General Education Annual Course Assessment Form

Course Number/Title ANTH 160 Reconstructing Lost Civilizations

GE Area R

Results reported for AY 2017-2018

# of sections: 5

# of instructors: 3

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Department Chair: Roberto Gonzalez

(Jan English-Lueck, Acting Chair)

College: Social Sciences

Instructions: Each year, the department will prepare a brief (two page maximum) report that documents the assessment of the course during the year. This report will be electronically submitted, by the department chair, to the Office of Undergraduate Studies, with an electronic copy to the home college by September 1 of the following academic year.

Part 1

To be completed by the course coordinator:

(1) What GELO(s) were assessed for the course during the AY?

Student Learning Objectives GELO #3 apply a scientific approach to answer questions about the earth and environment and GELO #1 demonstrate an understanding of the methods and limits of scientific investigation; GELO #3 was assessed in the fall and GELO #1 during the Spring.

Assessment followed the rotation established by the department, but provides an added value by examining two intersecting goals. 2017-2018 cycle. An outcome of discussions by the course instructors and coordinator at regular department meetings was that the two GELOs are integrated through instruction and difficult to accurately assess independently. Further, one GELO directly impacts the performance of students in the next GELO. Previous assessments had shown that students lacked adequate scientific backgrounds to apply scientific reasoning to the problems associated with GELO #2. In all CLO the core GE requirements of Information Literacy, Qualitative and Quantitative Reasoning, and Critical Thinking are addressed through particular assignments or parts of assignments.

The Upper Division GE writing requirement is satisfied in this course through satisfactory completion of the 2500 word Term Paper and additional written exercises.

Assessment of the GELO was carried out following the protocols shown in the matrix below.

<table>
<thead>
<tr>
<th>GE Learning Outcome</th>
<th>Assessment Instrument</th>
<th>Basic Competency Measure</th>
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</thead>
<tbody>
<tr>
<td>GELO 1 Demonstrate an understanding of the methods and limits of scientific investigation</td>
<td>Writing exercises on particular topics focusing on underlying methods. Targeted exam questions.</td>
<td>Accurate identification of methods expressed in written assignments. 85% or higher reflects competence.</td>
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<tr>
<td>GELO3 Apply a scientific approach to answer questions about the earth and environment</td>
<td>Writing exercises and in-class activities of cause-effect analysis. Targeted exam questions.</td>
<td>Correct application of developed concepts in written exercises and examinations. 85% or higher reflects competence.</td>
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The course was taught by an archaeologist and by a physical anthropologist so the various sections receive a different focus and concentration. However, the core content relative to the GELO does not vary widely. The chief difference is in reading materials. Some sections use a text and others a special reader. All sections use the same book pertaining to pseudoscience.
(2) What were the results of the assessment of this course? What were the lessons learned from the assessment?

Instructors were satisfied that during this cycle, students exhibited a greater understanding of scientific reasoning and were able to recognize and answer questions related to the scientific method, including recognizing a hypothesis. This finding is an improvement over past assessment. However, there was consensus that despite additional efforts focused on quantitative reasoning, assessment revealed major shortcomings among the students across all sections.

The instructors conducted different forms of content delivery, using lectures, readings, select videos, and simulation exercises. Simulation exercises also serve as a platform to introduce quantitative methods. Critical discussions were increased in at least three sections, and writing assignments stressed scientific methods along with critical thinking. The class discussions addressed the concept of hypothesis formulation and testing. Written assignments and term papers were structured to specifically address these learning outcomes. Midterm and Final Exams were comprehensive. Students were given assignments requiring a critical assessment of the scientific evidence used to support varied hypotheses. Examples include: simulated burial excavation and site mapping. This activity gives students an opportunity to work with a range of data and to develop statistical skills, such as significance, variable counts, percentages, and Chi-Squared analysis.

Assessment of content knowledge and conceptual understanding in all sections followed a three-point evaluation strategy: 1. objective exams, 2. written essays, synthesis papers and term papers of at least ten pages. 3. Objective questions and essays on the Final Exams required students to analyze the scientific methods presented in the films shown in class or from readings. These methods for assessment are unchanged from past instruction. Additionally, in two sections, students participated in a simulation exercises which required synthesis of material data along with critical thinking and application of scientific methods. Assessment examples. Video questionnaire: How did the Maya affect the environment? (about 90% success). Exam questions: A. What does the archaeological evidence from the early civilizations from the Indus Valley tell us about possible reasons for population movements and site abandonment? (from 60% to 80% success). B. How did climate affect the physiology and geographic distribution of Neanderthals? (about 70% success). Each question connects directly to the overarching themes of ANTH160 with data informing GELOs 1 and 3. Interestingly, students performed better when referencing a video than the readings.

Overall, instructors judged that the emphasis on scientific methods improved student comprehension. This finding held even though instructors used different approaches to content delivery. Instructors felt that by the end of the semesters students could effectively communicate the process of scientific method. The simulations are particularly effective. However, just as reported in each of the last two cycles, statistical reasoning and application remains deficient. Students did demonstrate a better understanding of the value of scientific methods but ability to apply the methods to problems solving were unchanged from previous assessment cycle of the GELO.

(3) What modifications to the course, or its assessment activities or schedule, are planned for the upcoming year? (If no modifications are planned, the course coordinator should indicate this.)

Based on assessment over two cycles the sustained focus on the character of scientific method has brought noticeable improvements across all sections. We will continue to emphasize content relevant to GELO#1 as it appears to support the other GELO. We will implement activities in all sections to sustain our efforts to support quantitative reasoning skills in tandem with critical thinking. We will continue to use the core text, Frauds Myths and Mysteries by Kenneth Feder, and have decided to reevaluate our major text, (for archaeological content) and to evaluate the comparability of the course reader with texts being used.

Modifications. Additional Action: Two objectives. 1. During the next cycle we will develop a suitable rubric for assessing Core Competencies in association with the GELO. 2. Singling out specific assessment questions to be used in all sections to increase comparability.

Part 2

To be completed by the department chair (with input from course coordinator as appropriate):

(4) Are all sections of the course still aligned with the area Goals, GE Learning Objectives (GELOs), Content, Support, and Assessment? If they are not, what actions are planned?
(5) If this course is in a GE Area with a stated enrollment limit (Areas A1, A2, A3, C2, D1, R, S, V, & Z), please indicate how oral presentations will be evaluated with larger sections (Area A1), or how practice and revisions in writing will be addressed with larger sections, particularly how students are receiving thorough feedback on the writing which accounts for the minimum word count in this GE category (Areas A2, A3, C2, D1, R, S, V, & Z) and, for the writing intensive courses (A2, A3, and Z), documentation that the students are meeting the GE GELOs for writing.

None of the sections had enrollments exceeding the recommended maximum enrollment by more than 10%,