



## Program Assessment Report (PAR)

Anthropology (ANTH) Baccalaureate Degree

REPORT PREPARED by: Owens, Geoffrey R.

ACADEMIC YEAR COVERED BY THIS REPORT: [AcademicYear]

### I. PROGRAM LEARNING OUTCOMES

- gain an awareness of scientific principles grounding the study of human origins, human biological diversity and adaptive behavior, and the importance of a biocultural approach to such studies. (Learning Outcome #1 [Biological Anthropology] from the 2019-2024 assessment plan for the Anthropology Program).

### II. PROCEDURES USED FOR ASSESSMENT

#### A. Direct Assessment

Direct Assessment The students will be assessed using multiple choice marker questions in examinations in both the Core Biological Anthropology Class (ATH 2100) offered in Fall of 2019 and Spring of 2020, and upper level Bio ATH electives ATH 3310, offered in Fall 2019, and ATH 3110, offered in Spring 2020.

#### B. Scoring of Student Work

Scoring of Direct Assessment Since these marker questions were based on multiple choice responses, grading was conducted, either through CAT's testing services' processing of scantron data, or electronically, using Quiz Examination feature in Pilot. Scantron data was used in face-to-face settings, while Pilot was used mainly in online course delivery environments. The scoring simply involved tabulating the percentages of students who replied to each of the choices. Although the original assessment plan indicated sampling of 10-20 students per class, all student data were included since they were available as quantitative readouts. In accordance with the 2019-2024 Assessment Plan, the findings were benchmarked at 70% (i.e. if 70% or greater of students answered correctly, this will serve as a direct indicator of students as a whole as having met the

learning outcome).

### **C. Indirect Assessment**

Indirect Assessment The students will be assessed indirectly using results from a major's survey distributed to all anthropology students in the late fall and spring. Originally envisioned as an exit survey, it has been regularly offered to all current majors and prospective majors due to the small number of graduating seniors and unreliability of respondents returning their surveys. Scoring of Indirect Assessment The following questions were examined because each had the option of identifying an interest in the subdiscipline of biological anthropology and an assessment of whether there should be more course offerings in this subdiscipline Q6 In which of the three subfields does your primary interest in anthropology lie? Q12 Please indicate your thoughts on the following course offerings in terms of regularity of offerings. Q29 The 5-year plan focused on the following core areas. Please circle the answer that best describes your level of SATISFCATION with the features of the department described.

### **III. ASSESSMENT RESULTS/INFORMATION:**

Assessment- Core course ATH 2100 and Upper Level Assessment- 3310 (Fall 19) and ATH 3110 (Spring 20) Overall, Outcome 1 performs a double duty it both teaches the students about the scientific method more generally, while at the same time focusing on the aspects of this method that are most commonly applied in the subfield of biological anthropology. So, the marker questions present three categories of applications to the scientific method Its capacity to assert truth statements versus examining and testing hypotheses, evolutionary theory as a particularly important application of the scientific method within the discipline, and the concept of race, in that it is a cultural rather than biological category of explaining human variation (i. e. there is no scientific basis for talking about race). Assessment Major survey (indirect indicator) The majors survey provides general questions about student satisfaction in the various subdisciplines, including biological anthropology. It is an indirect indicator, since the ability to find courses in the subfield, and their general satisfaction, might indicate their exposure to outcomes on scientific method and therefore higher likelihood of learning the outcomes.

For the most part, students in the Introductory Biological Anthropology class did well in questions related to the scientific method generally, with one notable exception. In both spring and fall, questions involving the scientific method's ability to assert truth statements were ones where students struggled. In particular, a question as to whether hypotheses can become theories, and theories eventually become laws was one in which students struggled both semesters. With regard to race, introductory students in the fall section did

