Geography BS

GOAL 2: Train students to have a strong foundation in Human Geography

Goal Description:

Students will be able to fully comprehend and apply concepts from their human/cultural geography courses

Providing Department: Geography BS

RELATED ITEMS/ELEMENTS

RELATED ITEM LEVEL 1

Proficiency with Advanced Human Geography Concepts (Goal 2b)

Learning Objective Description:

Students will demonstrate proficiency with advanced concepts pertaining to human geography

RELATED ITEM LEVEL 2

Advanced Human Geography Concepts

Indicator Description:

Questions pertaining to advanced concepts of human geography will be embedded in advanced geography courses (GEOG 3310, 3350, 3352, 3359, 4351, 4356, and 4357)

Criterion Description:

The average score will be 70% on questions pertaining to advanced human geography

Findings Description:

Students enrolled in GEOG 1300 averaged 63% on a series of specific questions embedded in exams that pertained to advanced concepts in human geography. Students enrolled in GEOG 3350 (cultural geography) averaged 75% on a separate series of such questions. Students enrolled in GEOG 4360 (cultural field studies) scored 74% on questions pertaining to this subject area. The scores for both GEOG 1300 and 3350 increased slightly from the previous year's assessment, and were basically equivalent to scores on the exams (including other type questions). Students from 4360 scored exactly the same as was the case with the previous assessment. Students enrolled in GEOG 4356 scored 68%. This was the first time students from this particular course were assessed, therefore there is no base-line for comparison.

No data was available from other introductory and/or advanced courses given that the timeline for completion of this assessment was moved up. There was not enough time to derive results.

RELATED ITEM LEVEL 3

Acting on Assessment (BS)

Action Description:

The progress we made towards the foci emphasized after the last assessment are as follows:

Our continued efforts to enhance student ability to effectively work with maps, graphs, & statistical procedures demonstrated positive, if not significant, progress. The same was true for the teaching of introductory concepts pertaining to introductory and advanced geographical concepts. With some exceptions, student performance on embedded exam questions did improve. This was generally true for most areas of the assessment, and for most geography courses assessed.

Two clear challenges remain; the large number of students enrolled in online sections (specifically GEOG 1401 lecture/lab), and the general decline in aptitude of our students when it comes to mathematics and statistics. We feel that the success realized when it comes to student performance are due in part to our concerted efforts to utilize active-learning strategies (at least in some courses), implementing break-out sections, and emphasizing the teaching of critical

skills in the hands-on environment associated with face-to-face labs that enroll smaller groups of students, etc. We will continue with these efforts, and will attempt to apply these strategies more broadly across the curriculum. Students enrolled in online lab sections cannot receive the full benefit of these efforts, for obvious reasons. This is not to say that students in online sections are not learning – in fact, there are no significant differences in overall grades when comparing online versus face-to-face sections across our curricula. That said, students in online courses/labs are clearly not learning the critical skills that we are assessing as well as they should be. The inclusion of short on-line videos are helpful, but only when students choose to watch them. We will continue efforts to encourage online student to attend face-to-face office hours, or schedule zoom meetings with the TAs/Instructors-of-record when needed.

Regarding the second challenge mentioned above (declining aptitude in math/statistics); this is an ongoing trend that has been recognized across the university, as well as across the nation. We had originally planned on a new faculty (starting in Fall 2022) developing a new statistical course geared directly towards geosciences. However, his teaching responsibilities had to shift this past academic year when a colleague left the university. A replacement was hired who will start in Fall 2023, and plans are underway for him to develop such a course in the future.

In previous assessments, data suggested that student success increased when students completed a series of courses in an effective sequence, as opposed to those who complete the same courses in less organized ways. Both the BA and BS degrees were streamlined so that there is one basic degree pathway (in the past, students chose among three concentrations). There are now two geography concentrations, but both share the basic introductory set of course requirements. The increased student performance demonstrated by this assessment partially results from the fact that at least one cohort of student-majors are now taking courses in a more logical sequence. We believe that student performance will increase even more as more students follow the updated sequencing.

The results from this assessment, and previous assessments, will also be used to inform decision-making when it comes to course offerings developed by the new faculty member scheduled to join the department in Fall 2023. Once results from other course offerings can be assessment, additional actions will be considered.

