

Form 201BC: Assessment Report Form for Instructional Programs
Spring, 2016

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Part I - GEOG 1000: Societies and Environments

Outcomes:

Old Outcome 5 (New Outcome IV): Apply the basic methods, questions, and vocabularies of the humanities, mathematics, the natural sciences and the social sciences. While the broad discipline of geography comprises both social and natural sciences, at Chicago State University geography is classified as a social science. Map skills and the ability to analyze and interpret spatial information are among the basic methods of this spatial, social science. This outcome fits with specific outcomes of the introductory geography course, especially to “describe locations on the earth’s surface in absolute and relative terms”, and to “demonstrate basic map reading and interpretation skills.” The assessment of the general education outcomes coincides with the assessment of the specific outcomes of the course within the discipline of Geography.

Old Outcome 8: Demonstrate an understanding of the interaction among human beings, human cultures, and the natural environments within which they live. (New Outcome VI: Demonstrate an understanding of the interaction between science and technology, society, and the environment. This general education outcome also addresses specific outcomes of the course, namely to “describe physical and human characteristics of places” and to “analyze human-environment interactions.” The transformation of the earth’s surface by human activity and the development of diverse cultural, social and economic strategies to deal with variegated environments form the basis of much geographic study. This general education outcome is well-matched with the geographic theme.

Method of Assessment

The assessment instrument that addresses these outcomes is a comprehensive map skills and map interpretation assignment, divided into three parts and completed by the students both in and outside of the classroom. Part I assesses basic map reading and interpretation skills, and Part II presents students with a series of thematic maps about issues including environmental change, human demography and migration, and the global distribution of resources. There are four versions of Part I, in which questions have been adapted to use with different topographic maps from the USGS series. This part of the assessment must be updated. See below under

- I. Basic Map Skills
 - Determine geographic coordinates of places
 - Determine distances using geographic coordinates
 - Convert map scale from representative fraction to verbal scale
 - Determine map distances using a graphic scale
 - Identify places located along primary latitudinal and longitudinal lines
 - Determine elevation and relief using contours
 - Interpret standard symbolism of U.S. Geological Survey topographic maps
 - Identify natural and man-made features, including built-up areas, land use and transportation

- II. Thematic Map Interpretation Students also use a set of maps from the student atlas that accompanies the required class textbook. This set of maps is changed regularly to provide a variety of subjects and types of symbolism, as well as to ensure the assignment differs slightly from semester to semester.
 - Write paragraphs which explain the theme and purpose of a series of maps, including a description of the type of symbolism used

- Interpret the distribution of demographic, climatic, environmental and human condition patterns
- Suggest significant findings of the map, interpreted from the spatial information provided

Assessment Findings/Interpretations/Conclusion

Table 1 - The Geographical Coordinate System and Map Scale: Fall 2015/Spring 2016 levels of achievement

	Achievement Level	N = 40	% of total
4	The student demonstrates a clear understanding of the maps, answers all questions correctly using his or her own words, and uses cartographic symbolism and spatial measurements effectively in the answer	6	15
3	The student satisfies all criteria for a “4” level, although there may be minor errors in the use of cartographic symbolism and spatial information	9	23
2	The student’s answers demonstrate a limited understanding of the maps. For example, the student makes errors in measurement, or measures correctly but reverses latitude and longitude, or confuses the hemispheres. The student makes errors in identification of map symbols.	13	32
1	There are substantial errors in the student’s answers to the questions. The answers demonstrate a lack of basic understanding of the material. The assignment may be incomplete.	12	30

Table 2 - Thematic Map Reading and Interpretation: Spring 2015 levels of achievement

	Achievement Level	N = 26	% of total
4	The student demonstrates a clear understanding of the maps, answers all questions correctly using his or her own words, and uses cartographic symbolism and spatial measurements effectively in the answer	7	27
3	The student satisfies all criteria for a “4” level, although there may be minor errors in the use of cartographic symbolism and spatial information	6	23
2	The student’s answers demonstrate a limited understanding of the maps. For example, the student makes errors in measurement, or measures correctly but reverses latitude and longitude, or confuses the hemispheres. The student makes errors in identification of map symbols.	8	31
1	There are substantial errors in the student’s answers to the questions. The answers demonstrate a lack of basic understanding of the material. The assignment may be incomplete.	5	19

Part one of the general education assessment must be thoroughly reviewed. When it was developed, classes all met face-to-face, usually in classrooms with work tables where students could work singly or in groups with large topographic maps. Increasingly, many sections are taught online, and class size for introductory, general education courses are moving to increased numbers. Strategies for introducing and practicing basic map skills in an online environment must be workshopped.

