



**ANNUAL PROGRAM REPORT**

College	Letters, Arts, and Social Sciences
Department	AGES: Anthropology, Geography & Environmental Studies
Program	Anthropology (BA), Geography (BA/BS), Environmental Studies (BA)
Reporting for Academic Year	2017-2018
Last 5-Year Review	2014-2015
Next 5-Year Review	2021-2022
Department Chair	David Larson
Date Submitted	October 15, 2018; December 7, 2018 (Assessment)

**I. SELF-STUDY**

**A. Five-Year Review Planning Goals**

*Present your planning goals from your last 5-year plan*

1. Provide students with the knowledge and skills essential to our disciplines, and with the ability to think analytically about the problems of Humanity and Earth.
2. Restructure our curriculum to be ever more intellectually stimulating, personally fulfilling, and relevant to the career goals of our students.
3. Place more of our courses in the university’s General Education offerings as a means of increasing the number and diversity of majors in each of our programs.
4. Raise the visibility of our department, and thus steer transfer students to our programs, by fostering ties with the region’s community colleges.
5. Increase the breadth and depth of our faculty by seeking a new tenure-track position that emphasizes the ties between environment, culture, and everyday life in California in general and in the San Francisco Bay Area in particular.

**B. Progress Toward Five-Year Review Planning Goals**

*Report on your progress toward achievement of the 5-Year Plan. Include discussion of problems reaching each goal, revised goals, and any new initiatives taken with respect to each goal.*

Goal #1. Faculty teaching upper-division courses featuring specialized techniques and research methods in all three programs are constantly incorporating new ways for students to think analytically and problem-solve. The department’s field courses get new equipment on a regular basis. The GIS Lab received a major refresh in 2017-18, with faster computers, larger monitors, and software packages that had, for us, previously been cost-prohibitive. The senior capstone courses in all three programs now include group projects to enhance students’ ability to think analytically while working in teams. Preparing majors in

Anthropology, Geography and Environmental Studies for a rapidly evolving work environment has been and continues to be an AGES imperative. A significant problem encountered in recent years, made all the more apparent in AY 2017-18, has been the inadequate quantitative skills of incoming students. The mitigation has been to spend additional time teaching what should have been learned previously. The extra time afforded by semesters will help.

Goal #2. AGES programs used the semester conversion process to restructure the respective curriculums to enhance the undergraduate experience for majors and non-majors alike. The curricular re-design was informed by workforce imperatives. *Anthropology* was converted into a program that reflects the academic strengths of current and (it is hoped) future faculty: The Archaeology and Biological Anthropology Concentration now better represents the academic expertise of the current faculty. A more intellectually rigorous capstone course (ANTH 431: Advanced Anthropological Theory) was added to the core requirements. *Geography* in the semester system will consist of the BS program only (the BA having been allowed to expire with the close of the quarter system). Concentrations were created, one of which includes a cluster of courses that were the backbone of the BA. More emphasis will now be placed on developing quantitative and graphical skills that have workforce applicability. *Environmental Studies* was transformed with the goals of preparing our students for careers in sustainability and environmental justice; developing enhanced problem-solving skills through multi-disciplinary approaches; and to take advantage of potential synergies arising from having three academic programs in one department.

Goal #3: With the moratorium on curricular changes still in effect during 2017-18, opportunities to place more AGES courses in the university's GE program did not exist. But on semesters, AGES programs will have a wider footprint in GE. While GE designation was sought and secured for all but one AGES courses that were in the quarter-system B6 or D4 arrays, the implementation of the new Overlays has allowed for a broader AGES presence. ANTH 342 (Language and Sexuality) and ANTH 372 (Medical Anthropology) were approved for the Diversity Overlay; ANTH 333 (Women in Cross-Cultural Perspective) and ANTH 341 (Linguistic Diversity and Social Justice) for the Social Justice Overlay. GEOG 340 (Climate Change), GEOG 455 (Sustainable Food Systems), GEOG 465 (Sustainable Communities and Development), ENVT 101 (Environmental Challenges of the 21<sup>st</sup> Century), ENVT 307 (Social Impact through Sustainable Solar Design), ENVT 330 (Environment, Sustainability and Social Justice) and ENVT 447 (Energy, Climate and Society) all were approved for the Sustainability Overlay. The subject-matter breadth represented by these courses should expose AGES programs to a larger cross-section of the undergraduate student body, including undeclared students or those who are considering changing their major.

Goal #4: With the conversion to semesters came the opportunity to align all three AGES programs with the lower-division transfer patterns used by California's community colleges. Geography was the AGES program most in need of alignment and that has been achieved. With the programs aligned and the university now on semesters, we expect each of the programs to be more attractive to transfer students. The department's visibility on campus has been enhanced by widespread praise for the Museum of Anthropology's feature exhibit the past two years and the re-emergence of faculty-sponsored student clubs.

Goal #5: As has been noted in previous program reviews, AGES's hiring plan is committed to bridging fluid disciplinary boundaries to reshape the department with *positions that will contribute to the curriculum of more than one program*. The first proposal in the current Five-Year Plan is a hybrid position in *Environmental Anthropology*. A 2017-18 proposal for this position was unsuccessful. In a year of reduced

tenure-track searches campus-wide, this position was not one of the four advanced by the CLASS Dean. It will be resubmitted in 2018-19.

Position: *Environmental Anthropology (hybrid)*

The preferred candidate will have expertise in some combination of cultural ecology, conservation, urbanism, and sustainability. The Socio-Cultural Anthropology concentration has no regular faculty member at present. Courses currently existing and those to be created by the new hire will contribute to two of the three programs in AGES.

### **C. Program Changes and Needs**

*Report on changes and emerging needs not already discussed above. Include any changes related to SB1440, significant events which have occurred or are imminent, program demand projections, notable changes in resources, retirements/new hires, curricular changes, honors received, etc., and their implications for attaining program goals. Organize your discussion using the following subheadings.*

**Overview:** AY 2017-18 was like no other since the merger of Anthropology with Geography & Environmental Studies that formed AGES in 2013-14. Transitions and far-flung faculty were the salient bywords. Professor Laurie Price, the lone remaining socio-cultural anthropologist, whose expertise includes medical and ethnographic anthropology, completed her FERP. This followed the full retirement of Professor Scott Stine (Geography & Environmental Studies), an internationally recognized authority on climate change and geomorphology. Those away from campus included Professor Michael Lee, who spent the year serving as the Resident Director of CSU in Spain. He was the first faculty member in the history of our university to have been selected to fill this prestigious system-wide position. And Professor Gary Li continued his multi-year research project in the Kenai Peninsula, Alaska, studying the feasibility of extracting methane from saturated sand beds. His work is funded by World Oil Company Ltd (Hong Kong), which buys out 55% of Prof. Li's annual time base. He continues to teach environmental survey classes online from his research site. Associate Professor Henry Gilbert, a biological anthropologist, was on unpaid personal leave throughout the year.

