit
11/14/2024 at 10:30 AM	Dr. Mary C Brennan mb18	Outcomes Level 2 Approval
5/15/2025 at 1:58 PM	Dr. Elizabeth Erhart ee10	Results Data Entry Submittal
5/16/2025 at 7:41 AM	Dr. Jennifer Jensen jj41	Results Level 1 Approval
5/29/2025 at 9:20 AM	Dr. Elizabeth Erhart ee10	Results Audit
5/30/2025 at 12:22 PM	Dr. Mary C Brennan mb18	Results Level 2 Approval

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Geography (MAGeo/MS)

- **Assessment period:** 2024-2025
- **Outcomes status:** Complete
- **Results status:** Complete

Program code: 45.07

Outcome type: Student Learning (GR)

Degree: Masters

Department: Geography

Program: Geography (MAGeo/MS)

Mission Statement and Coordinator

Mission Statement

The Master of Applied Geography (MAGeo) degree is designed to prepare students to use their skills and background knowledge to solve real-world problems with geographic dimensions and the Master of Science (MS) degree in Geography is designed to provide students with exposure to geographic theory and research at the pre-doctoral level. MAGeo students will be educated in the process of applied research in a spatial context culminating in the completion of a directed research project and MS students will be educated in the process of geographic research culminating in the completion of original research in the form of a MS thesis.

Coordinator

Ron Hagelman

Evidence of Improvement and Action Plan

Evidence of Improvement

During the current assessment year, we maintained the instructional strategy introduced last year to emphasize increased class discussion of faculty-assigned readings to deepen students' understanding of geographic concepts, research methods, and analytic techniques. We report continued strong performance in Outcome 1 - Method 1 and Method 2 this year with 100% of students meeting or exceeding expectations, maintaining the gains achieved in the previous year. Outcome 2 - Method 1 also showed strong results, with 100% of students meeting or exceeding expectations. Outcome 2 - Method 2 (86%) was lower than last year but still above our target value. Additionally, Outcomes 3 - Method 1 and Method 2 both achieved 100% success rates. These results suggest that the strategies

aimed at fostering analytical thinking and engagement with geographic literature continue to be effective. While the program's completion efficiency, Outcome 5 - Method 2 (measured by average years to completion of the degree) is higher than the university average, this is due to a single student outlier who took five years to complete the degree, rather than reflecting a broader trend in student progression. Our delivery efficiency, Outcome 5 - Method 1 (measured by comparing the number of students enrolled this year to the number enrolled last year), is up compared to last year and is greater than the university average.

Action Plan

The evidence of improvement indicated above suggests we continue the instructional strategies implemented in the previous year. Additionally, we will focus on improving our first-year student retention rate and our graduation rate (Outcome 4 - Method 1 and Method 2, respectively). Both retention and graduation rates fell slightly below their corresponding university averages last year, but if we retained one more student or graduated 3 more students, we would exceed the university averages. To achieve these improvements, we will focus advising efforts on supporting student's academic needs and providing invitations to program-related events that foster a sense of academic community and belonging in the program.

Outcome 1

Description

Students will demonstrate their knowledge of geographic concepts, research methods and analytic techniques as well as their knowledge of the geographer's perspective on conducting and completing research on a wide range of scholarly and applied geographic topics.

Outcome 1 Method 1

Students taking Geographical Analysis (GEO 5309) will be evaluated by course instructors on their knowledge of geographic concepts, research methods and analytic techniques using an embedded course assignment graded with a rubric during and / or at the end of the semester. Students' knowledge will be assessed by the percentage of points received on the grading rubric on the basis of: Exceeding Expectations (100% - 90%); Meeting Expectations (89% - 80%); or Failing to Meet Expectations (79% or less). We expect at least 80% of the students will meet or exceed expectations for this outcome / method.

Outcome 1 Method 1 Result

During the current assessment year, 25 graduate students were evaluated by the course instructor on their knowledge of geographic concepts, research methods and analytic techniques using an embedded course assignment. The course instructor found that 100%

of the graduate students met (8%) or exceeded (92%) expectations for this outcome / method. The target of 80% of the students meeting or exceeding expectations was achieved.

Outcome 1 Method 2

Students taking Geographical Analysis (GEO 5309) will be evaluated by course instructors on their knowledge of the geographer's perspective on conducting and completing research on a wide range of scholarly and applied geographic topics using an embedded course assignment graded with a rubric during and / or at the end of the semester. Students' knowledge will be assessed by the percentage of points received on the grading rubric on the basis of: Exceeding Expectations (100% - 90%); Meeting Expectations (89% - 80%); or Failing to Meet Expectations (79% or less). We expect at least 80% of the students will meet or exceed expectations for this outcome / method.

Outcome 1 Method 2 Result

During the current assessment year, 25 graduate students were evaluated by course instructors on their knowledge of the geographer's perspective on conducting and completing research on a wide range of scholarly and applied geographic topics using an embedded course assignment. The course instructors found that 100% of the graduate students met (8%) or exceeded (92%) expectations for this outcome / method. The target of 80% of the students meeting or exceeding expectations was achieved.

Outcome 2

Description

Students will demonstrate their knowledge of multivariate quantitative methods including basic descriptive and inferential statistical techniques as well as their knowledge of advanced topics such as regression analysis and non-parametric analytical methods, spatial statistics and factor analysis.

Outcome 2 Method 1

Multivariate Quantitative Methods (GEO 5301) course instructors will evaluate their students' knowledge of knowledge of multivariate quantitative methods including basic descriptive and inferential statistical techniques using questions embedded in the course midterm exam. Students' knowledge will be assessed on the basis of: Exceeding Expectations (100% - 90%); Meeting Expectations (89% - 80%); or Failing to Meet Expectations (79% or less). We expect at least 80% of the students will meet or exceed expectations for this outcome / method.

Outcome 2 Method 1 Result

During the current assessment year, 7 graduate students were evaluated by course instructors on their knowledge of multivariate quantitative methods including basic descriptive and inferential statistical techniques using embedded exam questions. The course instructors found that 100% of the graduate students met (29%) or exceeded (71%) expectations for this outcome / method. The target of 80% of the students meeting or exceeding expectations was achieved.

Outcome 2 Method 2

Students taking Multivariate Quantitative Methods (GEO 5301) will be evaluated by course instructors on their knowledge of advanced statistical topics such as regression analysis and non-parametric analytical methods, spatial statistics and factor analysis using questions embedded in the course final exam. Students' knowledge will be assessed on the basis of: Exceeding Expectations (100% - 90% embedded test questions answered correctly); Meeting Expectations (89% - 80% embedded test questions answered correctly); or Failing to Meet Expectations (79% or fewer embedded test questions answered correctly). We expect at least 80% of the students will meet or exceed expectations for this outcome / method.

Outcome 2 Method 2 Result

During the current assessment year, 7 graduate students were evaluated by course instructors on their knowledge of advanced statistical topics such as regression analysis and non-parametric analytical methods, spatial statistics and factor analysis using embedded exam

questions. The course instructors found that 86% of the graduate students met (29%) or exceeded (57%) expectations for this outcome / method. The target of 80% of the students meeting or exceeding expectations was achieved.

Outcome 3

Description

Students will demonstrate their knowledge of the basic components of research grant proposals and their ability to critique research designs and manuscripts as well as their ability to produce a draft research proposal for their thesis.

Outcome 3 Method 1

Students taking Advanced Geographic Research Design (GEO 7300) will be evaluated by course instructors on their knowledge of the basic components of research grant proposals and their ability to critique research designs and manuscripts using an embedded class assignment graded with a rubric during and / or at the end of the semester. Students' knowledge will be assessed by the percentage of points received on the grading rubric on

the basis of: Exceeding Expectations (100% - 90%); Meeting Expectations (89% - 80%); or Failing to Meet Expectations (79% or less). We expect at least 80% of the students will meet or exceed expectations for this outcome / method.

Outcome 3 Method 1 Result

During the current assessment year, 3 graduate students were evaluated by course instructors on their ability to critique research designs and manuscripts using embedded class assignments. The course instructors found that 100% of the graduate students met (0%) or exceeded (100%) expectations for this outcome and method.

Outcome 3 Method 2

Students taking Advanced Geographic Research Design (GEO 7300) will be evaluated by course instructors on their ability to produce a draft research proposal for their thesis graded with a rubric at the end of the semester. Students' knowledge will be assessed by the percentage of points received on the grading rubric on the basis of: Exceeding Expectations (100% - 90%); Meeting Expectations (89% - 80%); or Failing to Meet Expectations (79% or less). We expect at least 80% of the students will meet or exceed expectations for this outcome / method.

Outcome 3 Method 2 Result

During the current assessment year, 3 graduate students were evaluated by course instructors on their ability to produce a draft research proposal for their thesis. The course instructors found that 100% of the graduate students met (0%) or exceeded (100%) expectations for this outcome and method.

Outcome 4

Description

The academic program will promote and realize gains in student success.

Outcome 4 Method 1

Student retention success will be measured by observing one year retention rates of students enrolled in the academic program from their first to second year. Data will be obtained from the university's certified enrollment records at the end of the fall semester. Rates of retention success will be expected to be at or above the university average for this level of program.

Outcome 4 Method 1 Result

Student retention success measured by first-to-second year retention rate (78%) for students enrolled in Geography: MAGEo / MS (fall 2022 cohort semester) did not meet the expectation to be at or above the University average (85%) for this level of program.