RELATED ITEM LEVEL 1

Proficiency with Introductory Human Geography Concepts (Goal 2a)
Learning Objective Description:
Students will demonstrate proficiency with basic introductory concepts pertaining to human geography, concepts that serve as the foundation/pre-requisite for upper-level coursework in the sub-field

Goal 1. Train students to have a strong foundation in core Geography concepts

Goal Description:
Geography students will learn basic skills and competencies relevant to a well-rounded geographic education

Providing Department: Geography BS

RELATED ITEMS/ELEMENTS

RELATED ITEM LEVEL 1

Assessment Committee Coordination
Performance Objective Description:
The Geography coordinator will convene meetings with an Assessment Committee comprised of representatives of the various subfields (Human Geography, Environmental/Physical Geography, and Geo-techniques) to discuss curricula outcomes and potential need for changes

RELATED ITEM LEVEL 2

Embedded questions in exams across curricula to assess the world in spatial terms
KPI Description:
Questions pertaining to concepts demonstrating comprehension of the world in spatial terms will be embedded in geography courses (GEOG 1300, 2355, 2356, and 3350)

Target Description:
Students should score a minimum of 70% on all questions pertaining to comprehending the world in spatial terms

Results Description:

Students enrolled in GEOG 1300 averaged 63% on a series of specific questions embedded in exams that pertained to the world in spatial terms. Students enrolled in GEOG 3350 (Cultural Geography) averaged 74% on a separate series of questions focused on this subject matter. The scores for both courses (GEOG 1300 & 3350) increased slightly from the previous year's assessment. Students enrolled in GEOG 4356 were assessed for the first time, and scored 68% on these types of questions.

No data was available from other introductory and/or advanced courses.

RELATED ITEM LEVEL 3

Acting on Assessment

Action Description:

The progress we made towards the foci emphasized after the last assessment are as follows:

Our continued efforts to enhance student ability to effectively work with maps, graphs, & statistical procedures demonstrated positive, if not significant, progress. The same was true for the teaching of introductory concepts pertaining to introductory and advanced geographical concepts. With some exceptions, student performance on embedded exam questions did improve. This was generally true for most areas of the assessment, and for most geography courses assessed.

Two clear challenges remain; the large number of students enrolled in online sections (specifically GEOG 1401 lecture/lab), and the general decline in aptitude of our students when it comes to mathematics and statistics. We feel that the success realized when it comes to student performance are due in part to our concerted efforts to utilize active-learning strategies (at least in some courses), implementing break-out sections, and emphasizing the teaching of critical skills in the hands-on environment associated with face-to-face labs that enroll smaller groups of students, etc. We will continue with these efforts, and will attempt to apply these strategies more broadly across the curriculum. Students enrolled in online lab sections cannot receive the full benefit of these efforts, for obvious reasons. This is not to say that students in online sections are not learning – in fact, there are no significant differences in overall grades when comparing online versus face-to-face sections across our curricula. That said, students in online courses/labs are clearly not learning the critical skills that we are assessing as well as they should be. The inclusion of short on-line videos are helpful, but only when students choose to watch them. We will continue efforts to encourage online student to attend face-to-face office hours, or schedule zoom meetings with the TAs/Instructors-of-record when needed.

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In previous assessments, data suggested that student success increased when students completed a series of courses in an effective sequence, as opposed to those who complete the same courses in less organized ways. Both the BA and BS degrees were streamlined so that there is one basic degree pathway (in the past, students chose among three concentrations). There are now two geography concentrations, but both share the basic introductory set of course requirements. The increased student performance demonstrated by this assessment partially results from the fact that at least one cohort of student-majors are now taking courses in a more logical sequence. We believe that student performance will increase even more as more students follow the updated sequencing.

The results from this assessment, and previous assessments, will also be used to inform decision-making when it comes to course offerings developed by the new faculty member scheduled to join the department in Fall 2023. Once results from other course offerings can be assessment, additional actions will be considered.

RELATED ITEM LEVEL 2

Questions regarding Foundational Concepts embedded in exams throughout curriculum

KPI Description:

Students are expected to demonstrate proficiency in First-Year Foundational Geographic Concepts on questions embedded in exams in a series of major courses.

Target Description:

Students should score at least a minimum of 70% on questions pertaining to First-Year Foundational Geographic Concepts.

Results Description:

Questions pertaining to the use of basic statistics were embedded in exams for geography courses (GEOG 1300, 1401, 2355, 2356, 3301, 4331 4351, 4356, and 4357).