The regular faculty in residence in AY 2017-18 were contributors in multiple realms. Professor Karina Garbesi, Director of the Environmental Studies program, continued her collaboration with Physics Chair Erik Helgren on teaching and community engagement projects surrounding their innovative work on the social impact of solar energy design. Their latest accolade is the system-wide 2017-18 *Faculty Innovation and Leadership Award* from the CSU Chancellor's Office. Professor Andrew Wong, who serves as the Director of the International Studies program, was typically active in his scholarship and curricular expertise, delivering papers at international conferences and serving as one of the university's faculty experts in Online and Hybrid Course Quality Transformation. Associate Professor David Woo was AGES's representative to the Bay Area's professional mapmaking community and to the Asian Pacific American in Higher Education (APAHE) conference. Assistant Professor Albert Gonzalez, Director of the C.E. Smith Museum of Anthropology, took over from Prof. Gilbert as P.I. for a National Endowment for the Humanities and California Humanities grant ("Against All Odds: Native Californian Stories of Endurance and Continuance"), received his own Faculty Support Grant, and

designed the Museum's widely praised 2018 exhibition. AGES Chair Professor David Larson continued his service as the Faculty Athletics Representative, appointed by the President to represent the university in its relationship to the NCAA and the California Collegiate Athletic Association.

Contributing to faculty governance is an annual goal for AGES faculty. The Academic Senate included two representatives from AGES: Prof. Garbesi served on the Executive Committee as the Vice Chair of the Senate and Lecturer David Matsuda was one of the four elected Lecturer representatives. Prof. Gonzalez was a member of Committee on Research. Prof. Larson was the elected CLASS representative on UARC (University Administrative Review Committee) and continued his service as the CLASS rep on the FAC subcommittee charged with revising the RTP document for the semester system. With the exception of Prof. Gonzalez, all will return to those faculty governance roles in AY 2018-19.

As has been noted in previous reports, the awards, buy-outs and appointments of regular faculty, not all of which are detailed above, amount to a significant amount of release time from teaching. And so the part-time faculty in AGES received more opportunities than ever to make contributions to all three programs. Strategic class scheduling coupled with the flexibility of part-time faculty resulted in robust enrollment numbers throughout AY 2017-18. In response to receiving its highest-ever SCU/ FTES targets for each of the three quarters, AGES produced noteworthy results:

Fall 2017: 322 FTES (110% of target)

Winter 2018: 296 FTES (103%)

Spring 2018: 274 FTES (98%)

One structural/administrative change to AGES occurred in AY 2017-18. Prof. Wong, who had been serving as the Interim Director of the International Studies, had the Interim tag removed and received a 3-year appointment. He follows Prof. Michael Lee, who served as the previous director. As a consequence of AGES faculty having directed the INTS program for the past four years and at for least the next two, CAPR approved a request initiated by the CLASS Dean to move International Studies to the administrative control of AGES. Although the multidisciplinary INTS program has only two courses with the INTS prefix (therefore negligible FTES), there are 50+ INTS majors that will be figured into the AGES headcount going forward. The International Studies program completed its 5-Year Program Review in AY 2017-18.

**Curriculum:** The ANTH BA, GEOG BS, ENVT BA (and INTS BA) programs, including majors minors and certificates, all were approved and are ready for the start of the semester system. The remaining curricular issue that needed resolution last year was formal approval of the Concentrations in the GEOG BS. The proposed Concentrations, an official curricular designation, required approval by the Chancellor's Office; but due to an oversight on our campus that step was not taken. Consequently, the placeholder term "Pathways" was used during the construction of the Degree Audit Report. Appropriate approvals were secured from the CO, CIC and the Academic Senate in time for Concentrations to be incorporated into the DAR.

*SB1440* played heavily in the semester conversion of the ANTH and GEOG programs. Lower-division courses that did not articulate with community college courses were either removed from LD core or allowed to expire with the quarter system. Effective Fall 2018, the LD core in ANTH and GEOG are

aligned with the schema for the transfer degree in those majors. The LD core in ENVT now consists of courses that articulate with those commonly offered by California community colleges.

**Students:** Institutional Research, Analysis and Decision Support data for Fall 2017 shows there were 97 undergraduate majors in AGES programs; this is down from 104 in Fall 2016 and 121 in Fall 2015. The loss of undergraduate majors in ANTH over the last three years is largely attributable, the faculty feels, to the socio-cultural area of the discipline being without a regular faculty member. The entire curriculum in this area is taught by part-time faculty. Geography has fallen by 8 majors and Environmental Studies by 6.

The overall decline in the total number of students in AGES programs extending back to Fall 2013 (170 then, 100 in Fall 2017) is in significant part a result of the department making the decision, after consultation with the CLASS Dean, to allow the two MA programs (Anthropology and Geography) to expire with the end of the quarter system. At the time serious planning for semester conversion began, a carefully considered decision was made to *not* convert the two graduate programs. In the years immediately prior it had become increasingly difficult to recruit new graduate students who would commit to enrolling in multiple classes each quarter. As a consequence, graduate seminars with fewer than a dozen students were regularly taught. The Dean felt, and the faculty concurred, that this ratio would not be sustainable on the semester system with its increased cost structure. So the MA programs ceased admitting new students in Fall 2014. Faculty worked with already enrolled students who were making meaningful progress complete their degree program by summer 2018. The steady downward slide in overall headcount between 2013 and 2017 largely reflects the departure of graduate students, those earning their degree (the majority) and others who did not complete the program by the designated finish line. In AY 2013-14 there were roughly 40 graduate students combined in the two programs. By fall 2017 there were half a handful. Subtracting the erosion of the graduate students, whose numbers could not be augmented, the AGES headcount of majors has declined, but not dramatically, over the past five years.