Outcome 4 Method 2

Student graduation success will be measured by observing the number of graduates from the academic program in during the fall, spring, and summer semesters and comparing the number of graduates to the number of students enrolled in the program. Data will be obtained from the university's certified enrollment records for the fall, spring, and summer semesters. The number of graduates is expected to be at or above the university rate of graduation for this level of program.

Outcome 4 Method 2 Result

The current year graduation success rate for Geography: MAGeo / MS students of 36% (16 graduates / 44 students enrolled) did not meet the expectation of exceeding the University graduation rate average of 41% (1336 graduates / 3283 students enrolled).

Outcome 5

Description

The academic program will promote and realize efficiency in the delivery and completion of the program.

Outcome 5 Method 1

Delivery efficiency will be measured by reviewing the total number students enrolled in the academic program during the fall semester. Data will be obtained from the university's certified enrollment records at the end of the fall semester. Delivery efficiency will be expected to increase from year to year.

Outcome 5 Method 1 Result

Delivery efficiency measured by the number of students (44) majoring in Geography: MAGeo / MS in the fall of 2024 compared to the number of majors (34) in the fall 2023 met the expectation of an increase in the number of students from year to year.

Outcome 5 Method 2

Completion efficiency will be measured by observing the average time-to-completion for students in the academic program. Data will be obtained from the university's certified enrollment records for the fall semester. The time-to-completion of graduates is expected to be at or below the university average for this level of program.

Outcome 5 Method 2 Result

Completion efficiency measured by the average time to completion for students majoring in Geography: MAGeo / MS for the current assessment year (2.7 years) did not meet the expectation to be at or below the University average (2.5 years) for this level of program.

Approval History

Approval history details

Date and time approved	Approver	Approval event
9/16/2024 at 5:55 AM	Dr. Injeong Jo i_j13	Outcomes Data Entry Submittal
9/18/2024 at 3:27 PM	Dr. Jennifer Jensen jj41	Outcomes Level 1 Approval
10/2/2024 at 11:26 AM	Dr. Elizabeth Erhart ee10	Outcomes Audit
11/14/2024 at 10:29 AM	Dr. Mary C Brennan mb18	Outcomes Level 2 Approval
5/15/2025 at 1:39 PM	Dr. Elizabeth Erhart ee10	Results Data Entry Submittal
5/16/2025 at 7:39 AM	Dr. Jennifer Jensen jj41	Results Level 1 Approval
5/29/2025 at 9:16 AM	Dr. Elizabeth Erhart ee10	Results Audit
5/30/2025 at 12:04 PM	Dr. Mary C Brennan mb18	Results Level 2 Approval

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GEO 1305 (Meteorology)

- **Assessment period:** 2024-2025
- **Outcomes status:** Complete
- **Results status:** Complete

Program code: 3

Outcome type: General Education

Degree: Other

Department: Geography

Program: GEO 1305 (Meteorology)

Mission Statement and Coordinator

Mission Statement

The mission of the general education core curriculum at Texas State University is to provide students with a broad academic foundation in the component areas of communication; mathematics; life and physical sciences; language, philosophy and culture; creative arts; American history; government/political science; and social and behavioral sciences.

Life and Physical Sciences Mission:

The mission of the life and physical sciences component is to focus on describing, explaining, and predicting natural phenomena using the scientific method.

Coordinator

Injeong Jo

Evidence of Improvement and Action Plan

Evidence of Improvement

During the current assessment year, all outcomes met their target success measurements. We implemented an action plan that had the course instructor provide additional examples and explanations and continue use of the textbook that emphasized mathematical concepts with the specific goal of strengthening student's empirical and quantitative skills (Outcome 4). It was expected that improvements in Outcome 4 would also lead to improvements in Outcome 2 and Outcome 3. The results of this action plan led to a slight increase in average scores for Outcome 4 (77%-78%), but larger increases in average scores for Outcomes 2

(79% to 82%) and 3 (78%-83%). Additionally, the average scores for Outcome 1 increased, indicating improved understanding of the interactions among natural phenomena of the physical world.

Action Plan

The success measurements indicated above support the continuation of the instructional strategies implemented in the previous year. The Teamwork competency (Outcome 5) was the only outcome to decrease (from 84% to 76%) because students avoided group assignments. In the upcoming year the importance of working together in groups will be emphasized as a work-related skill. To reinforce this idea, students will be encouraged to form study groups to work on mastering the class material. Also, Instructors will attempt to raise the level of critical thinking over rote memorization by introducing feedback discussions during classes with the goal of linking multiple concepts covered during the semester. Instructors will emphasize the importance of study habits and time management as keys to improving performance in Outcomes 3 and 5.

Outcome 1

Component: Life and Physical Sciences

Description

Students will describe interactions among natural phenomena and the implications of scientific principles on the physical world and on human experiences.

Outcome 1 Method 1

Students taking Meteorology (GEO 1305) will be evaluated during and/or at the end of the semester by course instructors on their knowledge of the natural phenomena of meteorology using embedded test questions administered during Meteorology (GEO 1305) class examinations. Students' knowledge will be assessed on the basis of exceeding, meeting or

failing to meet expectations, which will be determined by the students' total score on the embedded test questions. (90% - 100% = exceeded expectations, 70% - 89% = met expectations, 69% or below = failed to meet expectations). We expect at least 70% of the students will meet or exceed expectations for this outcome.

Outcome 1 Method 1 Result

During the current assessment period, 1422 undergraduate students were evaluated by their course instructors on their ability to describe interactions among natural phenomena and the implications of scientific principles on the physical world and on human experiences using embedded exam questions. The course instructors found that 85% of the students met (59%) or exceeded (26%) expectations. The target of 70% of the students meeting or exceeding expectations was achieved.

Outcome 2

Competency: Critical Thinking

Description

Students will demonstrate creative thinking, innovation, inquiry, analysis, evaluation and synthesis of information.

Outcome 2 Method 1

Students taking Meteorology (GEO 1305) will be evaluated during and/or at the end of the semester by course instructors on their ability to apply the scientific method to the study of the natural phenomena of meteorology using climate and weather data with embedded test questions administered during Meteorology (GEO 1305) class examinations. Students' knowledge will be assessed on the basis of exceeding, meeting or failing to meet expectations, which will be determined by the students' total score on the embedded test questions. (90% - 100% = exceeded expectations, 70% - 89% = met expectations, 69% or below = failed to meet expectations). We expect at least 70% of the students will meet or exceed expectations for this outcome.

Outcome 2 Method 1 Result

During the current assessment period, 1422 undergraduate students were evaluated by their course instructors on their ability to demonstrate creative thinking innovation, inquiry, and analysis, evaluation and synthesis of information using embedded exam questions. The course instructors found that 82% of the students met (58%) or exceeded (24%) expectations. The target of 70% of the students meeting or exceeding expectations was achieved.

Outcome 3

Competency: Communication

Description

Students will effectively develop, interpret and express ideas through written, oral and visual communication.

Outcome 3 Method 1

Students taking Meteorology (GEO 1305) will be evaluated during and/or at the end of the semester by course instructors on their ability to use writing, speech and visualizations to express ideas about the natural phenomena of meteorology using an out-of-class project / presentation with grading rubric from the course: Meteorology (GEO 1305). Students' ability will be assessed on the basis of exceeding, meeting or failing to meet expectations, which will be determined by the students' total score on an out-of-class project with grading rubric

(90% - 100% = exceeded expectations, 70% - 89% = met expectations, 69% or below = failed to meet expectations). We expect at least 70% of the students will meet or exceed expectations for this outcome.

Outcome 3 Method 1 Result

During the current assessment period, 1380 undergraduate students were evaluated by their course instructors on their ability to effectively develop, interpret and express ideas through written, oral and visual communication using an out-of-class assignment. The course instructors found that 83% of the students met (39%) or exceeded (44%) expectations. The target of 70% of the students meeting or exceeding expectations was achieved.

Outcome 4

Competency: Empirical and Quantitative Skills

Description

Students will manipulate and analyze numerical data or observable facts resulting in informed conclusions.

Outcome 4 Method 1

Students taking Meteorology (GEO 1305) will be evaluated during and/or at the end of the semester by course instructors on their ability to manipulate and analyze numerical meteorological data and observable climatic and weather facts using an out-of-class project with grading rubric from the course: Meteorology (GEO 1305). Students' ability will be assessed on the basis of exceeding, meeting or failing to meet expectations, which will be determined by the students' total score on an out-of-class project with grading rubric (90% - 100% = exceeded expectations, 70% - 89% = met expectations, 69% or below = failed to meet expectations). We expect at least 70% of the students will meet or exceed expectations for this outcome.

Outcome 4 Method 1 Result

During the current assessment period, 1422 undergraduate students were evaluated by their course instructors on their ability to manipulate and analyze numerical data or observable facts resulting in informed conclusions using embedded exam questions. The course instructors found that 78% of the students met (55%) or exceeded (23%) expectations. The target of 70% of the students meeting or exceeding expectations was achieved.

Outcome 5

Competency: Teamwork

Description

Students will recognize different points of view and work effectively with others to support a shared purpose or goal.

Outcome 5 Method 1

Students taking Meteorology (GEO 1305) will be evaluated during and/or at the end of the semester by course instructors on their ability to work effectively with others to support a shared purpose and goal using an out-of-class group project with grading rubric from the course: Meteorology (GEO 1305). Students' ability will be assessed on the basis of exceeding, meeting or failing to meet expectations, which will be determined by the students' total score on an out-of-class group project with grading rubric (90% - 100% = exceeded expectations, 70% - 89% = met expectations, 69% or below = failed to meet expectations). We expect at least 70% of the students will meet or exceed expectations for this outcome.