Instructors are utilizing specific focus on thematic maps and other spatial measures to reinforce ideas. Targeted use of maps to demonstrate concepts has resulted in improvement of understanding. 81% of students have demonstrated understanding of and proficiency in interpreting information presented cartographically.

Part 2 - GEOG 1100: Globalization and Diversity

Outcomes

Old Outcome 8: Demonstrate an understanding of the interaction among human beings, human cultures, and the natural environments within which they live. (New Outcome VI: Demonstrate an understanding of the interaction between science and technology, society, and the environment.) This general education outcome also addresses some of the specific outcomes of the course, namely to “describe physical and human characteristics of places’ and to “analyze human-environment interactions.’ The transformation of the earth’s surface by human activity and the development of diverse cultural, social and economic strategies to deal with variegated environments form the basis of much geographic study. Also pertaining to the interaction of human beings and human cultures, the course reviews processes of colonialism and imperialism, as well as other geopolitical relationships and their impacts in cultural production and development possibilities.

General Education Outcome #17: Demonstrate knowledge of philosophical, religious, ethical, political and scientific ideas of diverse cultures. (New Outcome II: Demonstrate an understanding of cultural diversity and interrelatedness as well as human and environment interaction) To achieve learning outcome #17, the course visits a set of themes within the major regions of the world. These themes include environment, geopolitics, culture, population and social/economic development. Covering these themes allows the instructor to review the major points of identity, conflict and cohesion, be they philosophical, religious, political or economic ideas and institutions have been shared between regions, and how these exchanges have often been accompanied by conflict.

Method of Assessment

A pre-/post-test is administered to assess student knowledge of a set of key concept and facts that the course covers, as per general education outcomes #8 and #17. The test consists of a series of multiple choice questions which span both learning outcomes, as well as short-answer questions/definitions. Each question from the pre-/post-test addresses a representative and important topic and/or concept that is key to the terrain of the learning outcomes. The test is administered at the start of the course and then at the end, in order to assess the degree to which the students have successfully achieved the learning outcomes.

A written, analytical assessment based on maps and charts is used to assess students’ ability to understand and interpret thematic maps. Students answer questions about maps and charts to demonstrate their knowledge of how spatial and/or statistical information is presented. This assessment was added in Fall 2013.

Assessment Findings/Interpretations/Conclusion

Assessing the pre-/post-test:

Out of 11 multiple choice questions, each correct answer earns 1 point.

Out of 10 short definition questions, a score of 0-2 will be applied, where:

0 = no answer, or completely incorrect

1 = partially correct answer

2 = correct information is given

Therefore, there are a total of 31 possible points for the test. A score of 1-4 will be assigned as follows:

4 (A) = 27 - 31 points

3 (B) = 24 – 26 points

2 (C) = 21 – 23 points

1 (D) = fewer than 21 points

The results include one set of data based on solely on multiple choice questions.

Achievement level	Pre-test (N = 37)	% of total	Post-test (N = 30)	% of total
4	0	0	6	20
3	1	4	6	20
2	7	19	4	13
1	29	77	14	47

Over all of the sections tested, there was a demonstrable increase in achievement between the pre-and post-tests. While no students achieved the highest level of achievement in the pre-test, 20 percent of the total did so in the post-test. The greatest increase was of students moving up from very low knowledge levels in the pre-test. 29 students or 77% of the total scored very poorly in the pre-test, but only 14 students, 47% failed to increase their knowledge appreciably. The majority achieved an acceptable level of knowledge of globalization and diversity by the test at the end of the semester.

While the grades do not reflect it, there was improvement in quite a few of the scores for those which included short-answer questions. Ten students got a better score on the post-test. Out of these, two students got eight more points, one got nine, and one got ten more points. This is not reflected in the test scores because they were still in the 'D' range, but a 10-point increase is considered by the instructor to have been substantial.

As included in previous assessment reports, the pre- and post-test method of assessment may need some work in clarifying questions. The geography faculty has met to discuss this issue. New questions and reworded questions have been submitted. There has also been faculty discussion on how to encourage students to take the tests seriously. If tests do not impact their grades students often rush through the test even when the importance of the test results is emphasized. To counter this, at least one instructor offers their students extra points on their final exam if they do better on the post-test than they did on their pre-test. Another instructor uses the pre-and post scores for assessment, but uses only the highest score for grading purposes, providing incentive to do well if the initial score was low. In earlier reports it was suggested that using a third party to administer and grade the tests might improve consistency and indicate seriousness. Alternatively, a test could be administered through surveymonkey, providing consistency for face-to-face, hybrid, and online versions of the course. There are fewer sections of the course, so future semesters may be easier to maintain consistency.