quite well in recognizing race as a cultural concept, rather than a biological and therefore scientifically-based category. In the spring term, students hovered closer to the 70% benchmark for most questions regarding race, but for the most part displayed an emerging competence in understanding the non-scientific basis of race. As far as evolutionary theory, this is where introductory students seemed to struggle the most. Most notably, many students in both semesters had difficulty viewing evolution as gradual change over time. Questions describing evolutionary change as a series of discrete “links” (which is incorrect), were often viewed as accurate. In the upper level Human Evolution class in fall, 2019, students demonstrated a greater competence in understanding basic ideas surrounding the scientific method, evolutionary theory and race as a cultural category than students in the introductory courses. Where they performed most disappointingly is in questions regarding whether scientists are capable of making proof claims (which is false; though students did more successfully avoid stating that scientists made truth statements). In the upper level Forensic Anthropology in spring of 2020, students dealt with more applied questions, in which they evaluated which methods were most appropriate for determining time of death, determining the difference between morphological and metric data, and the methods for processing a scene in which a fatality had occurred. With regard to the majors survey (indirect indicator), this assessment focused on three questions in the survey: Q 6, indicating which subfield most interested the student, Q 12, whether they felt that enough biological anthropology courses are being offered, and Q 29, where students are asked if they were satisfied with the biological anthropology courses being offered. Of the eight students who responded to the survey, 2 expressed a special interest in biological anthropology above other subfields; 7 out of 8 believed that biological anthropology was being regularly offered, and 6 out of 8 students were “somewhat” or “very” satisfied with the biological anthropology courses that were offered.

When students underperformed in ATH 2100, the introductory classes, in demonstrating mastery of these concepts, a likely explanation is that instructors often find themselves struggling with trying to undo misinformation that circulates outside of academia about race, science and evolution. In many instances, it is easier to teach students who come to class with virtually no familiarity with a subject, and therefore with no preconceptions that will work against ideas being presented in the class, than it is to “unlearn” bad information that they may have received in the past. Students in this class probably self-select, and therefore are probably in a better position than the general population to be open to learning new things about these subjects. But instructors may be working against powerful forces that misconstrue the nature of the scientific method and its capacity to expand knowledge. Students in upper level anthropology courses have already had greater exposure to ideas about the scientific method, the concept of race as culture, and evolutionary theory than the general student population. Since the introductory class is usually taken before the upper level electives, they will have already had some exposure to the concepts, and had opportunities to unlearn any misinformation they received prior to enrolling at WSU. However, while students on the upper level do better at grasping the concepts in general terms, they struggle then shifts to applying

the scientific method to specific scenarios in courses such as forensic anthropology. It is understandable that sometimes, real mastery will be more accurately demonstrated in applying the concepts, rather than through expressions of abstract and general statements about them. Thus, one would expect that their mastery of the content continues to emerge throughout their college career as they go from exposure to familiarity to application. Students for the most part hovered more closely to the 70% benchmark. This somewhat weaker response may have been due to the complexity of the questions being asked, their applied nature, or the simple fact that the testing instruments were administered during a time when learning was forced to be taken online due to the COVID pandemic. With regard to the majors survey (indirect indicator), this survey seems to indicate that students are taking sufficient courses in the subfield of biological anthropology, and that they seem to be expressing interest and satisfaction in the courses being offered. This suggests that students are gaining sufficient exposure to scientific methodology, and have been developing a willingness to learn more about this aspect of the discipline.

#### **IV. ACTIONS TO IMPROVE STUDENT LEARNING**

The data were provided to the four members of the Anthropology Faculty by our biological anthropologist, Dr. Amelia Hubbard. The data were collated and the survey analyzed by Dr. Geoffrey Owens. Four of the five learning outcomes being assessed in our five-year plan focus on a specific subfield within Anthropology; and thus data will be provided next year by our archaeologist, Dr. Lance Greene. The Anthropology faculty, having discussed the learning outcomes in the context of our monthly curriculum meetings, all agree that the Biological Anthropology program has enjoyed considerable success, not only in guiding student towards meeting the learning outcomes for the program, but also as a means of recruiting and retaining students. The introductory biological anthropology class, ATH 2100, regularly has over 100 students per semester. The evidence from this assessment indicates that there is evidence of progressive learning as students go from the introductory course into the upper level electives and applied courses. There may be limited room for significant improvement, so long as the Wright State University administration cuts support for programs. Since 2016, we have lost one faculty member who taught within the subdiscipline of biological anthropology, and have lost access to full-time graduate TAs who provided significant support, especially in the labs that are associated with the courses in this subfield. And all of this also occurs in the context of a demand by the administration to increase class sizes, which makes it increasingly challenging to provide the one-on-one attention that enables students to successfully meet these outcomes. For the student survey, we are proposing to make two changes: (1) add explicit questions as to whether students feel that they have met the learning outcomes in the program and (2) Use Qualtrics as a way to deliver the survey, in the hopes that this will result in greater response.

#### **V. SUPPORTING DOCUMENTS**

Additional documentation, when provided, is stored in the internal Academic Program Assessment of Student Learning SharePoint site.