Students enrolled in GEOG 1300 averaged 61% on a series of specific questions embedded in exams that pertained to basic statistical procedures. Students enrolled in GEOG 1401 (weather & climate) averaged 54% on a similar, yet very somewhat different, series of questions. The scores for GEOG 1300 increased slightly from the previous year, while those for GEOG 1401 decreased slightly. Students enrolled in GEOG 3301 scored 69% on different sets of questions pertaining to introductory statistics, which also represented a slight decrease. Students enrolled in GEOG 4356 scored 64% on such questions. This was the first time results from this particular course have been assessed in this way, so there is no baseline comparison.

Questions pertaining to the basic use of maps, charts, and graphs were embedded in introductory geography courses (GEOG 1300, 1401, 2355, 2356, and 4356)

Students enrolled in GEOG 1401 (Weather & Climate) averaged 55% on a series of specific questions embedded in exams that pertained to maps, charts and graphs. Students enrolled in GEOG 1300 (People, Place & Environment) averaged 61% on a separate, yet very similar, series of questions. The scores for both introductory courses increased slightly from the previous year's assessment, yet were still lower than overall scores on the exams (including other type questions). Students enrolled in GEOG 4356 scored 66% on similar questions, although this was this the first time results from this course have been assessed.

No data was available from other courses.

RELATED ITEM LEVEL 3

Acting on Assessment

Action Description:

The progress we made towards the foci emphasized after the last assessment are as follows:

Our continued efforts to enhance student ability to effectively work with maps, graphs, & statistical procedures demonstrated positive, if not significant, progress. The same was true for the teaching of introductory concepts pertaining to introductory and advanced geographical concepts. With some exceptions, student performance on embedded exam questions did improve. This was generally true for most areas of the assessment, and for most geography courses assessed.

Two clear challenges remain; the large number of students enrolled in online sections (specifically GEOG 1401 lecture/lab), and the general decline in aptitude of our students when it comes to mathematics and statistics. We feel that the success realized when it comes to student performance are due in part to our concerted efforts to utilize active-learning strategies (at least in some courses), implementing break-out sections, and emphasizing the teaching of critical skills in the hands-on environment associated with face-to-face labs that enroll smaller groups of students, etc. We will continue with these efforts, and will attempt to apply these strategies more broadly across the curriculum. Students enrolled in online lab sections cannot receive the full benefit of these efforts, for obvious reasons. This is not to say that students in online sections are not learning – in fact, there are no significant differences in overall grades when comparing online versus face-to-face sections across our curricula. That said, students in online courses/labs are clearly not learning the critical skills that we are assessing as well as they should be. The inclusion of short on-line videos are helpful, but only when students choose to watch them. We will continue efforts to encourage online student to attend face-to-face office hours, or schedule zoom meetings with the TAs/Instructors-of-record when needed.

Regarding the second challenge mentioned above (declining aptitude in math/statistics); this is an ongoing trend that has been recognized across the university, as well as across the nation. We had originally planned on a new faculty (starting in Fall 2022) developing a new statistical course geared directly towards geosciences. However, his teaching responsibilities had to shift this past academic year when a colleague left the university. A replacement was hired who will start in Fall 2023, and plans are underway for him to develop such a course in the future.

In previous assessments, data suggested that student success increased when students completed a series of courses in an effective sequence, as opposed to those who complete the same courses in less organized ways. Both the BA and BS degrees were streamlined so that there is one basic degree pathway (in the past, students chose among three concentrations). There are now two geography concentrations, but both share the basic introductory set of course requirements. The increased student performance demonstrated by this assessment partially results from the fact that at least one cohort of student-majors are now taking courses in a more logical sequence. We believe that student performance will increase even more as more students follow the updated sequencing.

The results from this assessment, and previous assessments, will also be used to inform decision-making when it comes to course offerings developed by the new faculty member scheduled to join the department in Fall 2023. Once results from other course offerings can be assessment, additional actions will be considered.

RELATED ITEM LEVEL 1

Proficiency with First-Year Foundational Concepts

Performance Objective Description:

Students will demonstrate proficiency in First-Year Foundational Geographic Concepts

RELATED ITEM LEVEL 2

Questions regarding Foundational Concepts embedded in exams throughout curriculum

KPI Description:

Students are expected to demonstrate proficiency in First-Year Foundational Geographic Concepts on questions embedded in exams in a series of major courses.

Target Description:

Students should score at least a minimum of 70% on questions pertaining to First-Year Foundational Geographic Concepts.