Outcome 5 Method 1 Result

During the current assessment period, 1349 undergraduate students were evaluated by their course instructors on their ability to recognize different points of view and work effectively with others to support a shared purpose or goal using an out-of-class assignment. The course instructors found that 76% of the students met (55%) or exceeded (21%) expectations. The target of 70% of the students meeting or exceeding expectations was achieved.

Approval History

Approval history details

Date and time approved	Approver	Approval event
9/16/2024 at 7:14 AM	Dr. Injeong Jo i_j13	Outcomes Data Entry Submittal
9/18/2024 at 3:32 PM	Dr. Jennifer Jensen jj41	Outcomes Level 1 Approval
11/9/2024 at 11:32 AM	Dr. Amy Weimer a_w377	Outcomes Audit
12/13/2024 at 1:31 PM	Dr. Jeff M Housman jh212	Outcomes Level 2 Approval
5/15/2025 at 1:39 PM	Dr. Elizabeth Erhart ee10	Results Data Entry Submittal
5/16/2025 at 7:38 AM	Dr. Jennifer Jensen jj41	Results Level 1 Approval
5/30/2025 at 4:08 PM	Dr. Amy Weimer a_w377	Results Audit
7/28/2025 at 10:18 AM	Dr. Jeff M Housman jh212	Results Level 2 Approval

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Geography Natural Resources and Environmental Studies (BS)

- **Assessment period:** 2024-2025
- **Outcomes status:** Complete
- **Results status:** Complete

Program code: 3.01

Outcome type: Student Learning (UG)

Degree: Undergraduate

Department: Geography

Program: Geography Natural Resources and Environmental Studies (BS)

Mission Statement and Coordinator

Mission Statement

The Natural Resource and Environmental Studies program prepares students for a wide variety of government and private sector occupations relating to resource conservation and/or environmental management. In addition to general and specialized lecture-format courses, the program offers a variety of project-based lab and field-trip experiences, career development through advising, job-shadowing and internships as well as team building and leadership opportunities available by joining one or more Geography and Environmental Studies department student organizations. The Natural Resource and Environmental Studies program also prepares students for graduate programs in resource and environmental studies. Finally, the Natural Resource and Environmental Studies program provides students with the foundation for a liberal education, preparing graduates to think independently, to choose freely, and to base personal and professional decisions on a broad understanding of the Earth's physical and cultural landscapes in order to live full, rewarding lives.

Coordinator

Brian J Cooper

Evidence of Improvement and Action Plan

Evidence of Improvement

The instructional strategies introduced in the previous cycle and implemented during the current assessment year effectively supported student learning as evidenced by outcomes comparable to those of last year. Outcome 1 - Method 2, and Outcome 2 - Method 2 had

slight improvements over last year and indicate that efforts to help students locate and explain major physical and cultural features of Earth are working. Outcome 2 - Method 1 had a sizeable increase from 84% to 89% compared to last year, reflecting improved student understanding of descriptive statistics, bi-variate relationships, and inferential statistics. The Environmental Management capstone course had slight improvements in its Outcome 3 - Method 1 and Method 2, demonstrating consistency and modest improvement. The retention and graduation rates noted in Outcome 4 - Method 1 and Method 2 (85% and 28%, respectively) exceeded the corresponding university rates.

Action Plan

The success measurements indicated above lead to the conclusion that the instructional strategies implemented in the previous year will be continued. Our delivery efficiency, Outcome 5 - Method 1 (measured as the number of students enrolled in the program vs the number enrolled last year) decreased slightly and our completion efficiency, Outcome 5 - Method 2 (measured as the average time to degree completion) is slightly larger than the university average (4.5 years vs 4.4 years). For the next assessment year, we will focus on improving out delivery and completion efficiencies through recruiting efforts and To achieve these improvements in the next assessment year, we will focus advising efforts that support student's academic needs and provide invitations to program-related events that foster a sense of academic community and belonging in the program.

Outcome 1

Description

Students will demonstrate their knowledge of the major physical and cultural features of the Earth and their ability to locate examples of these major features, such as mountains, rivers, oceans, political boundaries, agricultural regions and language groups, on a map.

Outcome 1 Method 1

Students taking World Geography (GEO 1310) will be evaluated during and/or at the end of the semester by course instructors on the students' knowledge of the major physical and cultural features of the Earth using embedded test questions administered during World Geography (GEO 1310) class examinations. Students' knowledge will be assessed on the basis of: Exceeding Expectations (10 embedded test questions answered correctly); Meeting Expectations (7 - 9 embedded test questions answered correctly); or Failing to Meet Expectations (6 or fewer embedded test questions answered correctly). We expect at least 70% of the students will meet or exceed expectations for this outcome / method.

Outcome 1 Method 1 Result

During the current assessment year, 690 undergraduate students were evaluated on their knowledge of the major physical features of the Earth by their course instructors using embedded test questions from the course: World Geography (GEO 1310). The course

instructors found that 86% of the students met (45%) or exceeded (41%) expectations for this outcome / method. The target of 70% of the students meeting or exceeding expectations for this outcome / method was achieved.

Outcome 1 Method 2

Students taking World Geography (GEO 1310) will be evaluated during and/or at the end of the semester by course instructors on the students' ability to locate examples of major physical and cultural features of the Earth on a map using embedded test questions administered during World Geography (GEO 1310) class examinations. Students' ability will be assessed on the basis of: Exceeding Expectations (10 embedded test questions answered correctly); Meeting Expectations (7 - 9 embedded test questions answered correctly); or Failing to Meet Expectations (6 or fewer embedded test questions answered correctly). We expect at least 70% of the students will meet or exceed expectations for this outcome / method.

Outcome 1 Method 2 Result

During the current assessment year, 690 undergraduate students were evaluated on their ability to locate examples of major physical features of the Earth on a map by their course instructors using embedded test questions from the course: World Geography (GEO 1310). The course instructors found that 86% of the students met (45%) or exceeded (41%) expectations for this outcome / method. The target of 70% of the students meeting or exceeding expectations for this outcome / method was achieved.

Outcome 2

Description

Students will demonstrate knowledge of research methods used by geographers and their ability to use statistical software to solve geographic problems.

Outcome 2 Method 1

Students taking Research Methods in Geography (GEO 3301) will be evaluated during and/or at the end of the semester by course instructors on the students' knowledge of research methods using embedded test questions administered during Research Methods in Geography (GEO 3301) class examinations. Students' knowledge will be assessed on the basis of: Exceeding Expectations (100% - 90% embedded test questions answered correctly); Meeting Expectations (89% - 70% embedded test questions answered correctly); or Failing to Meet Expectations (69% or fewer embedded test questions answered correctly). We expect at least 70% of the students will meet or exceed expectations for this outcome / method.

Outcome 2 Method 1 Result

During the current assessment year, 102 undergraduate students were evaluated on their knowledge of research methods by their course instructor using embedded test questions from the course: Research Methods for Geography (GEO 3301). The course instructor found that 89% of the students met (42%) or exceeded (47%) expectations on embedded knowledge questions about descriptive statistics, bi-variate relationships, and inferential statistics for this outcome / method. The target of 70% of the students meeting or exceeding expectations for this outcome / method was achieved.

Outcome 2 Method 2

Students taking Research Methods in Geography (GEO 3301) will be evaluated during and/or at the end of the semester by course instructors on the students' ability to use statistical software to solve geographic problems using a project graded with rubric. Students' ability will be assessed by the percentage of points received on the grading rubric on the basis of: Exceeding Expectations (100% - 90%); Meeting Expectations (89% - 70%); or Failing to Meet Expectations (69% or less). We expect at least 70% of the students will meet or exceed expectations for this outcome / method.

Outcome 2 Method 2 Result

During the current assessment year, 102 undergraduate students were evaluated on their ability to use statistical software to solve geographic problems using a project graded with rubric from the course: Research Methods for Geography (GEO 3301). The course instructor found that 89%

of the students met (42%) or exceeded (47%) expectations for this outcome / method. The target of 70% of the students meeting or exceeding expectations for this outcome / method was achieved.

Outcome 3

Description

Students will demonstrate their knowledge of resource and environmental issues and their ability to demonstrate the role that geography plays in analyzing resource / environmental degradation problems and improving resource / environmental management strategies.

Outcome 3 Method 1

Students taking Environmental Management (GEO 4313) will be evaluated during and/or at the end the semester by course instructors on the students' knowledge of resource and environmental issues using a selected course assignment graded with a rubric in Environmental Management (GEO 4313) class. A specific assignment will target areas that need improvement as identified by the previous year's assessment. Students' knowledge

will be assessed on the basis of: Exceeding Expectations (10 points); Meeting Expectations (7 - 9 points); or Failing to Meet Expectations (6 or fewer points). We expect at least 70% of the students will meet or exceed expectations for this outcome / method.

Outcome 3 Method 1 Result

During the current assessment year, 71 undergraduate students were evaluated by their course instructor on their knowledge of resource and environmental issues using a selected course assignment graded with a rubric in Environmental Management (GEO 4313) class. The course instructor found that 99% of the students met (15%) or exceeded (83%) performance expectations. The target of 70% of the students meeting or exceeding expectations was achieved.