Undergraduate students in AGES programs continue to make their presence felt on campus and in the community. The Office of Sustainability annually hires multiple Environmental Studies majors to serve as Sustainability Ambassadors for the university. They assist in new and ongoing research projects on campus that will help the university achieve its sustainability goals: fulfilling the requirements of the mandated Climate Action Plan; reducing water consumption; assessing the composition of the food waste stream; and studying the feasibility of implementing a large-scale composting operation. Off campus, students trained by Prof. Garbesi in the construction and installation of so-called “solar suitcases” have assisted science teachers in the Hayward School District and, working in teams, installed these devices in impoverished areas, particularly Native American communities throughout the state. Anthropology majors with training in curation and working as docents, ensure that the Museum of Anthropology remains open to the public throughout the academic year and especially after the major exhibit opens. ANTH students with interest in archaeology have ably assisted Prof. Gonzalez in his work at the Peralta Hacienda in Oakland’s Fruitvale District. AGES students majoring in all three programs participated in academic or professional conferences over the past year and half, contributing to paper and poster sessions. On campus, the Anthropology Club, under the faculty sponsorship of Dr. David Matsuda, has become a vibrant academic support and social networking group.

**Faculty:** As was noted in the **Overview**, in AY 2017-18 virtually every regular faculty member had some or (in two cases) all of their teaching workload reduced by grants, contracts, appointments or personal leave. Consequently, classes taught by part-time faculty increased to the highest number and

percentage of the total classes taught since AGES was formed. This has resulted in new annual contracts for quarter-by-quarter instructors and increases in the time bases for long-time Lecturers. For the start of the semester system, AGES will have three (3) Lecturers with 3-year entitlements and five (5) with annual contracts with time bases ranging from .80 to .45. Collectively, the part-time faculty has ensured that AGES curriculum has been appropriately covered and its FTES count highly respectable while regular faculty have been pulled away from the classroom by research opportunities and administrative appointments. The lone departure in AY 2017-18 resulted from the FERP expiration for Professor *Emerita* Laurie Price, whose curricular expertise will not be entirely covered by part-time faculty.

**Staff:** AGES hired a dedicated Administrative Support Coordinator (ASC) in Winter 2017, so AY 2017-18 was the first full year Jennifer Palmer served the department. Her probationary period concluded last year and so she is officially on for the long haul. Her administrative responsibilities include full service for all students majoring in Anthropology, Geography, Environmental Studies and International Studies (approximately 150 majors). AGES also has the bookkeeping and accounting services of Catherine Cyr, who primarily serves Theatre & Dance and also occupies the Robinson Hall administrative hub, the outgrowth of the CLASS Dean's vision to consolidate administrative services in one location to better serve faculty and students in multiple academic programs. One other staff "change" in AY 2017-18 was completion of an updated position description for the Assistant Director of the Museum of Anthropology, Marjorie Rhodes-Ousley. The responsibilities of this position now includes the need to secure A2E2 and other funding to support preparations, including the hiring of student docents, for the Museum's annual exhibit. This modification formally recognizes the work that the Assistant Director has been doing for the past three years.

**Resources:** (*facilities, space, equipment, etc.*)

The most important resource requests by AGES in AY 2017-18 were answered affirmatively! The department's dedicated Geographic Information Science and Computer Cartography Lab was in dire need of a refresh. An application for A2E2 Institutional and Research Equipment (IRE) funding for new computers, larger monitors with higher resolution, wireless printers, and more sophisticated software packages and site licenses was approved as submitted. Now 22 workstations used by students in five of AGES's "technology" courses are near state-of-the industry. Other requests for equipment and instruments used in geography, environmental studies and archaeology field courses were also largely funded. And A2E2 funding supported the installation of the Anthropology Museum's annual exhibit.

One significant request for additional space was also approved by the CLASS Dean. Assistant Prof. Albert Gonzalez requested the conversion on unoccupied space adjacent to his office for the creation of his long-sought "Mud Lab," formally referred to as the Pacific Earthen Architecture Research Laboratory (PEARL). The lab, an interdisciplinary research and hands-on teaching space, will be dedicated to the archaeological-experimental construction of earthen architectural materials by CSUEB faculty and students as well as to the analysis of prehistoric, historical, and contemporary earthen architecture by academics everywhere. The modest initial funding will be covered by the AGES' Supplies and Service budget. In the future, A2E2 or external funding may be requested to offset some operational costs of the facility.

**Assessment:** Discussed in **Summary of Assessment**

**Other:** (*e.g., major program modifications*)

None not already described elsewhere in this report.

## II. SUMMARY OF ASSESSMENT

### **Program Learning Outcomes (PLO) for ANTHROPOLOGY**

**PLO 1:** identify, summarize and sequence the basic schools of anthropological thought in all four academic sub-fields of the discipline.

**PLO 2:** apply basic qualitative and quantitative sociocultural (ethnographic), archaeological, or osteological research methods and skills.

**PLO 3:** describe, compare and relate human cultures across different regions of the globe.

**PLO 4:** examine human diversity holistically and scientifically, discriminating among and analyzing conceptions and misconceptions of ethnicity, “race,” and human biological variation.

**PLO 5:** identify pragmatic uses of anthropological methods and perspectives in approaching real-world solutions, and identify instances of and opportunities for applications of anthropological tools and ideas in employment and community development, both locally and globally.

**PLO 6:** communicate information clearly in written and oral forms.

### **Program Learning Outcome(s) Assessed**

**PLO 3:** describe, compare and relate human cultures across different regions of the globe.

### **Summary of Assessment Process**

**Instrument(s):** An assessment assignment in ANTH 3800 (*Language and Culture*).

**Sampling Procedure:** The sample included all the students who took ANTH 3800 (Language and Culture) in Spring 2018. ANTH 3800 (“Language as a social and cultural phenomenon. The structured nature of language, key approaches to the study of language and culture, and linguistic-anthropological research on language-related social issues.”) is a required course for ANTH majors.

**Sample Characteristics:** 21 of the 34 students who took ANTH 3800 in Spring 2018 were ANTH majors or minors.

**Data Collection:** In Week 10, students were asked to complete this assessment assignment: “Upon completion of the BA Program in Anthropology, students are expected to be able to ‘describe, compare, and relate human cultures across different regions of the globe.’ Discuss, **with examples**, how this course has helped you achieve this objective. Your answer should be about 300 words in length.”

**Data Analysis:** I used a rubric (see attached) to grade the essays and tabulated the scores.

### **Summary of Assessment Results**

**Main Findings:** 29 of the 34 students in ANTH 3800 completed the assignment. They all received a passing grade (50% or over) and achieved this PLO, but some did better than others. Here’s the distribution of their scores:

90%-100%: 14

80%-89%: 0

70%-79%: 10

60%-69%: 0

50%-59%: 5

Under 50%: 0

All 29 students were able to discuss how the course helped them achieve the objective of being able to “describe, compare, and relate human cultures across different regions of the globe.” The majority of them provided concrete examples, but some (i.e., the ones in the 50%-79% range) had trouble relating the examples to concepts, theories, and methods (e.g., cultural relativism, participant-observation) discussed in the course.