Results Description:

Questions pertaining to the use of basic statistics were embedded in exams for geography courses (GEOG 1300, 1401, 2355, 2356, 3301, 4331 4351, 4356, and 4357).

Students enrolled in GEOG 1300 averaged 61% on a series of specific questions embedded in exams that pertained to basic statistical procedures. Students enrolled in GEOG 1401 (weather & climate) averaged 54% on a similar, yet very somewhat different, series of questions. The scores for GEOG 1300 increased slightly from the previous year, while those for GEOG 1401 decreased slightly. Students enrolled in GEOG 3301 scored 69% on different sets of questions pertaining to introductory statistics, which also represented a slight decrease. Students enrolled in GEOG 4356 scored 64% on such questions. This was the first time results from this particular course have been assessed in this way, so there is no baseline comparison.

Questions pertaining to the basic use of maps, charts, and graphs were embedded in introductory geography courses (GEOG 1300, 1401, 2355, 2356, and 4356)

Students enrolled in GEOG 1401 (Weather & Climate) averaged 55% on a series of specific questions embedded in exams that pertained to maps, charts and graphs. Students enrolled in GEOG 1300 (People, Place & Environment) averaged 61% on a separate, yet very similar, series of questions. The scores for both introductory courses increased slightly from the previous year's assessment, yet were still lower than overall scores on the exams (including other type questions). Students enrolled in GEOG 4356 scored 66% on similar questions, although this was this the first time results from this course have been assessed.

No data was available from other courses.

RELATED ITEM LEVEL 3

Acting on Assessment

Action Description:

The progress we made towards the foci emphasized after the last assessment are as follows:

Our continued efforts to enhance student ability to effectively work with maps, graphs, & statistical procedures demonstrated positive, if not significant, progress. The same was true for the teaching of introductory concepts pertaining to introductory and advanced geographical concepts. With some exceptions, student performance on embedded exam questions did improve. This was generally true for most areas of the assessment, and for most geography courses assessed.

Two clear challenges remain; the large number of students enrolled in online sections (specifically GEOG 1401 lecture/lab), and the general decline in aptitude of our students when it comes to mathematics and statistics. We feel that the success realized when it comes to student performance are due in part to our concerted efforts to utilize active-learning strategies (at least in some courses), implementing break-out sections, and emphasizing the teaching of critical skills in the hands-on environment associated with face-to-face labs that enroll smaller groups of students, etc. We will continue with these efforts, and will attempt to apply these strategies more broadly across the curriculum. Students enrolled in online lab sections cannot receive the full benefit of these efforts, for obvious reasons. This is not to say that students in online sections are not learning – in fact, there are no significant differences in overall grades when comparing online versus face-to-face sections across our curricula. That said, students in online courses/labs are clearly not learning the critical skills that we are assessing as well as they should be. The inclusion of short on-line videos are helpful, but only when students choose to watch them. We will continue efforts to encourage online student to attend face-to-face office hours, or schedule zoom meetings with the TAs/Instructors-of-record when needed.

Regarding the second challenge mentioned above (declining aptitude in math/statistics); this is an ongoing trend that has been recognized across the university, as well as across the nation. We had originally planned on a new faculty (starting in Fall 2022) developing a new statistical course geared directly towards geosciences. However, his teaching responsibilities had to shift this past academic year when a colleague left the university. A replacement was hired who will start in Fall 2023, and plans are underway for him to develop such a course in the future.

In previous assessments, data suggested that student success increased when students completed a series of courses in an effective sequence, as opposed to those who complete the same courses in less organized ways. Both the BA and BS degrees were streamlined so that there is one basic degree pathway (in the past, students chose among three concentrations). There are now two geography concentrations, but both share the basic introductory set of course requirements. The increased student performance demonstrated by this assessment partially results from the fact that at least one cohort of student-majors are now taking courses in a more logical sequence. We believe that student performance will increase even more as more students follow the updated sequencing.

The results from this assessment, and previous assessments, will also be used to inform decision-making when it comes to course offerings developed by the new faculty member scheduled to join the department in Fall 2023. Once results from other course offerings can be assessment, additional actions will be considered.