Outcome 3 Method 2

Students taking Environmental Management (GEO 4313) will be evaluated during and/or at the end of the semester by course instructors on the students' ability to demonstrate the role that geography plays in analyzing resource / environmental degradation problems and improving resource / environmental management strategies using a project graded with a rubric. Students' ability will be assessed by the number of points received on the grading rubric on the basis of: Exceeding Expectations (10 points); Meeting Expectations (7 - 9 points); or Failing to Meet Expectations (6 or fewer points). We expect at least 70% of the students will meet or exceed expectations for this outcome / method.

Outcome 3 Method 2 Result

During the current assessment year, 71 undergraduate students were evaluated by their course instructor using rubric-graded project (a simplified Environmental Impact Statement) from the course: Environmental Management (GEO 4313). The course instructor found that 99% of the students met (13%) or exceeded (86%) expectations. The target of 70% of the students meeting or exceeding expectations was achieved.

Outcome 4

Description

The academic program will promote and realize gains in student success.

Outcome 4 Method 1

Student retention success will be measured by observing one year retention rates of students enrolled in the academic program from their freshman to sophomore year. Data will be obtained from the university's certified enrollment records at the end of the fall semester. Rates of retention success will be expected to be at or above the university average for this level of program.

Outcome 4 Method 1 Result

Student retention success measured by freshman-to-sophomore one-year retention rate (85%) for students enrolled in Geography: Resource and Environmental Studies met the expectation to be at or above the University average (80%) for this level of program.

Outcome 4 Method 2

Student graduation success will be measured by observing the number of graduates from the academic program during the fall, spring, and summer semesters and comparing the number of graduates to the number of students enrolled in the program. Data will be obtained from the university's certified enrollment records for the fall, spring, and summer semesters. The number of graduates is expected to be at or above the university rate of graduation for this level of program.

Outcome 4 Method 2 Result

The current year graduation rate success for Geography: Resource and Environmental Studies students of 28% (58 graduates / 206 students enrolled) met expectations of exceeding the University graduation rate average of 19% (6685 graduates / 30619 students enrolled).

Outcome 5

Description

The academic program will promote and realize efficiency in the delivery and completion of the program.

Outcome 5 Method 1

Delivery efficiency will be measured by reviewing the total number students enrolled in the academic program during the fall semester. Data will be obtained from the university's certified enrollment records at the end of the fall semester. Delivery efficiency will be expected to increase from year to year.

Outcome 5 Method 1 Result

Delivery efficiency measured by the number of students (206) majoring in Geography: Resource and Environmental Studies in the current year compared to the number of majors (218) in the previous year did not meet the expectation of an increase in the number of students from year to year.

Outcome 5 Method 2

Completion efficiency will be measured by observing the average time-to-completion for students in the academic program. Data will be obtained from the university's certified enrollment records for the fall semester. The time-to-completion of graduates is expected to be at or below the university average for this level of program.

Outcome 5 Method 2 Result

Completion efficiency measured by the average time to completion (native students) majoring in Geography: Resource and Environmental Studies for the current assessment year (4.5 years) did not meet the expectation to be at or below the University average (4.4 years) for this level of program.

Approval History

Approval history details

Date and time approved	Approver	Approval event
9/21/2024 at 2:24 PM	Dr. Injeong Jo i_j13	Outcomes Data Entry Submittal
9/26/2024 at 2:58 PM	Dr. Jennifer Jensen jj41	Outcomes Level 1 Approval
10/2/2024 at 11:04 AM	Dr. Elizabeth Erhart ee10	Outcomes Audit
11/14/2024 at 10:30 AM	Dr. Mary C Brennan mb18	Outcomes Level 2 Approval
5/15/2025 at 1:58 PM	Dr. Elizabeth Erhart ee10	Results Data Entry Submittal
5/16/2025 at 7:40 AM	Dr. Jennifer Jensen jj41	Results Level 1 Approval
5/29/2025 at 9:18 AM	Dr. Elizabeth Erhart ee10	Results Audit
5/30/2025 at 12:21 PM	Dr. Mary C Brennan mb18	Results Level 2 Approval

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Geography Natural Resources and Environmental Studies (MAGeo)

- **Assessment period:** 2024-2025
- **Outcomes status:** Complete
- **Results status:** Complete

Program code: 3.01

Outcome type: Student Learning (GR)

Degree: Masters

Department: Geography

Program: Geography Natural Resources and Environmental Studies (MAGeo)

Mission Statement and Coordinator

Mission Statement

The Master of Applied Geography (MAGeo) degree in Natural Resources and Environmental Studies is designed to prepare students to use their skills and background knowledge to solve real-world problems with geographic dimensions within environmental geography. Students will be educated in the process of applied research in a spatial context culminating in the completion of a directed research project.

Coordinator

Ron Hagelman

Evidence of Improvement and Action Plan

Evidence of Improvement

During the current assessment year, we maintained the instructional strategy introduced last year to emphasize increased class discussion of faculty-assigned readings to deepen students' understanding of geographic concepts, research methods, and analytic techniques (Outcome 1 - Method 1 and Method 2). We report continued strong performance in this outcome with 100% of students meeting or exceeding expectations, maintaining the gains achieved in the previous year. Outcome 2 - Method 1 also showed strong results, with 100% of students meeting or exceeding expectations. Outcome 2 - Method 2 (86%) was lower than last year but still above our target value. Our average program graduation rate (Outcome 4 - Method 2) was above the university average.

Action Plan

The success measurements in the outcomes indicated above support the continuation of current instructional strategies, but the shortcomings in Outcome 4 and Outcome 5 (all methods) highlight room for improvements. The program retention rate is low and below the university average for Masters programs due to the small number of students entering the program. Our average program delivery efficiency (measured as time to degree completion) is higher than the university average (4 years vs 2.5 years) due to the single student graduating from this program last year taking 4 years to complete their degree. In the upcoming year, we will focus on improving our first-year student retention rate (Outcome 4 - Method 1) which will have cascading effects on delivery and completion efficiency (Outcome 5 - Method 1 and Method 2). To achieve these improvements, we will focus advising efforts on supporting student's academic needs and providing invitations to program-related events that foster a sense of academic community and belonging in the program.

Outcome 1

Description

Students will demonstrate their knowledge of geographic concepts, research methods and analytic techniques as well as their knowledge of the geographer's perspective on conducting and completing research on a wide range of scholarly and applied geographic topics.

Outcome 1 Method 1

Students taking Geographical Analysis (GEO 5309) will be evaluated by course instructors on their knowledge of geographic concepts, research methods and analytic techniques using an embedded course assignment graded with a rubric during and / or at the end of the semester. Students' knowledge will be assessed by the percentage of points received on the grading rubric

on the basis of: Exceeding Expectations (100% - 90%); Meeting Expectations (89% - 80%); or Failing to Meet Expectations (79% or less). We expect at least 80% of the students will meet or exceed expectations for this outcome / method.

Outcome 1 Method 1 Result

During the current assessment year, 25 graduate students were evaluated by the course instructor on their knowledge of geographic concepts, research methods and analytic techniques using an embedded course assignment. The course instructor found that 100% of the students met (8%) or exceeded (92%) expectations for this outcome / method. The target of 80% of the students meeting or exceeding expectations was achieved.

Outcome 1 Method 2

Students taking Geographical Analysis (GEO 5309) will be evaluated by course instructors on their knowledge of the geographer's perspective on conducting and completing research on a wide range of scholarly and applied geographic topics using an embedded course assignment graded with a rubric during and / or at the end of the semester. Students' knowledge will be assessed by the percentage of points received on the grading rubric on the basis of: Exceeding Expectations (100% - 90%); Meeting Expectations (89% - 80%); or Failing to Meet Expectations (79% or less). We expect at least 80% of the students will meet or exceed expectations for this outcome / method.

Outcome 1 Method 2 Result

During the current assessment year, 25 graduate students were evaluated by course instructors on their knowledge of the geographer's perspective on conducting and completing research on a wide range of scholarly and applied geographic topics using an embedded course assignment. The course instructors found that 100% of the students met (8%) or exceeded (92%) expectations for this outcome / method. The target of 80% of the students meeting or exceeding expectations was achieved.

Outcome 2

Description

Students will demonstrate their knowledge of multivariate quantitative methods including basic descriptive and inferential statistical techniques as well as their knowledge of advanced topics such as regression analysis and non-parametric analytical methods, spatial statistics, and factor analysis.

Outcome 2 Method 1

Students taking Multivariate Quantitative Methods (GEO 5301) will be evaluated by course instructors on their knowledge of multivariate quantitative methods including basic descriptive and inferential statistical techniques using questions embedded in the course midterm exam. Students' knowledge will be assessed on the basis of: Exceeding Expectations (100% - 90% embedded test questions answered correctly); Meeting Expectations (89% - 80% embedded test questions answered correctly); or Failing to Meet Expectations (79% or fewer embedded test questions answered correctly). We expect at least 80% of the students will meet or exceed expectations for this outcome / method.

Outcome 2 Method 1 Result

During the current assessment year, 6 graduate students were evaluated by course instructors on their knowledge of multivariate quantitative methods including basic descriptive and inferential statistical techniques using embedded exam questions. The

course instructors found that 100% of the students met (67%) or exceeded (33%) expectations for this outcome and method. The target of 80% of the students meeting or exceeding expectations was achieved.

Outcome 2 Method 2

Students taking Multivariate Quantitative Methods (GEO 5301) will be evaluated by course instructors on their knowledge of advanced statistical topics such as regression analysis and non-parametric analytical methods, spatial statistics and factor analysis using questions embedded in the course final exam. Students' knowledge will be assessed on the basis of: Exceeding Expectations (100% - 90% embedded test questions answered correctly); Meeting Expectations (89% - 80% embedded test questions answered correctly); or Failing to Meet Expectations (79% or fewer embedded test questions answered correctly). We expect at least 80% of the students will meet or exceed expectations for this outcome / method.