**Recommendations for Program Improvement:** Core anthropological concepts, theories, and methods (e.g., participant-observation, cross-cultural comparison, cultural relativism, holistic approach) that help students describe, compare, and relate human cultures across different regions of the globe should be introduced in the lower-division core courses (e.g., ANTH 130). Students should then be given ample opportunity to apply them in a variety of upper-division core and elective courses.

**Next Step(s) for Closing the Loop:** I will clarify in lectures and class discussions how these anthropological concepts, theories, and methods help us describe, compare, and relate human cultures across different regions of the globe.

**Other Reflections:** Many students appreciated the opportunity to learn about other cultures and compare them with their own.

	<b>Novice</b>	<b>Competent</b>	<b>Proficient</b>
<b>Understanding of Key Concepts</b>	Points: 0 (0.00%) The essay demonstrates an inadequate understanding of how linguistic anthropologists describe and compare different cultures around the world.	Points: 2.25 (22.50%) The essay demonstrates an adequate understanding of how linguistic anthropologists describe and compare different cultures around the world.	Points: 4.5 (45.00%) The essay demonstrates an excellent understanding of how linguistic anthropologists describe and compare different cultures around the world.
<b>Use of Examples</b>	Points: 0 (0.00%) No example is provided.	Points: 2.25 (22.50%) Examples are provided, but it is unclear how they show the relevance of linguistic anthropology to this learning objective.	Points: 4.5 (45.00%) The examples clearly show how linguistic anthropology is related to this objective.
<b>Structure</b>	Points: 0 (0.00%) Writing is unclear and disorganized. Thoughts ramble and make little sense. There are numerous spelling and grammatical errors throughout the essay.	Points: 0.5 (5.00%) Writing is unclear and/or disorganized. Thoughts are not expressed in a logical manner. There are more than four spelling or grammatical errors.	Points: 1 (10.00%) Writing is clear, concise, and well organized. Thoughts are expressed in a coherent and logical manner. There are no more than two spelling or grammatical errors.

## **Assessment Plans for Next Year**

In Spring 2019, ANTH will assess PLO 1 in Anthropology 431 (Advanced Anthropological Theory):

PLO 1: Identify, summarize and sequence the basic schools of anthropological thought in all four academic subfields of the discipline.

There will be several writing exercises, a term paper and/or a final exam. A yet-to-be-developed rubric will be used to assess students' knowledge of the basic schools of anthropological thought.

## **SUMMARY OF ASSESSMENT**

### **Program Learning Outcomes (PLO) for *GEOGRAPHY***

This assessment is of PLO2 using the quarter course GEOG 3410 Air-Photo Interpretation. Now that the program is on the semester system, a new assessment protocol will be developed to match the new program PLOs for the GEOG BS degree which are:

NEW PLO 1 Synthesize geographic knowledge, apply research strategies and use quantitative tools to solve problems of a geographic nature and relevant to a changing world (e.g. in resource management, spatial analysis, environmental change, and sustainable development)

NEW PLO 2 Identify and communicate key geographical processes, ideas, concepts and outcomes orally, in writing, and through the use of geographical information systems (GIS) and other spatial representations

NEW PLO 3 Identify, describe and explain the environmental, social, cultural, economic and other key characteristics and dynamics of different world regions

NEW PLO 4 Demonstrate effective teamwork ability by contributing to successful execution of group projects in the classroom, GIS laboratory and/or in the field

NEW PLO 5 Identify, describe and explain how local, regional and global environmental, human societal, and economic processes and their outcomes are related to sustainable development

### **Program Learning Outcomes (PLO) for the Quarter System**

PLO 1: demonstrate a broad and deep understanding of the fundamental concepts and techniques of the discipline of Geography;

PLO 2: prepare, use, and interpret maps and other spatial data with and without the aid of computers;

PLO 3: communicate geographic ideas, perspectives and conclusions clearly and persuasively orally, in writing and through maps and graphics;

PLO 4: think critically and apply analytical and quantitative reasoning to assess problems across local, national and global geographic scales and to effect practical and sustainable solutions both as an individual and within a team;

PLO 5: demonstrate their knowledge of the characteristics and cultures of two world regions in addition to their own.

### **Program Learning Outcome(s) Assessed**

**PLO 2** prepare, use, and interpret maps and other spatial data with and without the aid of computers

## Summary of Assessment Process

**Instrument(s):** Practical assignments in GEOG 3410 (*Air-Photo Interpretation*)

**Sampling Procedure:** The sample included all the GEOG majors who took GEOG 3410 in the Fall Quarter 2017. GEOG 3410 (“The principles of airborne remote sensing and image interpretation for environmental resource management. Hands-on experience in photogrammetric stereoscopy and image measurement of spatial data.”) is one of the two technical course options for BA majors and a required course for BS majors.

**Sample Characteristics:** 6 of the 20 students who took GEOG 3410 in the Fall quarter 2017 were GEOG majors.

**Data Collection:** Student coursework assignments (4) were used to assess this SLO using a rubric developed and applied in a previous Year (2015-16).

**Data Analysis:** We used a rubric (see attached) to review the four assignments and determine student demonstration of four Course Learning Outcomes (CLOs) as follows. Note that based on the previous assessment, one CLO was removed from the rubric this year as it was no longer assessed as part of the normal course instruction and assessment:

CLO 1 Ability to extract vital information and establish 3-D viewing from a stereo-pair of aerial photographs

CLO 2 Ability to correctly and accurately use aerial photograph scales for ground target measurements

CLO 3 Ability to correctly and accurately use various methods to estimate ground target heights from aerial photographs

CLO 4 Ability to correctly calculate the necessary flight parameters and accurately create scaled aerial survey flight plan based on the nature of the study area and survey objectives

The student work was collectively reviewed by the GEOG Assessment Committee (Larson, Lee and Woo) using normative statements that described what constituted advanced proficiency, proficiency, developing and lacking development with respect to each aerial photogrammetric skill (see rubric).