RELATED ITEM LEVEL 1

Proficiency with Global and Geographical Awareness

Performance Objective Description:

Students will demonstrate a proficient level of global and geographic awareness

RELATED ITEM LEVEL 2

Embedded questions in exams across curricula to assess the world in spatial terms

KPI Description:

Questions pertaining to concepts demonstrating comprehension of the world in spatial terms will be embedded in geography courses (GEOG 1300, 2355, 2356, and 3350)

Target Description:

Students should score a minimum of 70% on all questions pertaining to comprehending the world in spatial terms

Results Description:

Students enrolled in GEOG 1300 averaged 63% on a series of specific questions embedded in exams that pertained to the world in spatial terms. Students enrolled in GEOG 3350 (Cultural Geography) averaged 74% on a separate series of questions focused on this subject matter. The scores for both courses (GEOG 1300 & 3350) increased slightly from the previous year's assessment. Students enrolled in GEOG 4356 were assessed for the first time, and scored 68% on these types of questions.

No data was available from other introductory and/or advanced courses.

RELATED ITEM LEVEL 3

Acting on Assessment

Action Description:

The progress we made towards the foci emphasized after the last assessment are as follows:

Our continued efforts to enhance student ability to effectively work with maps, graphs, & statistical procedures demonstrated positive, if not significant, progress. The same was true for the teaching of introductory concepts pertaining to introductory and advanced geographical concepts. With some exceptions, student performance on embedded exam questions did improve. This was generally true for most areas of the assessment, and for most geography courses assessed.

Two clear challenges remain; the large number of students enrolled in online sections (specifically GEOG 1401 lecture/lab), and the general decline in aptitude of our students when it comes to mathematics and statistics. We feel that the success realized when it comes to student performance are due in part to our concerted efforts to utilize active-learning strategies (at least in some courses), implementing break-out sections, and emphasizing the teaching of critical skills in the hands-on environment associated with face-to-face labs that enroll smaller groups of students, etc. We will continue with these efforts, and will attempt to apply these strategies more broadly across the curriculum. Students enrolled in online lab sections cannot receive the full benefit of these efforts, for obvious reasons. This is not to say that students in online sections are not learning – in fact, there are no significant differences in overall grades when comparing online versus face-to-face sections across our curricula. That said, students in online courses/labs are clearly not learning the critical skills that we are assessing as well as they should be. The inclusion of short on-line videos are helpful, but only when students choose to watch them. We will continue efforts to encourage online student to attend face-to-face office hours, or schedule zoom meetings with the TAs/Instructors-of-record when needed.

Regarding the second challenge mentioned above (declining aptitude in math/statistics); this is an ongoing trend that has been recognized across the university, as well as across the nation. We had originally planned on a new faculty (starting in Fall 2022) developing a new statistical course geared directly towards geosciences. However, his teaching responsibilities had to shift this past academic year when a colleague left the university. A replacement was hired who will start in Fall 2023, and plans are underway for him to develop such a course in the future.

In previous assessments, data suggested that student success increased when students completed a series of courses in an effective sequence, as opposed to those who complete the same courses in less organized ways. Both the BA and BS degrees were streamlined so that there is one basic degree pathway (in the past, students chose among three concentrations). There are now two geography concentrations, but both share the basic introductory set of course requirements. The increased student performance demonstrated by this assessment partially results from the fact that at least one cohort of student-majors are now taking courses in a more logical sequence. We believe that student performance will increase even more as more students follow the updated sequencing.

The results from this assessment, and previous assessments, will also be used to inform decision-making when it comes to course offerings developed by the new faculty member scheduled to join the department in Fall 2023. Once results from other course offerings can be assessment, additional actions will be considered.

Goal 3. Train Students to Have a Strong Foundation in Environmental/Physical Geography

Goal Description:

Students will be able to fully comprehend and apply concepts from their environmental/geography courses

Providing Department: Geography BS

RELATED ITEMS/ELEMENTS

RELATED ITEM LEVEL 1

Proficiency with Advanced Environmental/Physical Geography Concepts (Goal 3b)
Learning Objective Description:
Students will demonstrate proficiency with advanced concepts pertaining to environmental and physical geography

RELATED ITEM LEVEL 1

Proficiency with Introductory Concepts in Environmental/Physical Geography (Goal 3a)
Learning Objective Description:
Students will demonstrate proficiency with basic introductory concepts pertaining to physical and environmental geography, concepts that serve as the foundation/pre-requisites for upper-level coursework in this sub-field

Goal 4: Train Students to have a strong foundation in systems thinking

Goal Description:
Students will be able to link physical systems and human/cultural systems, as well as possess sufficient knowledge of human-environment interaction