Outcome 2 Method 2 Result

During the current assessment year, 7 graduate students were evaluated by course instructors on their knowledge of advanced statistical topics such as regression analysis and non-parametric analytical methods, spatial statistics and factor analysis using embedded exam questions. The course instructors found that 100% of the students met (29%) or exceeded (71%) expectations for this outcome and method. The target of 80% of the students meeting or exceeding expectations was achieved.

Outcome 3

Description

Students will demonstrate their ability to use their knowledge of the components of research design - including problem definition, theory, literature review, methodology and analysis - to prepare a draft research proposal as well as their ability to produce and present a 'defense-style' final research proposal.

Outcome 3 Method 1

Students taking Applied Research Design and Techniques (GEO 5300) will be evaluated by course instructors on their ability to use their knowledge of the components of research design - including problem definition, theory, literature review, methodology and analysis - to prepare a draft research proposal graded with a rubric during the midterm of the semester. Students' knowledge will be assessed by the percentage of points received on the grading rubric on the basis of: Exceeding Expectations (100% - 90%); Meeting Expectations (89% - 80%); or Failing to Meet Expectations (79% or less). We expect at least 80% of the students will meet or exceed expectations for this outcome / method.

Outcome 3 Method 1 Result

During the current assessment year, 14 graduate students were evaluated by course instructors on their ability to use their knowledge of the components of research design - including problem definition, theory, literature review, methodology and analysis - to prepare a draft research proposal graded with a rubric during the midterm of the semester. The course instructors found that 100% of the students met (14%) or exceeded (86%) expectations for this outcome and method. The target of 80% of the students meeting or exceeding expectations was achieved.

Outcome 3 Method 2

Students taking Applied Research Design and Techniques (GEO 5300) will be evaluated by course instructors on their ability to produce and present a 'defense-style' final research proposal graded with a rubric at the end of the semester. Students' knowledge will be assessed by the percentage of points received on the grading rubric on the basis of: Exceeding Expectations (100% - 90%); Meeting Expectations (89% - 80%); or Failing to Meet Expectations (79% or less). We expect at least 80% of the students will meet or exceed expectations for this outcome / method.

Outcome 3 Method 2 Result

During the current assessment year, 14 graduate students were evaluated by course instructors on their ability to produce a draft research proposal for their thesis. The course instructors found that 100% of the students met (14%) or exceeded (86%) expectations for this outcome and method.

Outcome 4

Description

The academic program will promote and realize gains in student success.

Outcome 4 Method 1

Student retention success will be measured by observing one year retention rates of students enrolled in the academic program from their first to second year. Data will be obtained from the university's certified enrollment records at the end of the fall semester. Rates of retention success will be expected to be at or above the university average for this level of program.

Outcome 4 Method 1 Result

Student retention success measured by first-to-second year retention rate (0%) for students enrolled in MAGEO: Resource and Environmental Studies (fall 2023 cohort semester) did not meet the expectation to be at or above the University average (85%) for this level of program.

Outcome 4 Method 2

Student graduation success will be measured by observing the number of graduates from the academic program during the fall, spring, and summer semesters and comparing the number of graduates to the number of students enrolled in the program. Data will be obtained from the university's certified enrollment records for the fall, spring, and summer semesters. The number of graduates is expected to be at or above the university rate of graduation for this level of program.

Outcome 4 Method 2 Result

The current year graduation rate success for Resource and Environmental Studies: MAGEo students of 100% (1 graduates / 1 student enrolled) met the expectation of exceeding the University graduation rate average of 41% (1336 graduates / 3283 students enrolled).

Outcome 5

Description

The academic program will promote and realize efficiency in the delivery and completion of the program.

Outcome 5 Method 1

Delivery efficiency will be measured by reviewing the total number of students enrolled in the academic program during the fall semester. Data will be obtained from the university's certified enrollment records at the end of the fall semester. Delivery efficiency will be expected to increase from year to year.

Outcome 5 Method 1 Result

Delivery efficiency measured by the number of students (1) majoring in MAGEo: Resource and Environmental Studies in the current year compared to the number of majors (11) in the previous year did not meet the expectation of an increase in the number of students from year to year.

Outcome 5 Method 2

Completion efficiency will be measured by observing the average time-to-completion for students in the academic program. Data will be obtained from the university's certified enrollment records for the fall semester. The time-to-completion of graduates is expected to be at or below the university average for this level of program.

Outcome 5 Method 2 Result

Completion efficiency measured by the average time to completion (native students) majoring in Resource and Environmental Studies: MAGEo for the current assessment year (4 years) did not meet the expectation to be at or below the University average (2.5 years) for this level of program.

Approval History

Approval history details

Date and time approved	Approver	Approval event
9/21/2024 at 2:27 PM	Dr. Injeong Jo i_j13	Outcomes Data Entry Submittal
9/26/2024 at 3:07 PM	Dr. Jennifer Jensen jj41	Outcomes Level 1 Approval
10/2/2024 at 11:07 AM	Dr. Elizabeth Erhart ee10	Outcomes Audit
11/14/2024 at 10:30 AM	Dr. Mary C Brennan mb18	Outcomes Level 2 Approval
5/15/2025 at 1:58 PM	Dr. Elizabeth Erhart ee10	Results Data Entry Submittal
5/16/2025 at 7:41 AM	Dr. Jennifer Jensen jj41	Results Level 1 Approval
5/29/2025 at 9:19 AM	Dr. Elizabeth Erhart ee10	Results Audit
5/30/2025 at 12:21 PM	Dr. Mary C Brennan mb18	Results Level 2 Approval

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Geography Water Resources (BS)

- **Assessment period:** 2024-2025
- **Outcomes status:** Complete
- **Results status:** Complete

Program code: 3.02

Outcome type: Student Learning (UG)

Degree: Undergraduate

Department: Geography

Program: Geography Water Resources (BS)

Mission Statement and Coordinator

Mission Statement

The Water Resources program provides students with a focused study of the physical, chemical, social, political, and economic factors of water resources from the geographic perspective in preparation for employment in both the public and private sectors. As water resources become ever more critical to the nation - and in particular Texas - this program addresses the increasing need for professionals in this crucial field. In addition to general and specialized lecture-format courses, the program offers a variety of project-based lab and field-trip experiences, career development through advising, job-shadowing and internships as well as team-building and leadership opportunities available by joining one or more Geography and Environmental Studies department student organizations. The Water Resources program also prepares students for graduate studies. Finally, the Water Studies program provides students with the foundation for a liberal education, preparing graduates to think independently, to choose freely and to base personal and professional decisions on a broad understanding of the Earth's physical and cultural landscapes in order to live full, rewarding lives.

Coordinator

Brian J Cooper

Evidence of Improvement and Action Plan

Evidence of Improvement

The instructional strategies introduced in the previous cycle and implemented during the current assessment year effectively supported student learning as evidenced by outcomes comparable to those of last year. Outcome 1 - Method 2, and Outcome 2 - Method 2 had

slight improvements over last year and indicate that efforts to help students locate and explain major physical and cultural features of Earth are working. Outcome 2 - Method 1 had a sizeable increase from 84% to 89% compared to last year, reflecting improved student understanding of descriptive statistics, bi-variate relationships, and inferential statistics. The Water Resources capstone course increased the average score for Outcome 3 - Method 1, while the average score for Method 2 decreased. The retention and graduation rates noted in Outcome 4 - Method 1 (100%) and Method 2 (38%) exceeded the corresponding university rates and Method 2 was an improvement over last year. Completion efficiency, Outcome 5 - Method 2 (measured as time to degree completion), was less than the university average (4.0 years versus 4.4 years).

Action Plan

The success measurements indicated above support the continuation of the instructional strategies implemented in the previous year. For the next assessment year, we will focus on improving Outcome 3 - Method 2, where the percentage of students meeting or exceeding expectations decreased significantly (91% to 67%) during this year compared to last year. To address this, instructors will incorporate additional lecture time focused on the integration of water resource management concepts, along with structured assignments and case studies to reinforce critical thinking and analysis skills. The delivery efficiency (Outcome 4 - Method 1) was short of the target-there were fewer enrolled students in the program than in the previous year, but only by 2 students (26 versus 28 enrolled students).

Outcome 1

Description

Students will demonstrate their knowledge of the major physical and cultural features of the Earth and their ability to locate examples of these major features, such as mountains, rivers, oceans, political boundaries, agricultural regions and language groups, on a map.

Outcome 1 Method 1

Students taking World Geography (GEO 1310) will be evaluated during and/or at the end of the semester by course instructors on the students' knowledge of the major physical and cultural features of the Earth using embedded test questions administered during World Geography (GEO 1310) class examinations. Students' knowledge will be assessed on the basis of: Exceeding Expectations (10 embedded test questions answered correctly); Meeting Expectations (7 - 9 embedded test questions answered correctly); or Failing to Meet Expectations (6 or fewer embedded test questions answered correctly). We expect at least 70% of the students will meet or exceed expectations for this outcome / method.

Outcome 1 Method 1 Result

During the current assessment year, 690 undergraduate students were evaluated on their knowledge of the major physical and cultural features of the Earth by their course instructors using embedded test questions from the course: World Geography (GEO 1310). The course instructors found that 86% of the students met (45%) or exceeded (41%) expectations for this outcome / method. The target of 70% of the students meeting or exceeding expectations for this outcome / method was achieved.