- Advanced proficiency – fully capable of independently performing aerial photogrammetric tasks in a professional work environment.
- Proficient – fully capable of performing aerial photogrammetric tasks in a professional work environment with appropriate supervision.
- Developing – not yet fully capable of performing aerial photogrammetric tasks in a professional work environment and requiring of additional practice.
- Lacking development - unable to adequately perform tasks in a professional work environment

## Summary of Assessment Results

**Main Findings:** 6 of the 20 students in GEOG 3410 completed the assignment. The results of the review are listed in Table 1 below. A score of 3.5 or higher means that the student got a preponderance of advanced proficiency judgments for the attributes evaluated using the rubric, hence the higher designation is applied. A score of 3.5 to 2.5 suggests a preponderance of proficient scores with the odd developing score not balanced by a mastery score, thus the proficient designation is applied. A value less than or equal

to 1.5 suggests a preponderance of developing or lacking development scores and thus the lower designation (SLO not yet attained by the student) is warranted. Table1 shows that all six majors completing the class in the Fall Quarter of 2017 met the overall standards of the SLO articulated in the rubric with three showing proficiency, capable of supervised work in a professional environment (minor errors in procedure or outcome), and three showing clear mastery, capable of independent work in a professional environment (no or very occasional minor errors). Overall, the students showed the best learning outcomes for CLO 1 Ability to extract vital information and establish 3-D viewing from a stereo-pair of aerial photographs with the five students for which data was available judged to have achieved clear mastery based on the combined judgments of the three assessors.

TABLE 1: Scores for students for CLOs 1-4

Geography SLO 2 : Prepare, use, and interpret maps and other spatial data with and without the aid of computers								
Course LO map to PLO	Air Photo Interpretation Ability	Student 1	Student 2	Student 3	Student 4	Student 5	Student 6	AVERAGE SCORE
2.1 (labs 1&2)	Ability to extract vital information and establish 3-D viewing from a stereo-pair of aerial photographs	4.0	4.0	3.7	3.7	NA	3.7	3.8
2.2 (labs 1&2)	Ability to use aerial photograph scales for ground target measurements	4.0	3.7	3.3	3.3	4.0	3.5	3.7
2.3 (labs 1&2)	Ability to use various methods to estimate ground target heights from aerial photographs	4.0	3.3	3.0	3.3	4.0	3.0	3.5
2.4 (labs 3&4)	Ability to use aerial photo interpretation to do land use and land cover analysis	4.0	3.0	3.5	3.0	3.3	3.5	3.4
PLO 2	OVERALL ABILITY	4.0	3.5	3.4	3.3	3.8	3.4	3.6

**Recommendations for Program Improvement:** One weakness among some Geography students is the lack of quantitative preparedness to deal with the mathematics required in this course. It is recommended that additional quantitative tutorials and exercises to be included in the first few weeks of the course to

help students who are mathematically challenged. In addition, it is recommended that a special lecture on basic geomorphologic terminology be included at the beginning of the course to help students without the proper background to perform well in aerial landform analysis in this course.

**Next Step(s) for Closing the Loop:** The state-of-the-art air-photo analysis is advancing towards drone technology and crowd-sourcing survey. Adequate funding and institutional support can push the future of this course towards such technological update that reflects the university's commitment to STEM education.

**Other Reflections:** While there is still room for improvement, this course has effectively enhanced our students' ability in spatial data interpretation and analysis.

### **Assessment Plans for Next Year**

In Spring 2019, GEOG will assess PLO 1 in Geography 425 (*Advanced Geographic Information Systems*):

PLO 1: Synthesize geographic knowledge, apply research strategies, and use quantitative tools to solve problems of a geographic nature and relevant to a changing world (e.g. spatial analysis).

Several individual GIS projects using a yet-to-be-developed rubric will be used to assess students' ability to synthesize and apply geographic information using quantitative tools to produce sophisticated maps.

### **SUMMARY OF ASSESSMENT**

#### **Program Learning Outcomes (PLO) for *ENVIRONMENTAL STUDIES***

**PLO 1:** demonstrate the knowledge, skills and sensitivities needed to perform effectively as an environmental professional individuals and in a team setting;

**PLO 2:** demonstrate a basic understanding of politics, law, economics, ethics, biology, chemistry, geography and geology as they apply to the environmental studies field;

**PLO 3:** communicate clearly and persuasively concerning a range of environmental issues both orally and in writing and to critically analyze environmental impact reports, statements and assessments;

**PLO 4:** apply scientific reasoning and quantitative and statistical methods applicable in the environmental field;

**PLO 5:** understand the practical/field dimensions of a range of Bay Area environmental issues and their linkages to regional, national and global processes critical to sustainable development;

#### **Program Learning Outcome(s) Assessed**

**PLO 5:** Understand the practical/field dimensions of a range of Bay Area environmental issues and their linkages to regional, national and global processes critical to sustainable development.

## Summary of Assessment Process

**Instrument(s):** A Consultant's Report that results from each student's 9-week field notebook for Environmental Studies 4300 (Environmental Field), the senior capstone course. The report includes re-worked field notes of problems and solutions associated with each field site, plus reflections of lessons learned and knowledge gained. Write-ups from each of the field days must include attempts to link what the student learned at that site(s) with PLO 5. The Consultant's Report must be accompanied by a map of the Bay Area showing locations of the sites the class visited and the approximate route traveled to and from.

**Sampling Procedure:** The sample included all ENVT majors who completed ENVT 4300, the senior capstone field course, in Spring 2018. The Environmental Field Course consists of a series of day-long site visits to explore contemporary issues, problems and emerging areas of interest central to the environmental disciplines.

This course focuses on various aspects of environmental management as it relates to 21<sup>st</sup> century Bay Area imperatives: multiple-use issues in parklands; urban stormwater quality compliance; freshwater and wastewater treatments and water recycling; soil bioengineering techniques in riparian restoration; public access and habitat improvement strategies; environmental restoration and sea-level rise resilience; BART system maintenance and expansion; T.O.D. residential and commercial projects; politics and management of public open space; and an examination of articulation and dysfunction among our region's major public transportation systems.

**Sample Characteristics:** Fifteen (15) of the 18 students who completed ENVT 4300 in Spring 2018 were ENVT majors (3 students majoring in Environmental Science were not included in the sample).

**Data Collection:** Entries in each student's Consultant's Report were read and evaluated by the 3-person ENVT Assessment Committee, consisting of Profs. Larson, Lee, and Woo, using a modification of the rubric developed to assess this course in AY 2014-15.

**Data Analysis:** The Committee used the rubric (accompanying table) to review the Consultant's Reports and determine student demonstration of seven Course Learning Outcomes (CLOs) as follows:

CLO A: Demonstrate knowledge of significant environmental and resource management issues in protected open spaces and watersheds throughout the Bay Area.