Providing Department: Geography BS

RELATED ITEMS/ELEMENTS

RELATED ITEM LEVEL 1

Proficiency with Advanced Concepts in Human-Environment Relationships (Goal 4b)
Learning Objective Description:
Students will demonstrate proficiency with advanced concepts pertaining to human-environment relationships

RELATED ITEM LEVEL 2

Advanced Concepts of Human-Environment Interaction
Indicator Description:
Questions pertaining to advanced concepts of human-environment interaction will be embedded in exams for relevant upper-level geography courses

Criterion Description:
The average score will be 70% on questions pertaining to advanced concepts of advanced human-environment interaction

Findings Description:
Students enrolled in GEOG 1300 scored 55% on embedded questions pertaining to more advanced concepts in human-environment interaction and the nature of environmental systems. This was a slight increase from the previous assessment, and a lower score than was realized across the overall exams. The scores for GEOG 1401 were at 54%, which is also slightly higher than that realized last year, although it was still lower than the case for the overall exam grades. The scores on such questions incorporated in GEOG 3301 were slightly lower than the previous year. Students enrolled scored 69% on such questions. Strangely, student enrolled in this class (GEOG 3301) still scored higher on advanced concepts in the subject area than they did on introductory concepts. As was the case with introductory concepts, students enrolled in GEOG 3350 scored 68% on advanced concepts in this subject area. This was slightly lower than the previous year and a bit lower than that realized with overall exam grades.

Not data could be derived from the variety of other advanced courses in geography courses (GEOG 4331, 4432, 3310, 4356, 4357), primarily because the results were due before results could get derived.

RELATED ITEM LEVEL 3

Acting on Assessment (BS)

Action Description:

The progress we made towards the foci emphasized after the last assessment are as follows:

Our continued efforts to enhance student ability to effectively work with maps, graphs, & statistical procedures demonstrated positive, if not significant, progress. The same was true for the teaching of introductory concepts pertaining to introductory and advanced geographical concepts. With some exceptions, student performance on embedded exam questions did improve. This was generally true for most areas of the assessment, and for most geography courses assessed.

Two clear challenges remain; the large number of students enrolled in online sections (specifically GEOG 1401 lecture/lab), and the general decline in aptitude of our students when it comes to mathematics and statistics. We feel that the success realized when it comes to student performance are due in part to our concerted efforts to utilize active-learning strategies (at least in some courses), implementing break-out sections, and emphasizing the teaching of critical skills in the hands-on environment associated with face-to-face labs that enroll smaller groups of students, etc. We will continue with these efforts, and will attempt to apply these strategies more broadly across the curriculum. Students enrolled in online lab sections cannot receive the full benefit of these efforts, for obvious reasons. This is not to say that students in online sections are not learning – in fact, there are no significant differences in overall grades when comparing online versus face-to-face sections across our curricula. That said, students in online courses/labs are clearly not learning the critical skills that we are assessing as well as they should be. The inclusion of short on-line videos are helpful, but only when students choose to watch them. We will continue efforts to encourage online student to attend face-to-face office hours, or schedule zoom meetings with the TAs/Instructors-of-record when needed.

Regarding the second challenge mentioned above (declining aptitude in math/statistics); this is an ongoing trend that has been recognized across the university, as well as across the nation. We had originally planned on a new faculty (starting in Fall 2022) developing a new statistical course geared directly towards geosciences. However, his teaching responsibilities had to shift this past academic year when a colleague left the university. A replacement was hired who will start in Fall 2023, and plans are underway for him to develop such a course in the future.

In previous assessments, data suggested that student success increased when students completed a series of courses in an effective sequence, as opposed to those who complete the same courses in less organized ways. Both the BA and BS degrees were streamlined so that there is one basic degree pathway (in the past, students chose among three concentrations). There are now two geography concentrations, but both share the basic introductory set of course requirements. The increased student performance demonstrated by this assessment partially results from the fact that at least one cohort of student-majors are now taking courses in a more logical sequence. We believe that student performance will increase even more as more students follow the updated sequencing.

The results from this assessment, and previous assessments, will also be used to inform decision-making when it comes to course offerings developed by the new faculty member scheduled to join the department in Fall 2023. Once results from other course offerings can be assessment, additional actions will be considered.