Outcome 1 Method 2

Students taking World Geography (GEO 1310) will be evaluated during and/or at the end of the semester by course instructors on the students' ability to locate examples of major physical and cultural features of the Earth on a map using embedded test questions administered during World Geography (GEO 1310) class examinations. Students' ability will be assessed on the basis of: Exceeding Expectations (10 embedded test questions answered correctly); Meeting Expectations (7 - 9 embedded test questions answered correctly); or Failing to Meet Expectations (6 or fewer embedded test questions answered correctly). We expect at least 70% of the students will meet or exceed expectations for this outcome / method.

Outcome 1 Method 2 Result

During the current assessment year, 690 undergraduate students were evaluated on their ability to locate examples of major physical and cultural features of the Earth on a map by their course instructors using embedded test questions from the course: World Geography (GEO 1310). The course instructors found that 86% of the students met (45%) or exceeded (41%) expectations for this outcome / method. The target of 70% of the students meeting or exceeding expectations for this outcome and method was achieved.

Outcome 2

Description

Students will demonstrate knowledge of research methods used by geographers and their ability to use statistical software to solve geographic problems.

Outcome 2 Method 1

Students taking Research Methods in Geography (GEO 3301) will be evaluated during and/or at the end of the semester by course instructors on the students' knowledge of research methods using embedded test questions administered during Research Methods in Geography (GEO 3301) class examinations. Students' knowledge will be assessed on the basis of: Exceeding Expectations (100% - 90% embedded test questions answered correctly); Meeting Expectations (89% - 70% embedded test questions answered correctly);

or Failing to Meet Expectations (69% or fewer embedded test questions answered correctly). We expect at least 70% of the students will meet or exceed expectations for this outcome / method.

Outcome 2 Method 1 Result

During the current assessment year, 102 undergraduate students were evaluated on their knowledge of research methods by their course instructor using embedded test questions from the course: Research Methods for Geography (GEO 3301). The course instructor found that 89% of the students met (42%) or exceeded (47%) expectations on embedded knowledge questions about descriptive statistics, bi-variate relationships, and inferential statistics for this outcome / method. The target of 70% of the students meeting or exceeding expectations for this outcome and method was achieved.

Outcome 2 Method 2

Students taking Research Methods in Geography (GEO 3301) will be evaluated during and/or at the end of the semester by course instructors on the students' ability to use statistical software to solve geographic problems using a project graded with rubric. Students' ability will be assessed by the percentage of points received on the grading rubric on the basis of: Exceeding Expectations (100% - 90%); Meeting Expectations (89% - 70%); or Failing to Meet Expectations (69% or less). We expect at least 70% of the students will meet or exceed expectations for this outcome / method.

Outcome 2 Method 2 Result

During the current assessment year, 102 undergraduate students were evaluated on their ability to use statistical software to solve geographic problems using a project graded with rubric from the course: Research Methods for Geography (GEO 3301). The course instructor found that 92%

of the students met (26%) or exceeded (67%) expectations for this outcome / method. The target of 70% of the students meeting or exceeding expectations for this outcome and method was achieved.

Outcome 3

Description

Students will demonstrate their knowledge of the formation, use, conservation and management of water resources including legal, economic, political and societal factors as well as the evaluation of attempts to manage water resources and their ability to show how hydrology, water availability and quality, hazards, use, demand and allocation influence water resource management.

Outcome 3 Method 1

Students taking Water Resources (GEO 3434) will be evaluated during and/or at the end of the semester by course instructors on the students' knowledge of water resources using embedded test questions administered during Water Resources (GEO 3434) class examinations. Specific embedded questions will target areas that need improvement as identified by the previous year's assessment. Students' knowledge will be assessed on the basis of: Exceeding Expectations (10 embedded test questions answered correctly); Meeting Expectations (7 - 9 embedded test questions answered correctly); or Failing to Meet Expectations (6 or fewer embedded test questions answered correctly). We expect at least 70% of the students will meet or exceed expectations for this outcome / method.

Outcome 3 Method 1 Result

During the current assessment year, 84 undergraduate students were evaluated by their course instructor using embedded exam questions from the course: Water Resources (GEO 3434). The course instructor found 96% of the students met (64%) or exceeded (32%) expectations by demonstrating their knowledge of the major concepts in water resources. The target of 70% of the students meeting or exceeding expectations was achieved.

Outcome 3 Method 2

Students taking Water Resources (GEO 3434) will be evaluated during and/or at the end of the semester by course instructors on the students' ability to show how hydrology, water availability and quality, hazards, use, demand and allocation influence water resource management using a project graded with a rubric. Students' ability will be assessed by the number of points received on the grading rubric on the basis of: Exceeding Expectations (10 points); Meeting Expectations (7 - 9 points); or Failing to Meet Expectations (6 or fewer points). We expect at least 70% of the students will meet or exceed expectations for this outcome / method.

Outcome 3 Method 2 Result

During the current assessment year, 84 undergraduate students were evaluated using a rubric-graded project from the course: Water Resources (GEO 3434). The course instructor found that 67% of the students met (44%) or exceeded (23%) expectations. The target of 70% of the students meeting or exceeding expectations was not achieved.

Outcome 4

Description

The academic program will promote and realize gains in student success.

Outcome 4 Method 1

Student retention success will be measured by observing one year retention rates of students enrolled in the academic program from their freshman to sophomore year. Data will be obtained from the university's certified enrollment records at the end of the fall semester. Rates of retention success will be expected to be at or above the university average for this level of program.

Outcome 4 Method 1 Result

Student retention success measured by freshman-to-sophomore retention rate for the current assessment year (100%) for students enrolled in Geography: Water Resources met the expectation to be at or above the University average (77%) for this level of program.

Outcome 4 Method 2

Student graduation success will be measured by observing the number of graduates from the academic program during the fall, spring, and summer semesters and comparing the number of graduates to the number of students enrolled in the program. Data will be obtained from the university's certified enrollment records for the fall, spring, and summer semesters. The number of graduates is expected to be at or above the university rate of graduation for this level of program.

Outcome 4 Method 2 Result

The graduation rate success for Geography: Water Resources students of 38% (10 graduates / 26 students enrolled) in the current assessment period met expectations of exceeding the University graduation rate average of 22% (6685 graduates / 30619 students enrolled).

Outcome 5

Description

The academic program will promote and realize efficiency in the delivery and completion of the program.

Outcome 5 Method 1

Delivery efficiency will be measured by reviewing the total number students enrolled in the academic program during the fall semester. Data will be obtained from the university's certified enrollment records at the end of the fall semester. Delivery efficiency will be expected to increase from year to year.

Outcome 5 Method 1 Result

Delivery efficiency measured by the number of students (26) majoring in Geography: Water Resources in the fall of 2024 compared to the number of majors (28) in the fall 2023 did not meet the expectation of an increase in the number of students from year to year.

Outcome 5 Method 2

Completion efficiency will be measured by observing the average time-to-completion for students in the academic program. Data will be obtained from the university's certified enrollment records for the fall semester. The time-to-completion of graduates is expected to be at or below the university average for this level of program.

Outcome 5 Method 2 Result

Completion efficiency measured by the average time to completion (native students) majoring in Geography: Water Resources for the current assessment year (4.0 years) met the expectation to be at or below the University average (4.4 years) for this level of program.

Approval History

Approval history details

Date and time approved	Approver	Approval event
9/21/2024 at 2:38 PM	Dr. Injeong Jo i_j13	Outcomes Data Entry Submittal
9/26/2024 at 3:08 PM	Dr. Jennifer Jensen jj41	Outcomes Level 1 Approval
10/2/2024 at 11:12 AM	Dr. Elizabeth Erhart ee10	Outcomes Audit
11/14/2024 at 10:30 AM	Dr. Mary C Brennan mb18	Outcomes Level 2 Approval
5/15/2025 at 3:12 PM	Dr. Elizabeth Erhart ee10	Results Data Entry Submittal
5/16/2025 at 7:42 AM	Dr. Jennifer Jensen jj41	Results Level 1 Approval
5/29/2025 at 9:21 AM	Dr. Elizabeth Erhart ee10	Results Audit
5/30/2025 at 12:22 PM	Dr. Mary C Brennan mb18	Results Level 2 Approval

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Geography (BS)

- **Assessment period:** 2024-2025
- **Outcomes status:** Complete
- **Results status:** Complete

Program code: 45.07

Outcome type: Student Learning (UG)

Degree: Undergraduate

Department: Geography

Program: Geography (BS)

Mission Statement and Coordinator

Mission Statement

Geography prepares students for meaningful careers in both the public and private sectors by providing them a program of studies that focuses on the systematic study of the spatial distribution and interrelationships of people, natural resources, plant and animal life, including instruction in historical and political geography, cultural geography, economic and physical geography, regional science, cartographic methods, remote sensing, spatial analysis, and applications to areas such as land-use planning, development studies, and analyses of specific countries, regions, and resources. In addition to general and specialized lecture-format courses, the Geography program offers a variety of project-based lab and field-trip experiences, career development through advising, job-shadowing and internships as well as team-building and leadership opportunities available by joining one or more Geography and Environmental Studies department student organizations. Finally, the Geography program provides students with the foundation for a liberal education, preparing graduates to think independently, to choose free and to base personal and professional decisions on a broad understanding of the Earth's physical and cultural landscapes in order to live full, rewarding lives.