CLO B: Identify best practice treatments for freshwater, wastewater and urban stormwater.

CLO C: Demonstrate soil bioengineering techniques common in riparian habitat restoration

CLO D: Demonstrate your understanding of the contemporary land-use planning strategy known as Transit Oriented Development (T.O.D.).

CLO E: Evaluate Bay Area transit systems in relation to their articulation capability.

CLO F: Map the Bay Area showing the locations of sites visited and the routes traveled to and from.

CLO G: Overall linkage to PLO 5

The Consultant's Reports were collectively reviewed by the Assessment Committee using normative statements provided by Prof. Larson, the instructor for ENVT 4300, that described what constituted Mastery, Proficiency, and Still Developing (or lacking development) with respect to each CLO, found in the table below.

PLO 5 - Understand the practical/field dimensions of a range of Bay Area environmental issues and their linkages to regional, national and global processes critical to sustainable development			
ENVT 4300 Environmental Consultant's Report	Mastery of CLO (****/***)Extraordinary or Excellent) [equivalent to A,A-]	Proficiency in CLO (**/* Very Good or Good) [equivalent to B+,B,B-]	Still Developing in CLO (No Stars/ Satisfactory/Not) [equivalent to C or below]
Demonstrate knowledge of significant environmental and resource management issues in protected open spaces and watersheds throughout the greater Bay Area.  (A)	The report clearly highlights and adequately explains the full universe of environmental and resource management issues raised in the field trips in a manner that makes them clearly understandable to a person who was not present on the trip (the topics included in the report will be checked against a master list of issues raised at each site developed by the Instructor Prof. Larson)	The report highlights the full universe of environmental and resource management issues raised in the field trips but the explanation is unclear or lacking in detail in places such that someone who was not present on the trip might not clearly understand (the topics included in the report will be checked against a master list of issues raised at each site developed by the Instructor Prof. Larson)	The report does not highlight the full universe of environmental and resource management issues raised in the field trip and thus it is not possible for a person who was not present on the trip to gain a clear understanding of the locations visited and/or the issues presented (the topics included in the report will be checked against a master list of issues raised at each site developed by the Instructor Prof. Larson)
Identify best practice treatments for freshwater, wastewater urban stormwater  (B)	The specific characteristics of the various water treatments are clearly described, including the agencies responsible, the physical nature, location and functioning of the practices, and the objective with respect to habitat protection, restoration and enhancement (as applicable).	The specific characteristics of the various water treatments are somewhat described meaning one of the following is ill-defined or missing; agencies responsible, the physical nature, location and functioning of the practices, and the objective with respect to habitat protection, restoration and enhancement (as applicable).	The characteristics of the various water treatments are not clearly described; more than one of the following are ill-defined or missing; the agencies responsible, the physical nature, location and functioning of the practices, the objective of the practice with respect to habitat protection, restoration and enhancement (as applicable).
Demonstrate soil bioengineering techniques common in riparian habitat restoration  (C)	The specific characteristics of the creek area(s) visited are clearly described, including the individuals and entities involved, the restoration goals and challenges were clearly articulated, and the soil bioengineering techniques were clearly described and evaluated.	The characteristics of the creek area(s) visited are somewhat described meaning one of the following is ill-defined or missing; the individuals and entities involved, the nature of the restoration goals and challenges, a description and evaluation of the soil bioengineering techniques.	The characteristics of the creek area(s) visited are not clearly described; more than one of the following are ill-defined or missing; the individuals and entities involved, the restoration goals and challenges were clearly articulated, and the soil bioengineering techniques were clearly described and evaluated.
Demonstrate your understanding of the contemporary land-use planning strategy known as Transit-Oriented Development (T.O.D.)  (D)	The specific characteristics of the TOD sites visited are clearly described, the purpose, advantages and disadvantages of TOD were clearly articulated from multiple perspectives (society, planners, residents, etc.) and the opportunities and obstacles to their widespread use in urban planning were critically evaluated.	The specific characteristics of the TOD sites visited are somewhat described meaning one of the following is ill-defined or missing, an articulation of the purpose, advantages and disadvantages of TOD from multiple perspectives (society, planners, residents, etc.), a critical evaluation of the opportunities and obstacles to their widespread use in urban planning.	The specific characteristics of the TOD sites visited are not clearly described; more than one of the following are ill-defined or missing; the purpose, advantages and disadvantages of TOD from multiple perspectives (society, planners, residents, etc.), the opportunities and obstacles to their widespread use in urban planning.
Evaluate Bay Area public transit systems in relation to their articulation capability  (E)	The public transit systems taken are identified and explained at a high level of detail (showing evident research in addition to trip-based observations) and the efficacy and functionality carefully and systematically evaluated using both objective (factual, researched) and subjective (observational, anecdotal) criteria.	One of the public transit systems taken is not well identified and explained at a high level of detail or the efficacy and functionality is not carefully and systematically evaluated using both objective (factual, researched) and subjective (observational, anecdotal) criteria.	The public transit systems taken are not all clearly identified, minimal or no additional information was provided to show evidence of research on the systems, and/or the efficacy and functionality of the systems were not evaluated with an acceptable range of criteria.

PLO 5 - Understand the practical/field dimensions of a range of Bay Area environmental issues and their linkages to regional, national and global processes critical to sustainable development			
ENVT 4300 Environmental Consultant's Report	Mastery of CLO (****/***Extraordinary or Excellent) [equivalent to A,A-]	Proficiency in CLO (**/* Very Good or Good) [equivalent to B+ B,B-]	Still Developing in CLO (No Stars/ Satisfactory/Not) [equivalent to C or below]
Map the Bay Area showing locations of the sites visited and the route traveled to and from.  (F)	The map provided with the field report clearly identified each of the site locations correctly and accurately reflected the route taken between them	One of the site locations or one of the routes had some minor inaccuracies marked on the map.	One or more of the site locations or one or more of the routes were incorrectly marked on the map.
Linkage to PLO 5  (G)	Each field trip component was clearly evaluated critically and concisely to show obvious understanding of the particular site-specific issues presented while demonstrating a clear ability to identify and explain their broader relevance to regional, national and global processes critical to sustainable development (as applicable) and citing knowledge acquired from prior courses.	One or more field trip components showed a deficiency in understanding or concisely communicating the particular site-specific issues presented and in identifying and explaining their broader relevance to regional, national and global processes critical to sustainable development (as applicable) or citing knowledge acquired from prior courses.	The reportage on the field trip components showed only a partial understanding of the particular site-specific issues represented and generally failed to make and explain connections to regional, national and global processes critical to sustainable development. Key information was either missing or inaccurate.