RELATED ITEM LEVEL 1

Proficiency with Introductory Concepts in Human-Environment Relationships (Goal 4a)

Learning Objective Description:

Students will demonstrate proficiency with introductory concepts pertaining to the relationships between human and environmental systems, concepts that will serve as the foundation and pre-requisites for advanced course-work in the sub-field

RELATED ITEM LEVEL 2

Introductory Concepts of Human-Environment Interaction

Indicator Description:

Questions pertaining to introductory concepts of human-environment interaction will be embedded in exams for introductory geography courses (GEOG 1300, 2341, 2355, and 2356)

Criterion Description:

The average score will be 70% on questions pertaining to introductory concepts of human-environment interaction

Findings Description:

Students enrolled in both GEOG 1300 scored 61% on embedded questions pertaining to human-environment interaction and the nature of environmental systems, while students enrolled in GEOG 1401 scored 58%. In the case of GEOG 1300, this was a significant increase from the previous assessment. The scores for GEOG 1401 do represent an increase, although much less of a significant one. In both cases the scores were still lower than hoped, yet are basically equivalent to the overall scores for exams in the two courses. The scores on such questions incorporated in GEOG 3301 were slightly higher than the previous year. Students enrolled in this courses scored 64%, which was noticeably lower than overall exam scores. Scores in GEOG 3350 were exactly the same - 71%. Students enrolled in GEOG 4356 had never been assessed before, but enrolled students scored 73%, which was above the anticipated result.

Not data were derived from the variety of other advanced courses in geography courses (GEOG 4331, 4432, 3310, 4356, 4357), primarily because this assessment was due before data could be derived.

RELATED ITEM LEVEL 3

Acting on Assessment (BS)

Action Description:

The progress we made towards the foci emphasized after the last assessment are as follows:

Our continued efforts to enhance student ability to effectively work with maps, graphs, & statistical procedures demonstrated positive, if not significant, progress. The same was true for the teaching of introductory concepts pertaining to introductory and advanced geographical concepts. With some exceptions, student performance on embedded exam questions did improve. This was generally true for most areas of the assessment, and for most geography courses assessed.

Two clear challenges remain; the large number of students enrolled in online sections (specifically GEOG 1401 lecture/lab), and the general decline in aptitude of our students when it comes to mathematics and statistics. We feel that the success realized when it comes to student performance are due in part to our concerted efforts to utilize active-learning strategies (at least in some courses), implementing break-out sections, and emphasizing the teaching of critical skills in the hands-on environment associated with face-to-face labs that enroll smaller groups of students, etc. We will continue with these efforts, and will attempt to apply these strategies more broadly across the curriculum. Students enrolled in online lab sections cannot receive the full benefit of these efforts, for obvious reasons. This is not to say that students in online sections are not learning – in fact, there are no significant differences in overall grades when comparing online versus face-to-face sections across our curricula. That said, students in online courses/labs are clearly not learning the critical skills that we are assessing as well as they should be. The inclusion of short on-line videos are helpful, but only when students choose to watch them. We will continue efforts to encourage online student to attend face-to-face office hours, or schedule zoom meetings with the TAs/Instructors-of-record when needed.

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In previous assessments, data suggested that student success increased when students completed a series of courses in an effective sequence, as opposed to those who complete the same courses in less organized ways. Both the BA and BS degrees were streamlined so that there is one basic degree pathway (in the past, students chose among three

concentrations). There are now two geography concentrations, but both share the basic introductory set of course requirements. The increased student performance demonstrated by this assessment partially results from the fact that at least one cohort of student-majors are now taking courses in a more logical sequence. We believe that student performance will increase even more as more students follow the updated sequencing.

The results from this assessment, and previous assessments, will also be used to inform decision-making when it comes to course offerings developed by the new faculty member scheduled to join the department in Fall 2023. Once results from other course offerings can be assessment, additional actions will be considered.

Goal 5: Maintain an effective geographical curricula and strong interconnections and linkages across the curricula

Goal Description:

The Geography coordinator and an Assessment Committee will continually gage the degree to which all assessment goals are being met

Providing Department: Geography BS

RELATED ITEMS/ELEMENTS

RELATED ITEM LEVEL 1

Coordination and Interconnections Across Geographic Sub-fields (Goal 5)

Learning Objective Description:

The Geography Coordinator, in consultation with assessment committee, will continually gage the degree to which the various components of the geography curricula are effectively operating

New Update to Previous Cycle's Plan for Continuous Improvement Item

Previous Cycle's Plan For Continuous Improvement (Do Not Modify):

Closing Summary

The results of this past assessment seems to suggest that the key to increased student success (or least the key to mitigating challenges that broad in nature and somewhat out of our control) lies in three areas; 1) teaching certain key concepts in smaller, more intimate settings, 2) teaching said concepts in face-to-face settings, and/or providing supplementary material pertaining to such concepts when delivered online, and 3) teaching such key concepts in ways that facilitate more student-focused learning. This last point (#3) wasn't necessarily suggested by most of the data we used, it was largely based on a sample of just a couple course sections. Regardless, we feel it is self-evident, even if a bit anecdotal.