Coordinator

Brian J Cooper

Evidence of Improvement and Action Plan

Evidence of Improvement

The instructional strategies introduced in the previous cycle and implemented during the current assessment year effectively supported student learning as evidenced by outcomes comparable to those of last year. Outcome 1 - Method 2, and Outcome 2 - Method 2 had slight improvements over last year and indicate that efforts to help students locate and explain major physical and cultural features of Earth are working. Outcome 2 - Method 1 had a sizeable increase from 84% to 89% compared to last year, reflecting improved student understanding of descriptive statistics, bi-variate relationships, and inferential statistics. Outcome 3 maintained its strong performance, with both Method 1 and Method 2 reaching 100% of students meeting or exceeding expectations. These consistent improvements suggest that the efforts to enhance instruction through focused lectures and peer discussions continue to have a positive impact on student learning across the Geography (BS) program. Our graduation rate (Outcome 4 - Method 2) increased from 32% to 36% and remained well above the university average, and our time to graduation (Outcome 5 - Method 2) increased from last year and was lower than the university average.

Action Plan

The continued improvements indicated above suggest that the instructional strategies implemented over the last year have been effective and will therefore be sustained for the next assessment cycle. For the upcoming year, we will focus on strengthening Outcome 4 - Method 1, which measures freshman-to-sophomore retention. Although the program freshman-to-sophomore retention rate was lower than the university average, this result is influenced by the small number of freshmen students who declare Geography as a major upon entry to the university. To address this, we will work to increase early engagement by coordinating outreach with academic advisors and first-year students, highlighting the relevance and career potential of the Geography major. Our delivery efficiency, Outcome 5 - Method 1 (measured by comparing the number of students enrolled this year to the number enrolled last year), is down slightly from last year and we will work to ensure that students who express interest in Geography during their first year receive timely academic guidance and invitations to program-related events that foster a sense of academic community and belonging.

Outcome 1

Description

Students will demonstrate their knowledge of the major physical and cultural features of the Earth and their ability to locate examples of these major features, such as mountains, rivers, oceans, political boundaries, agricultural regions and language groups, on a map.

Outcome 1 Method 1

Students taking World Geography (GEO 1310) will be evaluated during and/or at the end of the semester by course instructors on the students' knowledge of the major physical and cultural features of the Earth using embedded test questions administered during World Geography (GEO 1310) class examinations. Students' knowledge will be assessed on the basis of: Exceeding Expectations (10 embedded test questions answered correctly); Meeting Expectations (7 - 9 embedded test questions answered correctly); or Failing to Meet Expectations (6 or fewer embedded test questions answered correctly). We expect at least 70% of the students will meet or exceed expectations for this outcome / method.

Outcome 1 Method 1 Result

During the current assessment year, 690 undergraduate students were evaluated on their knowledge of the major physical features of the Earth by their course instructors using embedded test questions from the course: World Geography (GEO 1310). The course instructors found that 86% of the students met (45%) or exceeded (41%) expectations for this outcome / method. The target of 70% of the students meeting or exceeding expectations for this outcome / method was achieved.

Outcome 1 Method 2

Students taking World Geography (GEO 1310) will be evaluated during and/or at the end of the semester by course instructors on the students' ability to locate examples of major physical and cultural features of the Earth on a map using embedded test questions administered during World Geography (GEO 1310) class examinations. Students' ability will be assessed on the basis of: Exceeding Expectations (10 embedded test questions answered correctly); Meeting Expectations (7 - 9 embedded test questions answered correctly); or Failing to Meet Expectations (6 or fewer embedded test questions answered correctly). We expect at least 70% of the students will meet or exceed expectations for this outcome / method.

Outcome 1 Method 2 Result

During the current assessment year, 690 undergraduate students were evaluated on their ability to locate examples of major physical features of the Earth on a map by their course instructors using embedded test questions from the course: World Geography (GEO 1310). The course

instructors found that 86% of the students met (45%) or exceeded (41%) expectations for this outcome / method. The target of 70% of the students meeting or exceeding expectations for this outcome / method was achieved.

Outcome 2

Description

Students will demonstrate their knowledge of research methods used by geographers and their ability to use statistical software to solve geographic problems.

Outcome 2 Method 1

Students taking Research Methods in Geography (GEO 3301) will be evaluated during and/or at the end of the semester by course instructors on the students' knowledge of research methods using embedded test questions administered during Research Methods in Geography (GEO 3301) class examinations. Students' knowledge will be assessed on the basis of: Exceeding Expectations (100% - 90% embedded test questions answered correctly); Meeting Expectations (89% - 70% embedded test questions answered correctly); or Failing to Meet Expectations (69% or fewer embedded test questions answered correctly). We expect at least 70% of the students will meet or exceed expectations for this outcome / method.

Outcome 2 Method 1 Result

During the current assessment year, 102 undergraduate students were evaluated on their knowledge of research methods by their course instructor using embedded test questions from the course: Research Methods for Geography (GEO 3301). The course instructor found that 89% of the students met (42%) or exceeded (47%) expectations on embedded knowledge questions about descriptive statistics, bi-variate relationships, and inferential statistics for this outcome / method. The target of 70% of the students meeting or exceeding expectations for this outcome / method was achieved.

Outcome 2 Method 2

Students taking Research Methods in Geography (GEO 3301) will be evaluated during and/or at the end of the semester by course instructors on the students' ability to use statistical software to solve geographic problems using a project graded with rubric. Students' ability will be assessed by the percentage of points received on the grading rubric on the basis of: Exceeding Expectations (100% - 90%); Meeting Expectations (89% - 70%); or Failing to Meet Expectations (69% or less). We expect at least 70% of the students will meet or exceed expectations for this outcome / method.

Outcome 2 Method 2 Result

During the current assessment year, 102 undergraduate students were evaluated on their ability to use statistical software to solve geographic problems using a project graded with rubric from the course: Research Methods for Geography (GEO 3301). The course instructor found that 93% of the students met (26%) or exceeded (67%) expectations for this outcome / method. The target of 70% of the students meeting or exceeding expectations for this outcome / method was achieved.

Outcome 3

Description

Students will demonstrate their knowledge of physical geography and their ability to use scientific methods and techniques for observing, measuring, recording and reporting on geographic phenomena.

Outcome 3 Method 1

Students taking Field Methods (GEO 4430) will be evaluated during and/or at the end of the semester by course instructors on the students' knowledge of physical geography using embedded test questions administered during Field Methods (GEO 4430) class examinations. Specific embedded questions will target areas that need improvement as identified by the previous year's assessment. Students' knowledge will be assessed on the basis of: Exceeding Expectations (10 embedded test questions answered correctly); Meeting Expectations (7 - 9 embedded test questions answered correctly); or Failing to Meet Expectations (6 or fewer embedded test questions answered correctly). We expect at least 70% of the students will meet or exceed expectations for this outcome / method.

Outcome 3 Method 1 Result

During the current assessment year, 9 undergraduate students were evaluated on their knowledge of physical geography by their course instructor using embedded test questions from the course: Field Methods (GEO 4430). The course instructor found that 100% of the students met (100%) or exceeded (0%) expectations for this outcome / method. The target of 70% of the students meeting or exceeding expectations for this outcome / method was achieved.

Outcome 3 Method 2

Students taking Field Methods (GEO 4430) will be evaluated during and/or at the end of the semester by course instructors on the students' ability to use scientific methods and techniques for observing, measuring, recording and reporting on geographic phenomena using a project graded with a rubric. Students' ability will be assessed by the number of points received on the

grading rubric on the basis of: Exceeding Expectations (10 points); Meeting Expectations (7 - 9 points); or Failing to Meet Expectations (6 or fewer points). We expect at least 70% of the students will meet or exceed expectations for this outcome / method.

Outcome 3 Method 2 Result

During the current assessment year, 9 undergraduate students were evaluated on their ability to use scientific methods and techniques for observing, measuring, recording and reporting on geographic phenomena by their course instructor using a rubric-graded project from the course: Field Methods (GEO 4430). The course instructor found that 100% of the

undergraduate students met (67%) or exceeded (33%) expectations for this outcome. The target of 70% of the students meeting or exceeding expectations for this outcome was achieved.

Outcome 4

Description

The academic program will promote and realize gains in student success.

Outcome 4 Method 1

Student retention success will be measured by observing one year retention rates of students enrolled in the academic program from their freshman to sophomore year. Data will be obtained from the university's certified enrollment records at the end of the fall semester. Rates of retention success will be expected to be at or above the university average for this level of program.

Outcome 4 Method 1 Result

Student retention success measured by freshman-to-sophomore one-year retention rate (67%) for students enrolled in Geography (fall 2023 cohort semester) did not meet the expectation to be at or above the University average (80%) for this level of program.

Outcome 4 Method 2

Student graduation success will be measured by observing the number of graduates from the academic program during the fall, spring, and summer semesters and comparing the number of graduates to the number of students enrolled in the program. Data will be obtained from the university's certified enrollment records for the fall, spring, and summer semesters. The number of graduates is expected to be at or above the university rate of graduation for this level of program.

Outcome 4 Method 2 Result

The current year graduation success rate for Geography students was 36% (39 graduates / 108 students enrolled) and met expectations of exceeding the University graduation rate average of 19% (6856 graduates / 36206 students enrolled).

Outcome 5

Description

The academic program will promote and realize efficiency in the delivery and completion of the program.

Outcome 5 Method 1

Delivery efficiency will be measured by reviewing the total number students enrolled in the academic program during the fall semester. Data will be obtained from the university's certified enrollment records at the end of the fall semester. Delivery efficiency will be expected to increase from year to year.