## Summary of Assessment Results

**Main Findings:** All fifteen (15) ENVT majors submitted a comprehensive Consultant's Report. Mastery of the CLO was rated 4 or 3 (Extraordinary or Excellent); Proficiency in the CLO was rated 2 or 1 (Very good or Good); and Still Developing (or lack of development) was rated 0 for this senior capstone. Members of the Committee (Reviewers 1,2,3) rated CLOs A, B, C, D, E, F, G in each of the Reports. Average ratings for each CLO by Reviewer were summed and an average score derived.

	Reviewer 1	Reviewer 2	Reviewer 3	Average
CLO A:	3.1	2.9	3.2	3.1
CLO B:	3.1	2.9	3.2	3.0
CLO C:	3.0	2.9	3.0	3.0
CLO D:	2.9	2.6	2.9	2.8
CLO E:	3.0	2.9	2.9	2.9
CLO F:	3.3	3.1	3.2	3.2
CLO G:	3.1	2.9	3.1	3.0

The Average shows that the class average for each of the CLOs (ranging from a high of 3.2 to a low of 2.8) was "Excellent" to "Very Good". The highest was the ability to map the locations of field sites and the routes to and from them; the lowest was demonstrating an understanding of Transit Oriented

Development. This macro-level assessment confirms that the group as a whole demonstrated Proficiency (or higher) in all CLOs.

The distribution of individual scores puts a finer point on the level of achievement demonstrated by this field class. If a student was rated a 4 (Mastery) for all 7 CLOs by each of the three reviewers, the score would be  $(4 \times 7) \times 3 = 84/3 = 28.0$ ; similarly, if a student rated a 2 (Very good) for all 7 CLOs by each of the three reviewers, the score would be  $(2 \times 7) \times 3 = 42/3 = 14.0$ .

Distribution of scores for the 15 ENVT Majors:

28-25: 3

24-21: 3

20-17: 8

16-14: 1

All 15 students demonstrated they were at least proficient in the seven Course Learning Outcomes. Nine of them were rated in the “very good” sector of Proficiency. Six students, with scores over 21, demonstrated a Mastery of the material. The top three scores were achieved by students whose overall Consultant’s Reports were among the best ever produced in the long history of this field course. In metrics separate and apart from demonstrating proficiency in the CLOs, students in this field course distinguished themselves as the most cohesive, efficient, and respectful group working at field sites of any class in the past 20 years. Given that, it comes as no surprise that their collective performance regarding the CLOs would also be the best ever achieved by students in this course.

**Recommendations for Program Improvement:** Some of the CLOs for this course will be integrated into the new senior capstone course ENVT (*Environmental Projects*), probably on a rotating basis as the main projects will vary from year to year. Also possible is the inclusion of some CLOs into ENVT 411 (*Environmental Impact Analysis*), a course that does not have a field or lab component presently but may be modified to include such in the near future.

**Next Step(s) for Closing the Loop:** For ENVT 4300, it was “dropping the curtain” more than “closing the loop.” It’s always an expensive course to operate on the quarter system. The faculty determined during the semester conversion process that any attempt to offer this venerable course (taught annually by Prof. Larson since 1990) on semesters would be cost-prohibitive. So it was not converted: The curtain came down last June. It is hoped that ENVT 4300’s legacy will live on in other parts of the Environmental Studies curriculum.

**Other Reflections:** Field-based, outdoor lab instruction is quintessential hands-on, HIP (High Impact Practices) education. It’s also more expensive. The University could ensure that this form of teaching maintains a prominent place in the curriculum via a dedicated funding stream emanating from Academic Affairs for HIP courses university-wide.

### **Assessment Plans for Next Year**

In Spring 2019, ENVT will assess PLO 1 in Environmental Studies 445 (*Water and Watershed Resources*):

PLO 1: Articulate key threats to the global environment, the scientific basis of the understanding of those threats, their underlying causes and implications for society.

This course is expected to require a few threat identification and assessment assignments, a term paper and exams. Using a yet-to-be-developed rubric, students' ability to identify and scientifically explain threats to global and regional water resources and their broader implications will be assessed.

### III. **DISCUSSION OF PROGRAM DATA & RESOURCE REQUESTS**

*Each program should provide a one-page discussion of the program data available through CAPR. This discussion should include an analysis of trends and areas of concern. Programs should also include in this discussion requests for additional resources including space and tenure-track hires. Resource requests must be supported by reference to CAPR data only.*

*Requests for tenure-track hires should indicate the area and rank that the program is requesting to hire. If a program is not requesting resources in that year, indicate that no resources are requested.*

#### A. **Discussion of Trends & Reflections**

##### **Notable Trends:**

Overall headcount data was discussed in the section on **Students** above. Another way of looking at how a department and its programs contribute to the university's mission is assessing overall FTES data. On that score, AGES has more than carried its weight. The Fall FTES snapshot for the past three years reveals that AGES programs, collectively, have increased each year: 2015: 290 FTES; 2016 299 FTES; 2017: 322 FTES. [Fall 2018 will also exceed 300 FTES.] The SFR for the Anthropology program over the same three-year period has also steadily risen: 27.69 to 29.65 to 31.53, an increase of 3.84, the second highest gain of the 18 programs in CLASS. During the same time frame, the SFR for Geography & Environmental Studies increased 1.28.

All AGES programs are presently dominated by upper-division students. Juniors and seniors annually comprise over 80% of AGES majors; in Fall 2017 it was 87%. The Male/Female ratio in the AGES programs over the past three years shows that Females have dropped slightly, from 61% in 2015 to 58% in 2017. Hispanics are the largest Ethnic group in AGES, comprising 49% of the majors in Fall 2017. The average age for majors in the three programs has hovered around 25 years. As had been noted in prior reports, the "older than normal college age" for undergraduates underscores what anecdotal evidence has long suggested: that students commonly find their way into the AGES majors via a non-direct pathway through college, often involving a break in the college experience and then returning as a "re-entry" student in one of our majors.

##### **Reflections on Trends and Program Statistics:**

*Provide your reflections on the trends discussed above and statistics and supplemental information presented in this report.*

As noted above, the overwhelming percentage of majors in the AGES programs are juniors and seniors. This percentage was achieved by a combination of CSUEB native students declaring one of our majors and the annual arrival of transfer students. The faculty believed that capturing more transfer students required that the programs be re-designed during the semester conversion process to better align with

2-year colleges throughout the state. In the quarter-system, our programs may have looked much different than the semester programs of the other Bay Area CSUs and it probably cost us students.