Obviously, there will be a demand to have larger class-sizes, as well as online courses. We plan on coping this reality by determining key concepts that require critical focus, then trying to incorporate them within lab sections (which by nature are smaller in size). A few faculty have been incorporating active learning techniques (dividing large lecture classes into groups to go over certain key concepts - thus, providing intimate environments, and fostering student-involved learning). Short videos focused on key concepts will be used in some online sections, really the only option in that form of learning environment.

We have yet to fully incorporate some of geotechnique courses into our assessment plan (at least not as fully as other courses). We will be increasingly implemented the above strategies in those courses.

We formed sub-committees to focus on assessment areas (human geography, environment/physical geography, and geotechnology). These committees have met and discussed assessment but in the next cycle will formulating lists of key concepts linked to the respective sub-fields. They will also discuss and figure out the best way to assess the learning of these concepts. I hope is to use their findings as means to modify the details of our assessment plan.

Update of Progress to the Previous Cycle's PCI:

We did successfully implement some of our plans for continuous improvement from the previous cycle. We had identified three specific goals pertaining to pedagogical enhancement: 1) teaching certain key concepts in smaller, more intimate settings: we did incorporate certain key concepts in more intimate lab environments. 2) teaching said concepts in face-to-face settings; we were able to successfully utilize “active-learning” methodologies in larger lecture courses (ex. small break-out sessions, whereby students were divided into small groups). 3) Teaching key concepts in ways that facilitate more student-focused learning; groups of students were given assignments that incorporated key concepts that then had to be shared with the larger class. We feel these endeavors are at least partially responsible for the modest increases exhibited in student performance.

Our large online sections of an introductory lab-science course increasingly utilized video as a means to supplement learning. This approach did enhance learning to a degree, but our ability to increase student performance in online-line courses was still limited to a degree.

Unfortunately, we were not fully able to incorporate all geo-technique courses into our assessment. Our inability to do so was due to developments out of our control. First, ongoing technical problems evident without our GIS labs required a lot of time and energy among GIS faculty, thus hindering their ability to provide adequate data. In addition, one GIS faculty member left the university in mid-year, while another took on two different administrative roles. These developments, combined with ongoing health challenges experienced by a third faculty member who was to serve as a key member of an assessment committee, hindered our ability to have a workable assessment committee.

New Plan for Continuous Improvement Item

Closing Summary:

Going forward our plan to improve our program, and the assessment of it, will focus on four initiatives. 1) We will formulate and implement the operation of sub-committees that will focus on the assessment of specific foci with the curricula (Environmental/Physical geography, human geography, and geospatial techniques). This will lead to a more inclusive assessment mechanism and should enable us to better organize the natural progression of skills and content subject matter from one class to another. The framework for these sub-committees are already in place.

2) Incorporate more geospatial technique courses (Intro to GIS, Applied GIS, Computer Cartography, remote sensing, etc.) into our assessment program. Anecdotally, one of the criticisms of our geospatial program from graduating students has been a lack of coherency from one course to another (at times course content is overlapped, in other ways there is no natural progression of expectations from one course to another - the courses do not build upon one another as well as they should). Future assessments will endeavor to collective determine what skills should be emphasized in each course, therefore allowing for a more coherent curriculum. This will allow us to better assess how effective these courses are at actually teaching students these skills.

3) Continue teaching important statistical skills, as well as skills with the use and interpretation of maps/charts/tables, in smaller, more intimate environments – labs, break-out sections in lectures, etc. Our efforts at doing this very thing have proven successful at enhancing student learning. Accordingly, we will build on these efforts going forward.

4) Continue to include supplementary material (videos, short videos, etc.) in on-line labs, as well as encourage students enrolled in online sections to take advantage of opportunities to virtually communicate with lab TAs and faculty. We will also continue to experiment with better ways to teach critical skills in the online environment.