Outcome 5 Method 1 Result

Delivery efficiency measured by the number of students (108) majoring in Geography in the fall of 2024 compared to the number of majors (116) in the fall of 2023 did not meet the expectation of an increase in the number of students from year to year.

Outcome 5 Method 2

Completion efficiency will be measured by observing the average time-to-completion for students in the academic program. Data will be obtained from the university's certified enrollment records for the fall semester. The time-to-completion of graduates is expected to be at or below the university average for this level of program.

Outcome 5 Method 2 Result

Completion efficiency measured by the average time to completion (native students) majoring in Geography for the current assessment year (4.2 years) met the expectation to be at or below the University average (4.4 years) for this level of program.

Approval History

Approval history details

Date and time approved	Approver	Approval event
9/21/2024 at 2:40 PM	Dr. Injeong Jo i_j13	Outcomes Data Entry Submittal
9/26/2024 at 3:09 PM	Dr. Jennifer Jensen jj41	Outcomes Level 1 Approval
10/2/2024 at 11:29 AM	Dr. Elizabeth Erhart ee10	Outcomes Audit
11/14/2024 at 10:29 AM	Dr. Mary C Brennan mb18	Outcomes Level 2 Approval
5/15/2025 at 1:39 PM	Dr. Elizabeth Erhart ee10	Results Data Entry Submittal
5/16/2025 at 7:39 AM	Dr. Jennifer Jensen jj41	Results Level 1 Approval
5/29/2025 at 9:15 AM	Dr. Elizabeth Erhart ee10	Results Audit
5/30/2025 at 12:04 PM	Dr. Mary C Brennan mb18	Results Level 2 Approval

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GEOL 1410 (Physical Geology)

- **Assessment period:** 2024-2025
- **Outcomes status:** Complete
- **Results status:** Complete

Program code: 3

Outcome type: General Education

Degree: Other

Department: Geography

Program: GEOL 1410 (Physical Geology)

Mission Statement and Coordinator

Mission Statement

The mission of the general education core curriculum at Texas State University is to provide students with a broad academic foundation in the component areas of communication; mathematics; life and physical sciences; language, philosophy and culture; creative arts; American history; government/political science; and social and behavioral sciences.

Life and Physical Sciences Mission:

The mission of the life and physical sciences component is to focus on describing, explaining, and predicting natural phenomena using the scientific method.

Coordinator

Injeong Jo / Shelly Wernette

Evidence of Improvement and Action Plan

Evidence of Improvement

Evidence of Improvement - For the current assessment year, all outcomes met their target values and indicated considerable consistency with last year's outcomes, indicating the success of previous adjustments to teaching methods. Last year's action plan was to specifically improve student's ability to describe interactions among natural phenomena and the implications of scientific principles on the physical world (Outcome 1), but this year's result is identical to last year's result (89%). All other outcomes are 90% or greater.

Action Plan

The success measurements indicated above support the continuation of the instructional strategies implemented in the previous year. For the next assessment year, we will focus particularly on improving Outcome 1 by incorporating more interactive discussions and real-world case studies into lectures to deepen students' understanding of interactions among natural phenomena and the relevance of scientific principles to both the physical world and human experiences.

Outcome 1

Component: Life and Physical Sciences

Description

Students will describe interactions among natural phenomena and the implications of scientific principles on the physical world and on human experiences.

Outcome 1 Method 1

Students taking Physical Geology (GEOL 1410) will be evaluated during and/or at the end of the semester by course instructors on their knowledge of the natural phenomena of Earth's physical geology using embedded test questions administered during Physical Geology (GEOL 1410) class examinations. Students' knowledge will be assessed on the basis of exceeding, meeting or failing to meet expectations, which will be determined by the students' total score on the embedded test questions. (90% - 100% = exceeded expectations, 70% - 89% = met expectations, 69% or below = failed to meet expectations). We expect at least 70% of the students will meet or exceed expectations for this outcome.

Outcome 1 Method 1 Result

During the current assessment year, 395 undergraduate students were evaluated by their course instructors on their knowledge of the natural phenomena of Earth's physical geology using embedded exam questions. The course instructors found that 89% of the students met (50%) or exceeded (39%) expectations. The target of 70% of the students meeting or exceeding expectations was achieved.

Outcome 2

Competency: Critical Thinking

Description

Students will demonstrate creative thinking, innovation, inquiry, analysis, evaluation and synthesis of information.

Outcome 2 Method 1

Students taking Physical Geology (GEOL 1410) will be evaluated during and/or at the end of the semester by course instructors on their ability to apply the scientific method to the study of the natural phenomena of physical geology using embedded test questions administered during Physical Geology (GEOL 1410) class examinations. Students' knowledge will be assessed on the basis of exceeding, meeting or failing to meet expectations, which will be determined by the students' total score on the embedded test questions. (90% - 100% = exceeded expectations, 70% - 89% = met expectations, 69% or below = failed to meet expectations). We expect at least 70% of the students will meet or exceed expectations for this outcome.

Outcome 2 Method 1 Result

During the current assessment year, 395 undergraduate students were evaluated by their course instructors on their ability to apply the scientific method to the study of the natural phenomena of physical geology using embedded exam questions. The course instructors found that 91% of the students met (59%) or exceeded (32%) expectations. The target of 70% of the students meeting or exceeding expectations was achieved.

Outcome 3

Competency: Communication

Description

Students will effectively develop, interpret and express ideas through written, oral and visual communication.

Outcome 3 Method 1

Students taking Physical Geology (GEOL 1410) will be evaluated during and/or at the end of the semester by course instructors on their ability to use writing, speech and visualizations to express ideas about the natural phenomena of physical geology using a lab project / presentation with grading rubric from the course: Physical Geology (GEOL 1410). Students' ability will be assessed on the basis of exceeding, meeting or failing to meet expectations, which will be determined by the students' total score on the lab project / presentation. (90% - 100% = exceeded expectations, 70% - 89% = met expectations, 69% or below = failed to meet expectations). We expect at least 70% of the students will meet or exceed expectations for this outcome.

Outcome 3 Method 1 Result

During the current assessment year, 176 undergraduate students were evaluated by their course instructors on their ability to use writing, speech and visualizations to express ideas about the natural phenomena of physical geology using a lab project / presentation. The

course instructors found that 91% of the students met (27%) or exceeded (64%) expectations. The target of 70% of the students meeting or exceeding expectations was achieved.

Outcome 4

Competency: Empirical and Quantitative Skills

Description

Students will manipulate and analyze numerical data or observable facts resulting in informed conclusions.

Outcome 4 Method 1

Students taking Physical Geology (GEOL 1410) will be evaluated during and/or at the end of the semester by course instructors on their ability to manipulate and analyze numerical physical geology data and observable physical geology facts using a lab project with grading rubric from the course: Physical Geology (GEOL 1410). Students' ability will be assessed on the basis of exceeding, meeting or failing to meet expectations, which will be determined by the students'

total score on the lab project. (90% - 100% = exceeded expectations, 70% - 89% = met expectations, 69% or below = failed to meet expectations). We expect at least 70% of the students will meet or exceed expectations for this outcome.

Outcome 4 Method 1 Result

During the current assessment year, 356 undergraduate students were evaluated by their course instructors on their ability to manipulate and analyze numerical physical geology data and observable physical geology facts using a lab project. The course instructors found that 90% of the students met (48%) or exceeded (42%) expectations. The target of 70% of the students meeting or exceeding expectations was not achieved.

Outcome 5

Competency: Teamwork

Description

Students will recognize different points of view and work effectively with others to support a shared purpose or goal.

Outcome 5 Method 1

Students taking Physical Geology (GEOL 1410) will be evaluated during and/or at the end of the semester by course instructors on their ability to work effectively with others to support a shared purpose and goal using a group lab project with grading rubric from the course: Physical Geology (GEOL 1410). Students' ability will be assessed on the basis of failure to meet, meet, or exceed expectations, which will be determined by the students' total score on a group lab project. (100% = exceeded expectations, 70% - 90% = met expectations, 60% = failed to meet expectations). We expect at least 70% of the students will meet or exceed expectations for this outcome.

Outcome 5 Method 1 Result

Students taking Physical Geology (GEOL 1410) will be evaluated during and/or at the end of the semester by course instructors on their ability to work effectively with others to support a shared purpose and goal using a group lab project with grading rubric from the course: Physical Geology (GEOL 1410). Students' ability will be assessed on the basis of failure to meet, meet, or exceed expectations, which will be determined by the students' total score on a group lab project. (100% = exceeded expectations, 70% - 90% = met expectations, 60% = failed to meet expectations). We expect at least 70% of the students will meet or exceed expectations for this outcome.

Approval History

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9/16/2024 at 7:16 AM	Dr. Injeong Jo i_j13	Outcomes Data Entry Submittal
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11/9/2024 at 11:42 AM	Dr. Amy Weimer a_w377	Outcomes Audit
12/13/2024 at 1:32 PM	Dr. Jeff M Housman jh212	Outcomes Level 2 Approval
5/15/2025 at 1:36 PM	Dr. Elizabeth Erhart ee10	Results Data Entry Submittal
5/15/2025 at 1:38 PM	Dr. Jennifer Jensen jj41	Results Level 1 Approval
6/17/2025 at 1:30 PM	Dr. Danette L Myers dm19	Results Audit
7/28/2025 at 10:19 AM	Dr. Jeff M Housman jh212	Results Level 2 Approval

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