Assessing the thematic map reading instruments:

Thematic Map Reading/Interpretation (Economic Development)

	Achievement Level	N - 25	% of total
4	The student demonstrates a clear understanding of the maps, answers all questions correctly using his or her own words, and uses cartographic symbolism and spatial measurements effectively in the answer	9	36
3	The student satisfies all criteria for a "4" level, although there may be minor errors in the use of cartographic symbolism and spatial information	7	28
2	The student's answers demonstrate a limited understanding of the maps. For example, the student makes errors in measurement, or measures correctly but reverses latitude and longitude, or confuses the hemispheres. The student makes errors in identification of map symbols.	5	20
1	There are substantial errors in the student's answers to the questions. The answers demonstrate a lack of basic understanding of the material. The assignment may be incomplete.	4	16

Thematic Map Reading/Interpretation (Population and Social Development)

	Achievement Level	N - 23	% of total
4	The student demonstrates a clear understanding of the maps, answers all questions correctly using his or her own words, and uses cartographic symbolism and spatial measurements effectively in the answer	12	52
3	The student satisfies all criteria for a "4" level, although there may be minor errors in the use of cartographic symbolism and spatial information	5	21

2	The student's answers demonstrate a limited understanding of the maps. For example, the student makes errors in measurement, or measures correctly but reverses latitude and longitude, or confuses the hemispheres. The student makes errors in identification of map symbols.	4	17
1	There are substantial errors in the student's answers to the questions. The answers demonstrate a lack of basic understanding of the material. The assignment may be incomplete.	2	10

Thematic Map and Chart Reading/Interpretation (Demographics)

	Achievement Level	N - 19	% of total
4	The student demonstrates a clear understanding of the maps and demographic databases, answers all questions correctly using his or her own words, and uses demographic and cartographic information effectively in the answer	6	32
3	The student satisfies all criteria for a "4" level, although there may be minor errors in the use of demographic and spatial information	7	37
2	The student's answers demonstrate a limited understanding of the maps and demographic databased. For example, the student makes errors in interpretation of information. The student makes errors in using demographic measures and/or choropleth and distribution maps.	5	26
1	There are substantial errors in the student's answers to the questions. The answers demonstrate a lack of basic understanding of the material. The assignment may be incomplete.	1	5

This data suggests that most students are able to complete the assignments at least satisfactorily. Very few students receive the lowest level of achievement in either assignment, which is encouraging. The strong takeaway in comparing the results with previous semesters is that more students are able to achieve higher proficiency, based on the numbers. Because N continues to decrease with decreased enrollment, it becomes more problematic to compare longitudinally, and a particularly strong or weak result can alter the outlook.

Decision-making Using Findings

The Geography Program will continue to embed map skills and cartographic practice into all areas of instruction. Students require regular consistent practice to develop their basic map reading and interpretation skills. Instructors must consciously and regularly use maps in all topical areas of instruction and repeatedly require students to analyze and interpret maps. Instructors will continue to introduce the major themes from the courses early on, and return to them regularly, reinforcing concepts and ideas that are attached to the information. Major geographic ideas will be incorporated more smoothly into discussion of regions where that principal is most appropriate, to add additional context for students.

Demonstrating Improved Learning

The instructional practices appear to be helping to reinforce knowledge and skills.

Publicizing Student Learning

The assessment report is published to LiveText as part of the overall CSU Assessment initiative. Results are shared with faculty and adjunct instructors and are posted to the program website. Assessment meetings are held in the Geography program each semester and minutes are circulated.

Accomplishments and Challenges

A standardized grading rubric was created to use in map skills and thematic map interpretation assessment assignments in Fall 2012. This continued to be somewhat helpful for providing for more uniformity in grading and easier reporting of assessment measures for Spring 2015.

The importance of administering the assessments will be made clear to all faculty members when the assessment results are discussed. Other inconsistencies arise from the differences associated with online vs face-to-face instruction, special compacted 12-week sessions and summer 5- and 10-week sessions, and the increasing impact of computer-based learning, where it may not be certain that students are devoting time and effort to practicing the skills, and which might be monitored more effectively in face-to-face classes.

Another challenge discussed by faculty is the lack of basic geographic knowledge possessed by some of the students. Students begin these courses without knowing about latitude and longitude, the difference between countries and continents (in assignments asking for examples of countries that meet a specific aspect, students frequently answer 'Africa'). This can slow down the class when an instructor has to teach (or re-teach) concepts that it is expected students who are entering a university classroom would know. This is more problematic in the online courses.

Minutes of Department/Program Meeting

Assessment was discussed by Geography faculty as part of ongoing almost continual program review and reevaluation of instruction. The focus in the numerous program meetings this academic year was redesign of the major and incorporation of a new minor, rather than on general education. In 2015 Academic Program Review Committee commented on the situation where one faculty member has responsibility for all assessment for the program. Due to the small number of faculty and the administrative work assignment of two members, this situation has not changed.