AGES will make a concerted effort to offer additional sections of lower-division survey courses on semesters to better expose its programs to undeclared lower-division students. It is uncommon for entering freshmen to have had exposure to our disciplines prior to arriving at the university.

Anthropology, Geography and Environmental Studies/Science are not subjects commonly found in high school curriculums. In order to grow the three majors from within, AGES plans to promote the subjects through more frequent offerings of large introductory survey classes. This process has already begun with Anthropology and to a lesser extent with Environmental Studies. More frequent offerings of LD Cultural Geography is the plan for AY 2018-19 and beyond.

The addition of archaeologist Dr. Albert Gonzalez to the faculty in 2015 has, we believe, contributed to the robust increase in Hispanic students in the Anthropology major. He has embraced the reality that he is in fact a role model by force of example and so requests to teach a large intro anthropology class every term. The results thus far have been pleasing for the department. Conversely, the loss of two tenured female anthropologists in recent years (one to U.C. Berkeley and the other to retirement) has negatively impacted the program overall and the socio-cultural concentration in particular.

## **B. Request for Resources**

### Request for Tenure-Track Hires

As identified in Section I.B.5 above, AGES will submit in AY 2018-19 a tenure-track search proposal for an *Environmental Anthropologist* at the level of assistant professor. This will be primarily a socio-cultural anthropologist, filling the programmatic area of greatest need in AGES. The new hire will have responsibility for at least five socio-cultural anthropology courses and also contribute to the Environmental Studies by providing our students access to a culturally contextualized Environment Studies program. This can be achieved by teaching the new GE Overlay course in Sustainability and Social Justice and developing a new cross-listed (ANTH/ENVT/GEOG) course along the lines of “Climate Migration and Displacement.” The new hire’s courses will contribute to the university’s ILOs, particularly those involving Sustainability and Diversity.

This new hire is also essential to retention and graduation imperatives and to closing the achievement gap. We expect this assistant professor in *Environmental Anthropology* to have a track record that includes application of High Impact Practices including, but not limited to, service, community and collaborative learning and/or student-engaged research, as is currently practiced by both Profs. Garbesi (Solar Suitcase projects) and Gonzalez (Adobe Oven Project).

AGES is a department approaching the cusp of a significant demographic transition. Having already lost three faculty members to retirement since the 2014 merger, AGES currently is home to three other regular faculty over the age of 60. Five faculty members have been at the university 20 or more years. At present, there is only one assistant professor in the department. Consequently, AGES has one eye beyond the coming year, to 2020 and beyond.

Proposal projected to be Submitted in 2019-20:

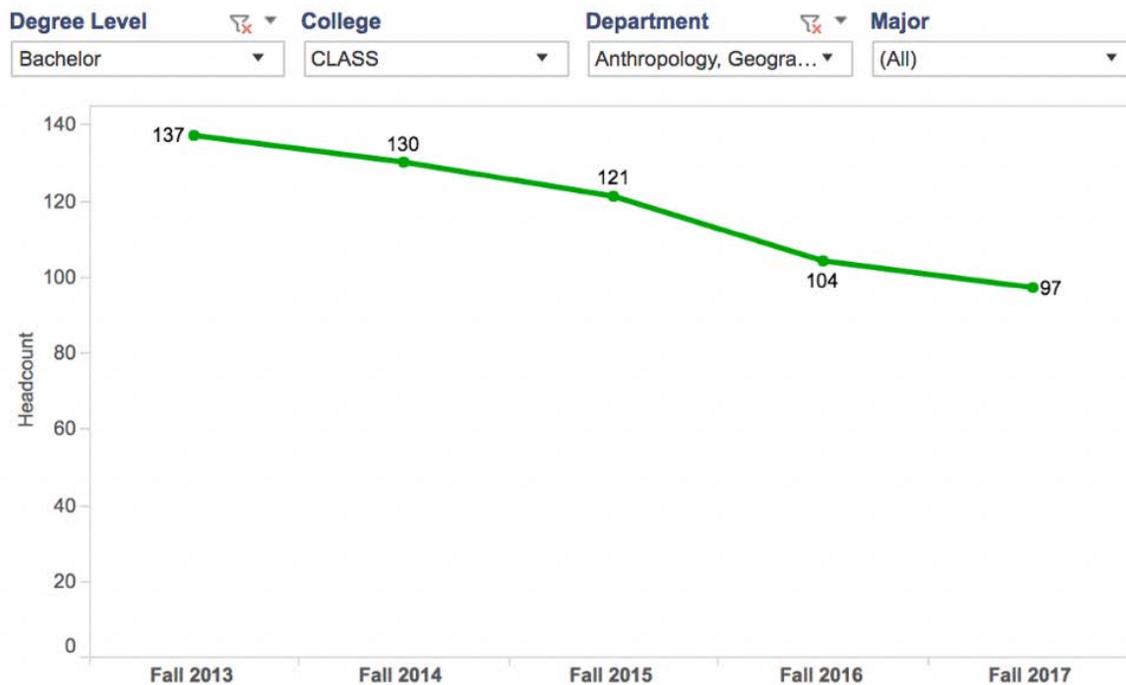
Position: *Environmental Geography (hybrid)*

The preferred candidate will have expertise in the physical Earth, its processes and natural resources. Curricular needs in Geography and Environmental Studies will require the ability to teach a combination of courses focusing on the global change and the Anthropocene: climate change, global land-use change, earth-surface processes, Geographic Information Systems, and human responses/adaptations to environmental change.

### Request for Other Resources

AY 2017-18 was a banner year for AGES. The department filled a critical opening in its administrative staff; it received a high-end technology upgrade and thorough refresh of its GIS/Computer Cartography Lab; it acquired space for Assistant Professor Albert Gonzalez to create a lab to analyze and construct earthen building materials; and it received the entire amount requested of A2E2 funding to support an ambitious Museum of Anthropology exhibit that will open this academic year. So other than hoping that a similar A2E2 request for *next* academic year is approved, AGES is not requesting other resources in 2018-2019.

### Overall Enrollments



CATEGORY	FALL 2015	FALL 2016	FALL 2017
Headcount (Majors)	121	104	97
FTES	103.13	92.73	83.6
Upper Division/Lower Division (Seniors and Juniors/Sophs and Frosh)	23/98	12/92	13/84
Male/Female Ratio of students	47/74	52/52	41/56
Ethnicity (Hispanics)			
No	36	40	48
%	30%	38%	49%